CITIZENS

From: abbott
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, December 13, 2010 02:11PM
Subject: GE Toxic Waste Dump- Forrest St. Lee (Tyringham) MA

History: This message has been forwarded.

Dear Susan:

I have just been alerted to the fact that GE is considering putting a permanent toxic waste dump for the PCB's they have created at a Forrest St., Lee (Tyringham?) site. My husband and I have a home near this street and we are completely opposed to this idea.

Please advise us on this matter as more information becomes available. Again, we are completely against the idea of a toxic waste site on Forrest St., Lee (Tyringham).

Thank you for your attention to this matter.

Sincerely,

Anne and Ralph Abbott

Tryingham,MA

Mailing address:

December 31, 2010

Ms. Susan Svirsky
EPA Rest of River Manager
C/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

To Ms. Svirsky,

My name is Albert J. Adams and I live in Pittsfield, Massachusetts. I have enjoyed canoeing and hunting on the Housatonic River. I am writing to you to ask that a sensible solution for "The rest of the river" be considered. The E.S.A I feel is the best solution. Please don't destroy the natural beauty of the river and land. Please do not put the land fill in Berkshire County. I am a member of Ducks Unlimited and the NRA and know that conservation is important to all wildlife. The river is in better condition now than ever before. It looks poor in Pittsfield where they did a lot of work. All the rocks and landscape will need many years to look natural again.

I went canoeing today 12/29/2010 down the Housatonic River as far as I could because of the ice from the snow storm recently and it was breathtaking. I saw many ducks, geese and other birds. I also watched the DVD that was sent to me on the river. Please do the right and best thing for the river and **ALL** wildlife. Thank you for taking the time to read this letter.

Sincerely,

Albert J. Adams

Albert J. Adams

Pittsfield, MA 01201

RECEIVED
JAN 03 2011
By

From: Katharine Adams
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Rep.SmittyPignatelli@hou.state.ma.us, bdowning@bendowning.org, Rep.ChristopherSperanzo@Hou.State.MA.US

Date: Monday, January 24, 2011 11:49AM
Subject: Housatonic River Clean-up

As part of the "comment period" ending January 31, 2011, please DO agree with the US Environmental Protection Agency on Phase II of the Housatonic River Clean-up and make GE clean up the mess!

Thank you,
Kathy Adams

Katharine Adams
Graphic Design & Copywriting
Otis MA 01253

A low-impact alternative

Kathy Adasiak to Jim Murphy 01/30/2011 01:39 PM

We urge the powers that be to protect the wildlife, human life, and beauty of the Housatonic River and avoid the Phase II. clean up plan.
Sincerely,
Kathy Adasiak
David Adasiak

From:	Annie Alquist
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic River PCB dumping plan
Date:	Tuesday, December 14, 2010 12:41:14 PM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Annie Alquist

From: "Jane Altman"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Sunday, December 12, 2010 09:56AM
Subject: Housatonic Cleanup

History: This message has been forwarded.

I urge you to reject GE™s claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.
But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.
And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Jane Altman

From: Andrew Altsman
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, January 31, 2011 01:07PM
Subject: Rest of the River

January 31, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201
Dear Ms. Svirsky:
As a concerned citizen of Berkshire County and a recreational user of the Housatonic River I am writing to comment on General Electric's Revised Corrective Measures Study, which was submitted to the EPA for review in October.
I strongly urge you to consider a low-impact solution that does not involve extensive dredging of the entire 10-mile stretch of the Rest of the River. Unlike the first phase of this clean-up effort, which was largely located in an industrial district, the Rest of the River flows through a natural, forested and wetlands area filled with wildlife and recreational activities enjoyed by residents and visitors alike.
A radical dredging effort, similar to that undertaken by GE previously, would last a minimum of 10 years, during which time thousands of trucks and construction equipment vehicles would travel through residential areas in southern Berkshire communities that rely on tourism for economic survival. This major effort would also require staging areas and dewatering facilities to be built through these forested and wetlands areas causing widespread, extensive damage. Once complete, the dredging would forever change the natural landscape of the river and our communities, preventing residents from enjoying the area as they have for hundreds of years.
I urge the EPA to consider a low-impact solution to the clean-up effort that meets rigorous EPA human health standards, but protects the integrity of the river and the important role that it plays in the Berkshire County economy and quality of life.
Sincerely,
Andrew Altsman

--
Andrew Altsman

Housatonic River cleanup

Sal Amendola to Jim Murphy 01/28/2011 06:28 PM

Mr. Jim Murphy
Community Involvement Coordinator
EPA New England, Region 1
5 Post Office Square - Ste 100
Boston, MA 02109-3912

Mr. Murphy,
A clean, healthful, non-toxic environment is paramount to all life on Earth, not least of which, human beings. I want to believe that you will do truly what is best toward that end.

As an artist, and supporter of the Norman Rockwell Museum, I was asked to add my voice toward the adoption of a "low impact solution" to the cleanup of the Housatonic River. If, indeed, this is truly viable, I urge you to choose this solution, uninfluenced by financial or political interests. If the honest and honorable solution is the more drastic plan, which the Museum opposes, then however painful, choose that as the solution.

Whichever you choose, I hope that you will do the right thing,

Sincerely,

Sal Amendola

Brooklyn, NY 11219-5923

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Monday, January 24, 2011 9:13 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (023211319) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:I would like to see the P.C.B.'s,which are some of the most dangerous toxins known, totally cleaned up and out of the river. We need to do this now so future generations, including my children, can have a clean river and a healthy environment to live in. Yes we will have to put up with a not so pretty clean-up site on the river, but it's worth it, for clean water, air and soil for all animals, birds and humans.

03) Name:Jay Amidon

05) (required) State:Ma

Pittsfield, MA 01201
Email:
December 14, 2010

Ms. Susan Svirsky
Project Manager – Rest of the River
EPA
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

RE: PUBLIC COMMENT ON GE'S REVISED CORRECTIVE MEASURES STUDY: REST OF THE RIVER

Dear Ms. Svirsky:

I am a resident of Pittsfield, Massachusetts and the mother of two teenage children. I am writing to urge the EPA to do two things: First and foremost, mandate that General Electric clean the toxic PCBs from the rest of the Housatonic River to Long Island Sound even if it means that long term dredging will occur in ecologically sensitive areas. Second, I urge you to recognize that GE's latest ploy, calling for an"ecologically sensitive solution" is a mere propaganda campaign to dodge responsibility for remediating the pollution it caused.

With respect to dredging the river, PCBs are toxic man made substances that can cause cancer, low intelligence, developmental delays and other diseases. Our children have been forced to come into contact with these pollutants. For example, my son would play baseball on the field at Allendale School when PCBs were being dumped next to it at Hill 78. Only a chain link fence separated the children from the toxics. When foul balls flew over the fence, some boys would climb it and retrieve them from the toxic dump area. GE apparently did not care that children would play next to a toxic waste dump and it fought very hard to purposely establish the dump next to an elementary school and ball field. It is ludicrous that this same company now presents itself as interested in "ecology". Don't fall for it.

I advocate a clean up so that future generations can fish and swim in the river; where I don't have to tell my son's Boy Scout troop to be sure to wash off their shoes after stepping into the polluted sediment after a canoe trip in Lenox.

Some well meaning people are using a catchy slogan to call for a scaled down clean up. They glibly say "don't ruin the river to save it". However, I sadly say that the river is already ruined. Housatonic river fish have some of the highest levels of PCBs ever

RECEIVED
DEC 15 2010
By

recorded. A wood duck from the Housatonic had 3700 parts per million PCB when adjusted for fat content. A sportsman or woman who would hunt these fowl would have to dispose of them in a high level, regulated toxic waste facility! This is our chance to clean the river for future generations. Yes, the clean up will be long and damage beautiful vistas for a period of time. But it is a necessity for a proper clean up. Ironically those who advocate a lesser clean up say that mother nature will take care of PCBs. However, they doubt that mother nature will restore the habitat of a cleaned up river.

Moreover, I find that the restoration efforts already performed by the EPA in Pittsfield have been very successful. Mayflies (a species that will not survive in polluted waters) have been found on areas that have been cleaned up. Even the once ugly rip rap, so maligned by many citizens, now is being hidden by plants. I believe EPA will continue successful restoration efforts along the rest of the river.

One final thing: the dumps GE is proposing. No more dumps should be allowed in Berkshire County. All toxic material should be shipped to other facilities out of state or a new dump should be established in Fairfield, Connecticut, home to GE. Bring the toxics home. GE claims the dumps are safe, so put them next to corporate headquarters.

Please do not let GE fool you into using the dumps as a bargaining chip to get you to agree to a minimal clean up, e.g., no dumps in exchange for a lame clean up. It is obvious that this is a strategy it using. Please don't fall for it.

No matter how long it takes, please hold General Electric accountable to clean up after itself. Our children are depending on you.

Sincerely,

Valerie A. Andersen

Valerie A. Andersen

From: johnmrev
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Jane Winn <jane@thebeatnews.org>, Dick Noble

Date: Thursday, December 09, 2010 05:16PM
Subject: Rest of the River comments

History: This message has been forwarded.

Hello Susan: Thank you for your reminders about the response comment period. Here, in brief, are my concerns: 1. That remedial action on the River bed and flood plain be kept to the minimum so as not to disrupt the fragile ecological environment anymore than is absolutely necessary. 2. That within that context, any clearly dangerous "hot spots" that deserve removal NOT be dumped in Berkshire County or anywhere where coontamination of a watershed could still occur, but rather be treated and detoxified before potential recycling. 3. That whatever process is initially utilized be regularly monitored both for desired effectiveness and for comparison, as time goes on, to other methodologies that may become as viable and less disruptive, e.g. on-site biological treatment.

From: hmeehan10
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: PCBs in the Housatonic River
Date: Wednesday, December 15, 2010 7:08:13 PM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric’s 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible.

It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE’s claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly, I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Tuesday, January 25, 2011 6:24 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (024182414) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:the public does not know enough about what pcbs do to you once it enters your body and never leaves just what it does.where is the board of health? what about the ground water. why doesnt ge inform the public where the pollution is and what is the specific amount of time you can spend in each area instead selling or giving the severely polluted areas to the state the city or other public entities clean itup or contain it and advise the public where it is so the people can stay out of them areas big posted signs so that people not sneaky little articles in the paper for one day EPA YOU WORK FOR THE PEOPLE DO YOUR JOB

03) Name:Joe public
04) Organization:citizen
05) (required) State:MA

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Tuesday, January 25, 2011 6:38 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (024183804) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:thru experience working at a couple of ges clean ups CLEAN UPS? dont go by what the ge says do your own tests they (ge) stack the deck i seriously doubt their motives clean it up yourselve and charge the GE

03) Name:no pcbs left pittsfield yet
04) Organization:redo the cd(crooked decree
05) (required) State:MA
06) Email Address:buy a polititition
07) Phone #:clean is clean

From: dcarlo01
Sent: Thursday, January 27, 2011 8:38 PM
To: Palmieri, Linda
Subject: Fw: Comment Period Extended Housatonic River

-----Forwarded Message-----
>From:
>Sent: Jan 27, 2011 8:19 PM
>To: Susan Svirsky <svirsky.susan@epa.gov>
>Subject: Fw: Comment Period Extended Housatonic River
>
>I grew up at 40 King Street, Pittsfield, Massachusetts in a home originally owned by my grandparents and then given to my parents when I was an infant. There was also a sizable garden 8in our back yard and the Housantonic River bordered our property in the back. At one point we had chickens in the area of the property nearest the river. The chickens were used for eggs and meat, when I was very young. At the end of King Street was a dump. In between our property and the dump was a wetland. The river occasionally flooded, sometimes up to the back of the house. I do not recollect it flooding into the house during my time there. I moved out when I was in my late 20's.
>
>My parents continued to live there until they died as did my grandparents. My father died of lung cancer. I had thyroid cancer but survived. My only sibling died of lung cancer. There is some evidence that my sister's cancer and my father's cancer was due to my father's job cleaning out boilers which had asbestos in them. My mother had several kinds of cancer and other ailments when she died in 1999. My sister died in 1978 a the age of 32. My father died in 1990. He was born in 1916. My mother was born in 1917.
>
>Now back to the dump, there were barrels later found out to have contained PCB's
>that were taken to the dump. These barrels eventually leaked.
>
>Besides having had thyroid cancer, I have a rare autoimmune disease, polymyositis. It has no cure, but it has very rough treatment. Theories abound what causes such diseases. Environmental factors are one of the theories.
>
>_lease feel free to contact me should you require further information.

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Friday, January 28, 2011 4:29 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (027162845) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:I am writing about Phase II of the Housatonic River Cleanup. The area of the river in Phase II flows mostly through wildlife and residential areas. This is a beautiful area worth preserving. Dredging would change the landscape of the river, consequently negatively impacting tourism, the Berkshire County economy, and the quality of life in that area. Furthermore, physically removing sections of the river would release toxic PCBs downstream, endangering the wildlife that lives there.

I urge to consider a low-impact solution, as advocated by the Smart Clean-Up Coalition, that would not further negatively impact the river.

03) Name:

05) (required) State:NY

DATE:

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. Many options have been proposed for the cleanup of the River.

I fear that many of the proposed "remedies" will not be a benefit to the people of South Berkshire County or to the River itself. We must protect the River and what it means to those of us who live here and to those who come to the area to enjoy what the Housatonic River and the abutting communities have to offer. I think that it would be best to leave the River alone to recover naturally. However, if something must be done, then let it be a reasonable middle ground. The study that GE submitted includes the Ecologically Sensitive Approach. That less damaging and targeted approach to cleanup is best for Berkshire County.

Please make sure that the answer for the River is reasonable and beneficial to the people, animals and plants that already thrive along its banks.

Sincerely,

Robert and Veronica Caille

Pittsfield, MA. 01201

RECEIVED
DEC 16 2010
By

From: Meri Avratin
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Sunday, December 12, 2010 12:35PM
Subject: GE PCB's In My Backyard

History: This message has been forwarded.

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

From:	Robby Baier
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	PCB Cleanup
Date:	Thursday, December 09, 2010 8:10:48 AM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am a Housatonic Resident, member of Housatonic the Beautiful as well as Project Housatonic (This letter does not necessarily reflect those of the members of those boards). I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

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And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you,

Robert Baier

ROBERT BAIER

Housatonic The Beautiful
Project Housatonic

From: Jim Baker
To: Svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: Rest Of the River Project
Date: Monday, November 08, 2010 12:37:33 PM

Dear Ms. Sivirsky

My wife and I have just finished watching the DVD about three options being considered for the remaining effort to clean up the Housatonic River. As residents of Berkshire county, we are greatful for the efforts conducted to date to clean up the Pittsfield sites around GE and that portion of the river that flows through the city.

However, we both feel very strongly that the remainder of the river should be left alone and allowed to recover naturally. Both the SED 3/FP 3 and the ESA approach have major impacts on river eco systems that, in our opinion, are significantly worse than the risk posed by the amounts of PCBs remaining in the River.

Jim and Karen Baker

Barack, Mitchell to: Jim Murphy 01/21/2011 02:35 PM

History: This message has been forwarded.

GPlease consider a very low impact to cleaning up the Housatonic River in the Berkshires.

Mitchell Barack

Lenox, MA 01240

From:	Carol Bosco Baumann
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	General Electric, PCBs and the Housatonic River Watershed
Date:	Monday, December 13, 2010 9:34:03 AM

December 13, 2010

Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

We believe that the EPA should require that General Electric be held fully accountable to eradicate the PCBs in an eco-conscious manner out of the Housatonic River. It would not be acceptable for GE to dump them in sites located along the river, further contaminating land that is beloved and used by Berkshire residents. GE is one of the most successful and wealthiest companies in the world and should be held accountable for its actions.

In regard to General Electric's 2010 Corrective Measures Study, we believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem – there is considerable evidence pointing to the fact that this is a dangerously false statement. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks. We urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

We also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly, we urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup. And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation. Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you for your time and consideration to this critical matter.

Sincerely,

Mark & Carol Bosco Baumann
Housatonic, MA

Housatonic Cleanup

jack batty to: Jim Murphy 02/01/2011 01:22 PM

Dear Mr. Murphy,

As a former Berkshire resident and friend of the Norman Rockwell Museum, I strongly urge you and the EPA to drop plans for the drastic cleanup of the Housatonic River between Pomeroy Avenue in Pittsfield and Lenoxdale.

I need not tell you about the unintended consquences of such draconian measures. Unleashing toxins and PCBs downstream would be a disaster. The impact of heavy equipment and dislocation of wildlife and the river bank is unnecessary. To paraphrase the general in Vietnmam, "Do we need to destroy the river in order to save it?"

PCBs are not public health enemy No. 1. Far from it. The impact on human health has been debated for years and there are many studies that raise serious questions about current percpetions. A reasoned approach to cleanup, without additional environmental harm, is required. Please take this into consideration. Thanks for your attention.

Jack Batty

Easton, MD 21601

From: Baver, Jay
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda; murphy.jim@epa.gov
Subject: Public Comment Rest of River
Date: Tuesday, December 14, 2010 2:24:18 PM

Susan,

As a student under Dr. Milos Krofta, at the former Lenox Institute of Water Technology, it was impressed upon me through rigorous scientific guidance that environmental challenges can be met with innovative, natural and elegant solutions given enough thoughtful investigation, research and time. The challenge of removing PCBs from the Housatonic River demands all of these. The EPA needs to be operating under the premise that achieving decontamination without major disturbances to the ecology of the river and floodplain is not only possible, but the only reasonable course of action. If more time is needed or innovative remediation methods need further testing the time should be taken to thoroughly investigate these options. Deadlines are important, but the river wasn't contaminated on a schedule and flexibility should be exercised when considering a time frame and method for clean up.

As I pursue northern pike on the frozen waters of the Housatonic this winter season I am fearful that it could be my last. I am not convinced that the methods of cleanup being proposed or ultimately decided upon will make the river and its surrounding environment any safer, but I know for sure that an invasive cleanup will alter the ecology of the river for generations.

The decision on how to clean up the river is now in your (EPAs) hands. I hope you have listened to all stakeholders and not only make the right clean up decision, but one that embodies the elegance of the river and the county it flows through.

Jay Baver
Lenox, MA 01240

Hinsdale, MA, 01235

Dear Susan

I write this letter with concern, the fate of a river and its corridor from Pittsfield to Woods Hole Lenox.

Berkshire County has been my home for seventy one years, this coming January. The lost of my prestine ecology over the years has been of concern to me, as we well know once we advance in year there is no return to the innocence of our youth. Conservation, as the articles appear in the printed reviews brings back reflections of a time long ago growing up in North Adams, MA.

The north branch of the Hoosac river takes its source from the small brooks of northern Berkshire County and the small streams of southern Vermont. As a young boy going to grammar school in North Adams I crossed the Hoosac river by way of the old Eagle Street bridge. My brother and I would often stop to watch the flow of the natural and wild river with its seasonal show of grandeur and surprising rewards of wildlife and flora not to mention dancing baby stocks as the water lifted itself over the rocks.

RECEIVED DEC 29 2010 By

The Hoosac river was a daily from to be viewed on our walk to and from school in our youth.

Today the Hoosac river from Miner St & Union St to the western side of North Adams is an open concrete raceway void of fish, fauna and poetry and most of all the ~~quite~~ quiet moments of stillfullness that one would take as they viewed the river in its natural corridor.

The ducks no longer sail the eddies or cover themselves with the overhangs of trees and river embankment growth, no longer to you see the wildlife that seek shelter and food by the water's edge.

All gone no longer the river of my youth.

Hopefully the course of remediation of the Housatonic River will be such that the permits set forth for its recovery will reflect holistic caring for fish, fauna and flora, coupled with sensible safety for neighbor and community and an appreciation of its natural wetlands and their value for tomorrow.

Yours truly

Paul A Belanger

From: Studian
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Sunday, December 12, 2010 09:42AM
Subject: Fwd: Housatonic River - Important

History: This message has been forwarded.

Please consider that we have signed this letter. Stuart and Diane Benedict

-----Original Message-----
From: Joanne Kelly
To: Jane Altman
Sent: Sun, Dec 12, 2010 8:38 am
Subject: Housatonic River - Important

Our River could use your help.
Must be done before December 15
Please sign this letter asking for more clean-up of the Housatonic River .

Thanks, Joanne

Send to: svirsky.susan@epa.gov

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

Thank you for helping the Housatonic River. It needs more help now.

I urge you to reject GE™s claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.
But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.
And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

(Sign your name here)

----- Original Message -----

From: Laurie May Coyle
To: John Coyle ; Barb May ; Joanne Kelly ; Judy Zahn ; Rebecca Hoffmann ; Jaclyn Mason Houghton ; Sarah Graulty ; Heidi Stucker ; Vanessa Maroni ; Stephanie Gravalese/atomsatwork accessories ; Stephanie Spina ; Stephanie Stucker ; Sara Mugridge ; Sylvie Potashner ; Seth ; Cameron Allshouse
Sent: Saturday, December 11, 2010 7:42 PM
Subject: Housatonic River - Important

The following is a message I just received through a friend; this is important and only takes a minute to send a copy of the letter provided.

With thanks from you friends who live along the river,
Laurie

From: ldangelo
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Friday, January 28, 2011 11:32AM
Subject: Comm ent

Dear Susan ,

As a mother of a family who has already had environmental water problems I feel the last sentence in Wanda Boeke ‘s letter to the Eagle sums it up best .” Don’t be fooled by a company that now spends $25 billion on ‘green” inventions while balking at spending $300 million to clean up “ Especially disturbing is their attempt of convincing us through advertising ,that they are a green caring company ,Ecomagination ….GE ,clean up your own backyard first .

Lesley Berggreen D'Angelo

Advertising Consultant

The Advocate Weeekly

413 528 3683

413 496 6148

Berkshire County League of Sportsmen

ATTENTION SPORTSMEN AND OUTDOOR ENTHUSIASTS: TAKE ACTION NOW BEFORE IT'S TOO LATE!

You can help save the Housatonic in three easy steps!

STEP 1: Watch the enclosed movie, The Housatonic: The Fate of a River.
STEP 2: Sign up for the email list at www.housatonicoptions.com to receive updates on the River clean up.
STEP 3: Tell EPA not to destroy the River.

Send your comments on the next steps for the Housatonic River no later than January 17, 2011:

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

By e-mail to: svirsky.susan@epa.gov and cc: Linda.Palmieri@WestonSolutions.com

I have included some suggested talking points for your letter, but please take a moment to put these in your own words.

- I am a resident of PITTSFIELD and I have enjoyed (fishing/hunting/kayaking/canoeing) along the Housatonic River.
- I'm writing today to ask that you consider a sensible solution for the "Rest of the River."
- The Ecologically Sensitive Approach (ESA) is a less damaging approach that will provide for a cleaner river while maintaining the nature and character of the river necessary to support the diverse wildlife.
- Don't destroy the river to fix it.
- Don't put the landfill in Berkshire County.
- Sincerely, Your name, your mailing address

RECEIVED
DEC 23 2010
By

Take ten minutes today to ensure that we can enjoy the river for years to come!

OVER →

I GREW UP ON EAST NEW LENOX RD
I AM 35 YEARS OLD NOW AND I
ENJOY HUNTING (BIRDS) AND FISHING ON THE RIVER
WE (ME & FRIENDS) WOULD LAUNCH A FLAT BOTTOM BOAT
OR CANOE AND FLOAT TO WOODS POND ENJOY THE
WILD LIFE. IF THEY TRY TO REMOVE WHAT
LITTLE P.B.C. ARE LEFT THEY WILL DESTROY THE
RIVER AND WILL NOT GET THE P.B.C OUT
BECAUSE THEY ARE SO LEACH INTO THE
GROUND IT WOULD NOT BE EFFECTIVE AT ALL.
WASTE OF BEAUTY AND MONEY. PUT THE
MONEY THAT THEY WOULD SPEND AND PUT IT
INTO THE TOWN TO HELP OUT THE COMMUNITY /
I ALSO HUNT OCTOBER 1ST AND TOOK TWO LARGE
BUCKS THIS YEAR, THIS PROCESS IS NOT THE
ANSWER.

Edmund P. BENTELLI JR

Edmund P Bentelli Jr

BENTELLI LANDSCAPING

PITTSFIELD, MA 01201

Berkshire County League of Sportsmen

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- Don't destroy the river to fix it.
- Don't put the landfill in Berkshire County.
- Sincerely, Your name, your mailing address

Agnes Bergotte
Pittsfield, MA 01201

RECEIVED
DEC 29 2010
By

Take ten minutes today to ensure that we can enjoy the river for years to come!

Do not destroy the River

DATE:

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

I am writing to comment on General Electric's Revised Corrective Measures Study which was submitted to you for review in October. Over the next few months, EPA will consider various options for cleaning up the rest of the Housatonic River. As a resident of Pittsfield, I urge you to protect the natural beauty and ecology of our River. There needs to be a reasonable, common sense approach to how that is done.

One of the choices is the Ecologically Sensitive Approach (ESA). I urge you to adopt this approach that will target areas of the riverbed, riverbank, forest and wetlands and Woods Pond. The ESA will make the river cleaner but will not destroy it in the process.

Please ensure that the residents of Berkshire County have a cleaner river that retains its scenic beauty.

Sincerely,

RECEIVED
DEC 15 2010
By

From: Jim Biancolo
Sent: Sunday, January 23, 2011 9:00 PM
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: "Rest of River" PCB Comments

Dear Ms. Svirsky,

I do not have an informed opinion on whether the Housatonic should be dredged or not, but I feel very strongly that if dredging does occur the PCBs should not be dumped anywhere near other bodies of water. It is inconceivable to me that this would even be considered.

Also, I hope you will investigate the alternative cleanup methods proposed by BioTech Restorations and Genesis Fluid Solutions. Both sound promising, especially BioTech Restorations soil bacteria-based approach (I have no affiliation with either organization).

Thank you,

Jim Biancolo

Richmond, MA 01254

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Friday, January 28, 2011 4:36 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (027163545) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:Berkshire County has already been devastated by the effects of the Housatonic River clean up! Extensive dredging is not a solution. We need much more effort put into finding a safer, low impact solution that will not cause further injury to the ecosystem while still meeting the EPA's goals.

03) Name:Jeanne Bogino
04) Organization:Norman Rockwell Museum
05) (required) State:MA

Windsor, Ma 01270

November. 30, 2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

We attended the very interesting presentation that you made at the IUE Union Hall in Pittsfield a few weeks ago, concerning the PCB cleanup of the Housatonic River. We also have viewed again the DVD video that you sent to us, ***The Housatonic: The Fate of a River.*** Considering that the various wildlife are faring quite well with the current concentrations at 15 ppm in the ground, and even less in the flowing water, we are quite convinced that it is best now to have no further procedures, but to leave it to nature's own cures for 10 years of so, then to do a new evaluation – very much as you suggest. Continued excavation of additional lengths of the river, as some writers to the Eagle are insisting, would be like killing someone to eradicate every last vestige of a past illness.

It is most unfortunate that we were not more careful in past years about what could result from loose disposal of PCB waste. It seems that we all felt intuitively that our natural environment was so vast that it would easily assimilate everything that we could discharge into its midst. We are paying dearly for this great mistake, in various ways.

Now, in Climate Change, we are suffering the effects of other vast environmental abuse. We are unable to suddenly alleviate these effects, but to work toward reducing the ongoing abuse to whatever extent we can. Unfortunately we cannot abruptly discontinue the ongoing activities that further aggravate Climate Change (but for one major exception). We cannot ***stop*** driving our cars to do necessary travels and such, but only minimize as much possible while restructuring our infrastructure to further reduce CO^2 generation.

The one exception among our major activities that we could discontinue, without loss of essential product, is WAR. It produces nothing of value, but only death and destruction. Again and again, down thru the ages, we have striven to overcome our warring tendencies and establish lasting peace. Now, with Global Warming added so precipitously to the equation, perhaps we can find new resolve. Please see my enclosures, pointing out preliminary steps to these ends, which in themselves also constitute useful economic advancement and the betterment of everyday living.

Yours truly,

Allan C. Boschen

Allan C. Boschen,
Engineer & Teacher, Retired.
Retired?

Ardis Nardone

Ardis Nardone, Concerned Citizen.

Enclosures:

A Strategy for Making a Better World
Language and Social Evolution
Enhance Education via Metric Measures
Learning to Read, with Joy
The Cultural Value Of Esperanto

RECEIVED
DEC 03 2010
By

The Berkshire Eagle January 3, 2010

Language and Social Evolution

Allan C. Boschen

Dr. Albert Einstein, in the aftermath of WW II, thinking about his part in opening the way for the invention of the A-bomb, did an extended anti-war lecture series. His most essential basic message was that the root of our greatest problem(s) lay in the fact that the evolution of our social institutions has not kept pace with technological evolution.

The latter had produced ever more complex and sophisticated devices, for every imaginable application for bettering the pleasures of life – and for making war. And here at last is this ultimate weapon with the capacity to wipe us all out, friend and erstwhile enemy alike.

Why had our systems of law not evolved in step? They had produced peacefully organized society at local and national levels, and even international federations and other empires. Why not also for the whole world?

We had produced the League of Nations in our efforts to avert war, but it was not enough. So we moved on to the UN, a further step in sophistication toward the desired goal but still not enough. For in the very midst of its development sprang the Cold War, ever threatening to turn hot and wipe us all out.

♦

Now we have lucked out of the Cold War, avoiding the wanton destruction normally associated with war – but for the monstrous wastes of vast missile systems, and associated military armies and supplies, built up for no good purpose! Unable so far to take that final step in making the UN effective toward its ultimate goal, perhaps we could look at lower levels with Einstein's theme.

Here, communication is the first step, and is fundamental, in everything that we do. You can cite all the wondrous devices, radio, TV, computers, the internet, asking what more can we do. Still, the UN is burdened by translation services that eat up 10% of its operating budget. Worse still, this mode of operation leaves it open to serious misunderstandings, while also slowing down operations when time may be critical. The Language Barrier, hard at work! However marvelous may be the so-called simultaneous translation, it still is a poor second to direct communication in a language which is mutually well understood by all concerned.

Einstein's theme comes in quite strong, here! The solution is quite simple -- a ***universal second language*** (USL), as postulated some 400 years ago by the great philosophers Descartes and Liebnitz.

♦

This idea has been acted upon by many intellectual giants in many countries down thru the years, thus to develop an ideal working model, along with all the necessary material peripherals. That model is Esperanto, with its world-wide community of adherents and the extensive and elegant literature that this community, in turn, has developed.

Pertinent to this, John McWhorter, Professor of Linguistics at Manhattan Institute, was heard to remark on TV that language had changed dramatically, in a continuous state of flux, throughout the centuries of antiquity. Then he wondered why this evolution went into a freeze in recent centuries. After having made this profound statement, it is surprising that, at the end of an extended and interesting commentary about Esperanto, he could dogmatically declare that, Esperanto will not be the universal language, for English is, words to that effect. Would the acceptance of Esperanto, in its intended role, not constitute another logical step in his evolution of language? And in the dire need for evolution of social institutions as postulated by Einstein?

♦

If admitted as a choice among the foreign languages offered in our schools, Esperanto, would provide (besides its direct benefit to international communication) an incisive demonstration of the merits of spelling reform, primarily to simplify every child's mastery of learning to read, but also with many peripheral benefits to society at large, including simplification of the learning of English for other peoples. The political environment now existing in favor of such basic change might even be sufficient that the demonstration of merit which Esperanto alone can produce so effectively, can be sufficient to overwhelm the ingrained inertia that stunted the efforts of President Theodore Roosevelt.

These steps, in increasing efficiency, would redound with new attention to the merits of our conversion to Metric measures, to simplify the learning of math and science and, again, with extensive benefits in the efficiency of everyday life and more.

These three major steps in efficiency each would also be an outreach to the rest of the world, another aspect of the comprehensive change that President Obama is calling for.

Allan Boschen, a retired engineer and teacher, is an occasional Eagle contributor.

The North Adams Transcript October 3, 2010

Enhance Education via Metric Measures

by Allan C. Boschen.

Let us ***consider,*** what metrics can do for the enhancement of education. Education Reform has its primary stress at this time upon testing (MCAS itself an example of [and a tool for] making measurements -- a curious twist in this consideration). We may ask whether adequate attention is directed toward the bases of instruction, *in advance of the testing*.

Noting the attention given to math and science in education since the time of Sputnik, we may ponder the paradox of our continued use of a primitive non-system of measurement[1], whereas making measurements is an essential part of all of applied math and science.

Sir Isaac Newton, Charles Steinmetz, and other scientists have stressed that when you can *measure* something, and *put a number* on it, then you KNOW something about it; but if you *cannot measure* it, then you have only a fuzzy and inaccurate idea about it.

From time to time we observe lively dispute over the relative merits of rote memorization vs. logical thinking. This is memorizing discrete facts and data (most of which are soon forgotten) vs. learning to apply what we know in terms of logical thinking. Here we have an excellent case for comparison in these terms: Our traditional system of measurement is a wide range of loosely interrelated units, with a hodge-podge of conversion factors between larger and smaller units and among the various measures, some of them only coarse approximations. Metric, on the other hand, has only 3 basic units; meter, gram, and liter; for length, weight, and volume respectively, each with the *same prefixes* for larger or smaller units, all representing coefficients in powers of 10. [2] Also, the relationships among these three basic units are exact, in Metric.

A particular anomaly, here, is that American children must not only deal with this confusing conglomeration, but also must learn Metric, and with it an additional set of conversion factors -- for conversion between various metric units and the corresponding English units. Rare is the person who remembers all of these units and conversion factors, however. One tends to memorize those which he / she uses often, resorting to reference books for the others when now and then they are needed. In any event, this is a great amount of extra [and confusing] work, and it is distracting to (from) the learning process.

Studies have revealed critical learning periods ***(imprinting)*** for the young of various species of animals, and we have pondered whether we humans might have such. Though we see no evidence of *imprinting* itself in the early learning processes in children, still we do see strong evidence that success feeds upon success -- that success in the introductory levels of any subject area arouses deeper interest levels for further and deeper pursuit of ever higher levels of the subject materials (as intuitively we would expect). It is suggested here that this deeper interest arousal at the outset may sometimes be the difference between success and failure, providing the basis for the child to find his / her ongoing learning to be easy and fun, rather than boring and difficult.

Then might the introduction of measurements (in school) through a simple and logical system have a 'critical' effect in a child's learning process? Might this effect be carried on throughout the ongoing learning of math and science -- and through all of logical thinking development?

All of the above, of course is in addition to the merits of metric for all aspects of everyday life, most particularly international industry and trade.

Might a depth of such consideration on the merits of Metrics point the way for other applications of logical bases for the improvement of the education process? Consider the most basic component for all of formal education, learning to read. The gross irregularity of spelling is obvious to everybody, but again, in deference to Sir Isaac Newton, et al, let's *put a number onto it:* According to one account, there are 253 ways of spelling our 44 phonemes. Is there cause, then, to give serious consideration toward the resumption of the spelling reform that was begun under Teddy Roosevelt's presidency?

According to another account, a serious, in-depth spelling reform would reduce the space required for print by as much as 12%. One result would be to save many tons of newsprint, every day. Should this not also arouse conservationists to such a cause?

Yet a third logical base for such educational reform is Esperanto, on which I have written extensively, here and elsewhere. I have been an ardent advocate of Metrics and Spelling Reform since long before I ever heard of Esperanto. One critical difference is that the former both require federal legislation and much capital investment, while Esperanto needs none of that. It can be applied directly by any school at zero cost and with immediate dividends, on a broad scope!

1. It is a language that all students can ***actually learn*** (rather than merely be exposed to), because it is ***so much easier*** to learn.
2. It can be used all over the world, and it enables travelers to ***mingle with the locals.***
3. It will provide an ITA (Initial Teaching Alphabet), if taught at preschool. (For introducing kids to reading.)
4. It is the ideal introduction to the foreign language field, paving the way to the study of other languages, for those interested in foreign language studies, but obviating the need for studying other languages, for those ***NOT*** interested.
5. It is an ideal model for the study of grammar.
6. It opens an ideal path for the study of the great works of other cultures, because it is the ideal language for translation, producing truest to the original translations & minimal 'foreign flavor'.
7. Its study is an excellent exercise in logical thinking.

The annual "Aŭtuna Renkontiĝo Esperanta" (Fall Gathering on Esperanto) on Columbus Day weekend (Oct. 9 thru 11, 2010) at the YMCA Lodge at Silver Bay on Lake George, will be an excellent opportunity for anybody who is curious about this, to just drop in and observe Esperanto in action. They may even enroll there in free lessons on this language, ***just to imagine,*** then, how profoundly it can aid Public Education. Or, to enroll in the program, write to:

normandfleury@esperanto.qc.ca

Allan Boschen, an occasional contributor, teaches Esperanto at Massachusetts College of Liberal Arts, and other schools.

---

[1] Inch, ft, yd, rod, mile; tspfl, tblspfl, ounce (2 *different* ounces for wt and vol), cupful, pint, quart, gallon, peck, bushel, pound, hundredweight, ton, square inch [foot, yard, rod, mile, etc] acre, cubic inch [ft, yd, rod, mile, etc] ....

[2] Powers of 1000 are the more usual practice, exception taken for the cm, in the USA, for it's closeness to the inch.

THE CULTURAL VALUE OF ESPERANTO

by William Auld

It is a well known fact that by learning a second language one can gain entree to a second culture. This has always been a fundamental argument to justify language teaching in schools. By learning a foreign language one may have two cultures: one native and one foreign. The extent to which he actually acquires the foreign culture will depend how well he gets to know the language concerned, and how much time he spends among people whose native language it is.

It is sometimes thought that Esperanto lacks this dimension. To some people, the fact that Esperanto lacks a national or geographically localized basis suggests that no basis for an indigenous culture exists. If this were true, then communication by means of Esperanto would inevitably break down at all levels beyond the crudest and simplest expression achieved in pidgin English or in the few words of school-boy French that is all most of us remember from our classroom years. This is not what actually happens, as anyone may confirm for himself by attending an international conference where Esperanto is used. The truth is that by learning Esperanto, one will have access to two cultures, one national and one universal, and he will also ***gain*** access to a very large number of other national cultures. I shall deal with these points separately, beginning with the second, as its significance is perhaps easier to grasp.

The Esperantist has access to a wide range of translated literature drawn not only from the languages of major diffusion, but also from the smaller ethnic cultures. Esperanto has at least four advantages over other languages in this field. Firstly, translations into Esperanto are normally made by native speakers of the original language, while translations into national tongues are normally made from a foreign language into the translator's native tongue. Secondly, Esperanto is enormously flexible in syntax and therefore capable of closely imitating particular features of the original languages without distorting or compromising its own nature, while national languages tend to be syntactically inflexible. Thirdly, among Esperantists translation is *not* a despised art, as it is among many national cultures; thus it attracts major creative talents. Fourthly, being rich in rhyme, Esperanto is an unusually suitable medium for very faithful translation of poetry.

Of course, poor translations have been published in Esperanto, as in any other tongue, but the total of veritable successes is huge. An English Esperantist, for example, can acquire a knowledge of Hungarian, Bulgarian, Estonian, modern Icelandic, Chinese, Polish, Vietnamese, and still other literature that otherwise is not easily obtained. The world is his oyster. Nor is his cultural opportunity purely literary in nature; he can inform himself of other aspects of the most various national cultures straight from the horse's mouth naturally, by free, private correspondence untrammeled by linguistic restrictions. Use of Esperanto is not restricted geographically, as is use of an ethnic tongue.

Hence, even were there no indigenous Esperanto culture, there still would be a strong cultural justification for learning this language; and school teachers, who extol the undoubted cultural advantages obtained thru the study of an ethnic language -- so very difficult and time-consuming -- should ask themselves whether the case is not every bit as persuasive for a wider-based cultural ethos to be enjoyed through Esperanto, so relatively easy to acquire.

This brings us back to the other point, that an Esperantist has access to two cultures, largely separate but by no means mutually exclusive, whose roots are there within his own personality. I have called these national and universal. A national culture, by definition, consists largely of those things which identify the nation as different from other nations, and is associated with the nation's history, geography, political philosophy, and, of course, language. Sometimes this agglomeration of largely random factors which serve to distinguish ethnic groups from one another assumes such importance that it obscures the equally important fact that a very great part of every individual's personality and ambiance consists of factors which are universal to the human race. These include such fundamental characteristics as hunger, love, anger, aspiration, moral sense, fear and sex. Upon these universal qualities the very notion of cultural universality is founded, and they form the basis of a universal culture, of which Esperanto is the natural and appropriate vehicle.

It is at least arguable that the universal characteristics found in the individual are "natural", while the national characteristics are "artificial", because, while the universal appear to be present in every human from birth, wherever and into whatever social group he happens to be born, national characteristics have to be acquired -- through parents, peers, and, mainly, educationalists. A knowledge of national history is not inborn, but acquired. The subtlety and allusion, of which literary language is full, has to be learned through a long and arduous course of study -- and very many individuals never acquire it. One can not deny that national culture exists -- but it exists only because we say it does, and innumerable national cultures have disappeared because people ceased to care about them; a few have even been revived because people started to care about them again.

Similarly, a universal culture is possible only so long as people care about it, despite the fact that the bases for it exist naturally. It has been characteristic of Esperanto-speakers for four generations, now, that they have cared about the cultural bases underlying the very concept of an international language. Countless thousands of people all over the world have not been content to treat Esperanto as no more than a useful tool -- though a useful tool it is -- but have looked upon it as an expression of human brotherhood and the aspiration to live at peace with one's fellows. One may agree or disagree with them; but it is no accident that fanatical nationalists of the Hitler type have seen fit to persecute people only because they were Esperantists. Esperanto today has a history going back beyond the memory of even its oldest living speaker, that it possesses a literature which expresses ideals and hopes of a universal nature, and that it has inspired the kind of loyalty that men give only to the things which seem to them culturally valuable. There is a cultural basis underlying Esperanto, whether or not this fact is pleasing to this or that individual.

There need be no contradiction between a man's national culture and his universal culture. No one would seriously suggest that Esperanto might in any sense "replace" national languages. It was Zamenhof himself who said, "...the true patriotism is a part of the great worldwide love that builds, conserves, and enhances everything. The Esperanto ideal, which preaches love, and patriotism which also preaches love, can never be inimical to one another." To love what is ours does not imply hatred of that which is not ours but someone else's; to love our fellow men in another country, it is not necessary to hate our own.

Esperanto encourages worldwide understanding and friendship. It does not solve all our problems; nor does it make war impossible. But it does solve one pressing problem: the need for people all over the world to be able to communicate and understand one another. To really *'understand'* a person, one must know something of his cultural background; Esperanto makes this more widely possible than does any other language.

A *STRATEGY* FOR MAKING A BETTER WORLD

The greatest need of this world is
a stronger, more effective UN!

For ***RESULTS*** on Global Warming; Environmental Conservation for Wildlife, Food, Water, & Energy; Sanitation; Health; & ***Sanity*** → → PEACE & ***no more war*** → for ALL these major concerns → a stronger, more democratic, more effective United Nations! To get away from the waste & devastation of war, and ***apply*** our resources for ***solutions!*** Let ***taxes*** pay for the works of ***government***, ***NOT*** for war!

The very ***best*** first step in fortifying the UN is to enable it to function in ONE language, instead of SIX. ***Esperanto*** is ideal for this role, as is no other living language.

The ***means*** to these ends are thru applying Esperanto to provide a major enhancement to education! It can make our foreign language goals* realizable and far less costly, while aiding in other ways as well and pointing the way for ***true reform*** in education.

The idea that Americans are ***lazy*** and ***inept*** about learning languages ignores these critical factors:

1. Learning a foreign language is a major task.
2. The means for practice are rare for Americans.
3. Our need for foreign languages is small, compared to others', for we have one primary language, coast to coast; the same one is dominant in int'l affairs.
4. American students must ponder: "Which one?" For most others, their best choice is obvious.

The glaring result of these 4 factors is that the great majority of Americans who study foreign languages do so only to meet school requirements, never becoming competent to use them in any depth. Their gain from these studies, then, resolves to no more than general educational enhancement.

Esperanto, ***4-to-10 times*** less difficult to learn, but still a ***complete*** and ***beautiful living*** language, can serve educational enhancements at far lower cost, and being scientifically designed, can serve them far better as well, as detailed in ***The Value of Esperanto to Education.*** Thus students are more likely to learn it well, retain it far better, be more likely to find ***use***[1] for it, and ***to go on using it.***

This begs the question of why, then, has the utility of Esperanto not been clearly seen long ago, and applied more extensively? There is a bit of ***chauvinism*** here but primarily it is a matter of ***apathy,*** aggravated by ***gross misconceptions*** about this language which seem to prevail in the public mind.

There is a need to influence public policy on this, for awareness of this potential is yet to be acknowledged in the halls of power. Powerful countries are jealous of their status, even if only regional. Nor is opposition limited to ***government*** politicians; many in the administrative structures of foreign language teaching are also wary of ***their*** loss of power and prestige. Foreign language teachers worry too, aware that many students would take the ***easy*** language, leaving others insufficiently subscribed. Here, the prospect is of losing their jobs, ostensibly to a ***'cheap, plastic, substitute',*** as the word ***'artificial'*** tends to suggest. Some seize upon any suggestion of inadequacy or unreality, even imposing snobbish displeasure over the very idea. Some declare that language 'cannot be invented', even though ***all*** human languages are ***at least partially*** the product of deliberate design. Some discourage any suggestion to explore, investigate, or even consider any evidence to the contrary. Politicians are eager to defer to the professionals, their supposed experts, not realizing that conflict of interest forestalls upgrading their expertise. In consequence, the misconceptions about possibilities in language design, and about its foremost product, Esperanto, have come to prevail in the public mind. Meanwhile, many foreign language teaching jobs are lost anyway due to the high costs of trying to meet all of the sought objectives with ethnic languages only.

To correct misconceptions and ***demonstrate*** that traditional values are ***NOT*** lost in Esperanto, a special course was developed. It was designed as an ***Overview,*** whereas people are not inclined to commit toward learning a language in depth just to verify its value. It presumes just sufficient depth to provide, at minimal cost in time and energy, a profound feeling for what Esperanto is like and what it's all about -- thus to ***demonstrate*** the basis for its ***extraordinary*** value to education. Hereupon, perhaps an effective advocacy can be developed, influential toward getting Esperanto into the core programs in the schools[2], or perhaps educators can be persuaded directly.

It is safe to assume that some of those who take ***this*** course will find this language interesting, exciting and enjoyable. So by design it leads into further studies, for those so inclined, via the video course, ***Pasporto al la Tuta Mondo*** -- 16 half-hour lessons, set to a typical TV Sitcom format. PTM is a very interesting & amusing course!

Teachers get PDP's for the larger course.

Allan C. Boschen.

---

* All schools are encouraged to introduce a second language as early as feasible, even at preschool; and foreign language studies are required for graduation from high school.

[1] Besides educational enhancement, the most prominent immediate applications are int'l correspondence (pen pals, ham radio, internet, stamp collecting ...), Access to other cultures (including its own int'l culture) thru journals and books (including excellent translations of the great works of many countries), and most of all in tourism, to add a new dimension to travels abroad -- meeting people of all countries, and meeting them halfway on language.

[2] This course was taught in Elderhostel, at BCC, and 16 of its students signed a statement of advocacy! Previous to this another, a 3-credit course, was taught at BCC and some of its students drew up such a statement, which was signed by all, and was signed also by many other people of this area who had studied Esperanto.

Learning to Read, with Joy

Allan C. Boschen.

In January, Arlington, MA had an interesting program on TV about its problems in education. Its new superintendent, an industrial entrepreneur turned educator, slashed personnel as a first step, against financial difficulties. With his industrial background, we should now expect attention to in-process learning efficiencies – something akin to the Time & Motion Studies that produced such sweeping gains in manufacturing efficiency. This could justify the personnel reductions and could also expedite learning.

Learning to read is prominent here, not only as a major problem itself, but also underlying others. This lends itself well to such analysis, its root being the gross irregularity of spelling -- 253 ways of spelling 44 phonemes. It is so bad that we have lessons and drills on spelling all thru the 12 grades, and even into college.

In the 1950s, the "initial teaching alphabet" (ITA) was devised in response, in England. It was tried in many schools, there and in this country and was quite successful in speeding up the process at the front end. But the time that it had saved was lost back when converting to everyday spelling, so the ITA was abandoned. Now the only data on the ITA that remains is a book stating that it had failed, with data on tests to prove this failure.

♦

The ITA is a great idea, but it ought have been introduced before first grade, and with less complex characters. After learning that the ITA was abandoned, I wrote up another approach, calling it ***"Spelling Reform for Introducing Reading"***. It has only one set of letters, the upper-case caps, but with C, Q, and X dropped out as redundancies, and with new letters for 'TH' and 'SH' -- 'T' and 'S' with the right-hand part of a lower-case 'h' tacked onto each. "Head-Start" people were approached with this, but they were not interested. For lack of time, it was set aside.

Then came the Education Reform of 1993, urging all schools to introduce a second language as early as feasible, even at pre-school. With Esperanto as that second language, at pre-school, the kids would learn to read automatically in the process of beginning to learn this language. Its alphabet, almost identical to the Latin, would serve excellently as an ITA. This supersedes both ***"Spelling Reform for Introducing Reading"*** and the original ITA. For it does not impose an extra process nor anything to 'un-learn', nor conversion to "everyday spelling". In this approach first graders learn to read in English in the traditional manner, but after having mastered the mechanics of reading as a separate process. This can make the difference between early-on success and failure for a great many kids.

Does this not reflect the "Change!" and "Efficiency!", so prominent in Barak Obama's election? -- And, at the very base of everything that we do in life? And of the economy itself?

After mastering the mechanics of reading, via Esperanto, learning to read in English will still require a major effort, for the kids will still have to sort out the 253 ways of spelling those 44 phonemes. Still, the initial start will be faster and will produce better reading skills in the end, yielding dividends in all of their further schooling.

Other educational gains will also result:

1. Many if not all of the kids will go further in Esperanto, perhaps as a club activity, fulfilling the second-language requirement.
2. Their reading skills in Esperanto will remain superior to reading in English, at first. Noting, then, how closely many of the words in Esperanto resemble words in English and how well they serve, in 'clean' spelling, it will be ever more apparent that spelling reform, as initiated by Teddy Roosevelt, should be resumed.
3. Esperanto, being grammar-coded, serves later as an excellent model for teaching about the grammar of English.
4. Correspondence with pen-pals in many countries lends a better sense of reality in social studies.
5. The study of Esperanto is an excellent exercise in logical thinking.
6. Pasporta Servo, a project of TEJO, (Esperanto Worldwide Youth) paves the way for travels abroad.
7. Teaching Esperanto in school will pave the way toward having a universal second language (USL) in practice, to simplify international communication. This will fortify and simplify diplomacy, commerce, travel and the operations of the UN, if not indeed ***enabling*** the continuance of these functions ***in a healthy society.*** It will also eliminate much of the waste of time, energy, and material substance entailed in the current multilingual operations.

♦

A preliminary step for all of this is to address some gross misconceptions that seem to prevail in the public mind. Here, at this juncture, let it be said simply that:

1. Esperanto is NOT a ***'cheap, plastic, substitute'***, as the word ***'artificial'*** tends to suggest, but is a real living language, quite appropriate to all lingual applications.
2. Its worldwide body of adherents use it on a regular basis and thereby have developed an elegant living culture.
3. Though artificially designed, Esperanto is as natural as any ethnic language, even more-so when considering how soon after beginning its study one can ***feel natural*** in using it.

♦

Governor of Indiana Mitch Daniels' State of the State address, in January 2010, was quite interesting in portraying a healthy economy in that state. It took a negative turn, however, as he went to problems in education and his promise of additional measures to elicit closer attention and greater effort, both by students and by teachers, as well as the community. Again, learning to read was cited prominently.

Chris Christie, in his inauguration as governor of New Jersey, in another TV program, made a similar promise of new attention to education problems. Among them, learning to read again was prominent.

Problems in education are largely the same across the country. The same primary response poses a two-fold competitive challenge to the students and the schools -- stringent standardized testing on the one hand, and charter schools on the other. Both of these, figuratively, are the lash of the whip.

The opposite would be to seek to capitalize upon the joy of learning, something we all are endowed with, from birth. A process that yields early and on-going feelings of success knows this joy and compounds it. Logical inconsistencies which bear no sense of necessity, beyond society's emotional ties to tradition, blunt that natural joy of learning. The extensive extra work entailed would seem fruitless and unnecessary, inducing a sense of frustration and boredom, instead of the joy. Overall, they impede and complicate the learning process.

♦

Can the ties to cultural tradition be so sacred as to sacrifice the natural joy of living for whole strata of the student population? And to impose a general lag in educational performance? Or can our sensitivities not be induced to 'get used to' such changes, for the larger and more enduring health of society?

Did we suffer a loss with the adoption of Arabic numerals in place of the Roman? Phonetic writing in place of hieroglyphics? * Is the outside world culturally handicapped by its standardized and mathematically efficient Metric System for Measurements? (Is this not ***another*** CHANGE that we in the USA should make, in this same spirit?)

♦

As Dr. Einstein proclaimed in his lecture series during the early stages of the Cold War: "The root of our greatest problems is the failure of our social institutions to evolve in step with our rapidly advancing technologies."

* Well, ***maybe*** "Yes!" on this one, but certainly "No!", if we could get back to its basic principle!

Allan Boschen, an occasional contributor, is a retired engineer and teacher, and now teaches Esperanto at MCLA.

For more on this language,

contact:

Esperanto -USA
PO Box 1129
El Cerrito, California 94530

1-800-ESPERANTO (377-3726)

www,esperanto-usa.org

or:

Universala Esperanto-Asocio
Nieuwe Binnenweg 176
3015 BJ Rotterdam, Nederlando

Telefono: +31 10 436 1751510 / 653-0998

or:

The Esperanto Society of New England
http://www.esne.net/

or:

Allan C. Boschen,
585 Shaw Road,
Windsor, MA 01270
413-684-0735

acboschen@gmail.com

Berkshire County League of Sportsmen

ATTENTION SPORTSMEN AND OUTDOOR ENTHUSIASTS: TAKE ACTION NOW BEFORE IT'S TOO LATE!

You can help save the Housatonic in three easy steps!

STEP 1: Watch the enclosed movie, The Housatonic: The Fate of a River.
STEP 2: Sign up for the email list at www.housatonicoptions.com to receive updates on the River clean up.
STEP 3: Tell EPA not to destroy the River.

Send your comments on the next steps for the Housatonic River no later than January 17, 2011:

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

By e-mail to: svirsky.susan@epa.gov and cc: Linda.Palmieri@WestonSolutions.com

I have included some suggested talking points for your letter, but please take a moment to put these in your own words.

- I am a resident of Lee and I have enjoyed (fishing/hunting/kayaking/canoeing) along the Housatonic River.
- I'm writing today to ask that you consider a sensible solution for the "Rest of the River."
- The Ecologically Sensitive Approach (ESA) is a less damaging approach that will provide for a cleaner river while maintaining the nature and character of the river necessary to support the diverse wildlife.
- Don't destroy the river to fix it.
- Don't put the landfill in Berkshire County.
- Sincerely, Your name, your mailing address

David C. Bowers

Lee, MA 01238

Take ten minutes today to ensure that we can enjoy the river for years to come!

RECEIVED
DEC 29 2010
By

From: "Paul F. Bowlby"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Wednesday, January 26, 2011 11:51AM
Subject: Dredging of Housatonic

Dear Susan, any less evasive solution to dredging the Housatonic River is the best solution to cleaning the river. I would assume it will be better for all the species of animal that live in or around the river. Just one persons opinion.

Thanks for your time

Paul

Paul F. Bowlby, VP

Pittsfield, MA 01202-1700

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c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

By e-mail to: svirsky.susan@epa.gov and cc: Linda.Palmieri@WestonSolutions.com

I have included some suggested talking points for your letter, but please take a moment to put these in your own words.

- I am a resident of Lee to Otis and I have enjoyed (fishing/hunting/kayaking/canoeing) along the Housatonic River.
- I'm writing today to ask that you consider a sensible solution for the "Rest of the River."
- The Ecologically Sensitive Approach (ESA) is a less damaging approach that will provide for a cleaner river while maintaining the nature and character of the river necessary to support the diverse wildlife.
- Don't destroy the river to fix it.
- Don't put the landfill in Berkshire County.
- Sincerely, Your name, your mailing address

Andy Boyne Lee Otis

OVER →

Take ten minutes today to ensure that we can enjoy the river for years to come!

RECEIVED
JAN 11 2011
By

To whom it my Concern,

My name is Andy Boyne, Im a Lee Native Im 35 years old and have been Playing Catch + realease fishing in the river for 20 years. I can't stress enough to Leave the river alone Let nature take its course.

Sincerly Andrew J Boyne

PS

This Picture is a northern pike in the Back waters of woods pond note the tension Lines leading to East over resort.

* The plan proposed would dry up these waters causing no cover for these fish to Live!

Leave the river alone!

Leave the river alone!

Andy Boyne

RECEIVED
JAN 11 2011

Housatonic River
Rich Bradway
to:
Susan Svirsky
01/16/2011 10:39 AM
Show Details

Hello,

I just wanted to offer my two-cents as part of the informal public comment period. I live in Stockbridge, MA. My house is on the Housatonic River. I have lived here on-and-off for the last 42 years. My parents preceded me in living here since the early 50's. I moved to Boston in the early 90's only to move back to the Berkshires in 2004 because I dearly missed my family, the community and the preserved beauty of Berkshire County's natural resources.

My youth was molded out of days hanging out in my backyard, or my friend and neighbor's backyard enjoying the outdoors, of which the Housatonic served as an anchor to our activities. It is one of the few things I truly take time to enjoy when not having to deal with real-life worries of work, taxes, etc. I have come to love taking walks on the path that is on the other side of the river from my house. It is a desired time for solace and reflection.

I know there has been discussion about what to do with the Housatonic now that GE has done its preliminary and mandated work in Pittsfield...to right the many years of wrong it did to this beautiful body of water. Frankly I am unaware if continued work would even reach my house in Stockbridge. All I do know is that GE needs to continue to right its wrongs. What they did was atrocious and needs to be rectified as best it can. That said, I feel there needs to be an effort to rectify the problem without destroying the natural beauty of the Housatonic that took hundreds, perhaps thousands of years to produce. What I have seen of the corrective measures up off of Pomeroy Avenues, makes me think of an aqueduct rather then a river. If I wanted to see aqueducts, I would move to Los Angeles or some other metropolitan area.

There is no easy solution to the problem, but I think it is paramount that we do not take the easy way out because that is the only option we think we have. My concern is that GE or whomever is advocating for them, cannot be the sole entity putting solutions on the table. Perhaps they are not, but from a PR point of view, that is all that I have seen being provided in the local news outlets.

Anyway, thank you for the opportunity for me to provide my two cents.

Regards,
Rich Bradway
Stockbridge, MA

Houstatonic River Clean up

Austin Brazee to Jim Murphy 01/21/2011 03:58 PM

Cc: "rep.smittypignatelli@hou.state.ma.us", "Rep.ChrisopherSperanzo@Hou.state.ma.us", "bdowning@bendowning.org"

History: This message has been forwarded.

Hi Jim,

Please use careful discretion in choosing a course of action in the next phase of the GE cleanup of our river.

Phase 1 turned the river into an ugly canal destroying the natural habitat and scenery along the river. Probably over time this is the best long term solution? Only time will tell. Some feel that it was a tactic of GE to make this such a distasteful solution they could worm out of a costly cleanup downstream in Phase 2 ? I hope not!

What we need is a long term (generational for my grandchildren and great grandchildren) solution to clean up the Housatonic to the point that it is safe to fish and swim in. The only way for that to happen is to get the PCBs out of Wood's Pond. Dredging the Pond may be ugly for a while but long term it will be great. As for dredging the rest of the river form Pittsfield to Lenox I have no idea what should be done. I will go along with the EPA experts and hope they are not duped by GE hired guns and attorneys.

Do your best!

Thanks,

Austin E. Brazee, CPA

Pittsfield, MA 01201-6388

Pursuant to the rules of conduct as set forth in Circular 230 of the U.S. Treasury Department, nothing in this communication was intended or written for the purpose of avoiding penalties that may be imposed on the taxpayer by the Internal Revenue Service, and it cannot be used by any taxpayer for that purpose. No one, without our express prior written permission, may use or refer to any tax advice in this communication in promoting, marketing or recommending any transaction or investment to any other party.

From: Brittany Brouker
Sent: Tuesday, December 14, 2010 3:00 PM
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: Public Comment Period
Attachments: BROUKER PCB.pdf

Greetings! So sorry about the markup on my last e-mail. I adjusted it to a PDF. should work fine. Thank you,
Brittany Brouker

In an ever-changing time, few things can be trusted. One thing we know is real is love, because we can feel it; the other we know is real, because we see it, is the Earth. Thus, the most pure notion we can rely on is our love for Earth.

"Be candid with everyone."

"Change before you have to."

"Face reality as it is, not as it was or how you wish it to be."

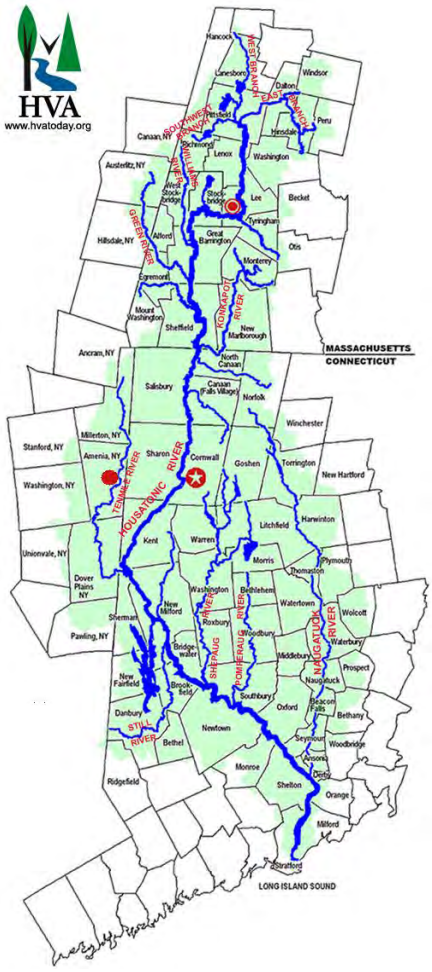
"I've learned that mistakes can often be as good a teacher as success." (Welch)

The quotes listed above, are credited to Jack Welch, former Chairman and Chief Executive Officer of General Electric. Welch is known as the man who began his career on the factory floor in Pittsfield, Massachusetts and worked his way up the corporate ladder to become one of the most powerful businessmen in America. He is also the same man who turned a blind eye, *even gave his blessing*, to the practice of dumping barrels upon barrels of toxic chemicals in our rivers and backyards, here in Berkshire County.

There was a time that General Electric was the premier industry in Berkshire County. GE Plastics, in particular, manufactured transformers that used material laden with polychlorinated biphenyls, or PCBs. The PCBs served as a cooling agent and insulator, the byproducts of which ended up in the natural habitat of Berkshire County. (Blalock) Nevertheless, General Electric's

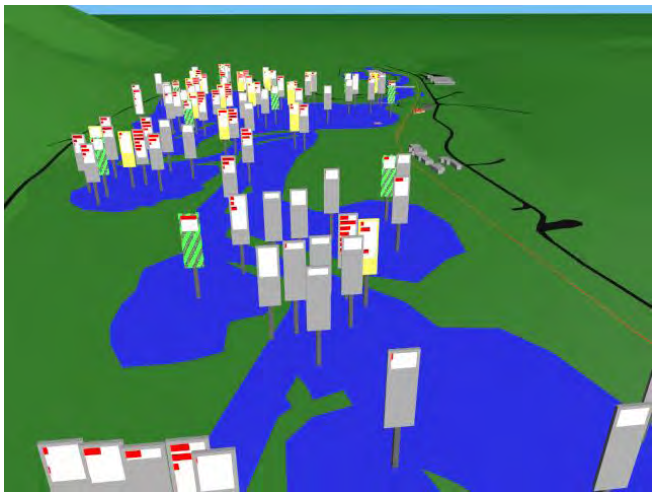
performance reigned supreme until a couple decades ago, when the company abandoned the area, leaving the City of Pittsfield and its surrounding communities jobless and depresse. Though much progress has been made as a result of grassroots efforts to insist that General Electric take responsibility for their actions and clean up the mess they made; it remains true that not enough has been done to clean harmful toxins out of the Housatonic River and other surrounding habitats.

Growing up in The Berkshires, I grew up with the river. I have kayaked, canoed and fished along the Housatonic. I used to sit with my Dad outside the Mead Paper mill in Lee, during his dinner break in the summertime, and watch the river rush by. The Housatonic River is a constant in the landscape for people from Washington, Massachusetts to the Long Island Sound. It is 150 miles long, with hundreds of branches, streams and tributaries. To lose control over the welfare of our cherished river would be an environmental tragedy with many health risks.



General Electric dumped hazardous materials for the better part of the 20th century. Most of the action and awareness regarding the River has only just begun in the past 20 years. Citizens in communities affected by the pollution have really taken a stand, as their health and property is in danger. Levels of contamination vary along the river but a test conducted by Lee Minardi of the engineering department at Tufts University shows the density of PCBs at Many test

points are at levels of 100 PCB parts per million (ppm) in the riverbed.



Polychlorinated Biphenyls were manufactured for 50 years between the 1920s and 1970s. In 1979 the Environmental Protection Agency finally banned their distribution, use and production (EPA Ban). In plastic making in particular, they were very useful and hardy chemicals, and were used widely in many manufacturing plants. (EPA Bans PCB Manufacture: Phases Out Uses) According to the Environmental Protection Agency's website, "Today PCBs can still be released into the environment from poorly maintained hazardous waste sites that contain PCBs; illegal or improper dumping of PCB wastes; leaks or releases from electrical transformers containing PCBs; and disposal of PCB-containing consumer products into municipal or other landfills not designed to handle hazardous waste. PCBs may also be released into the environment by the burning of some wastes in municipal and industrial incinerators."

According to the Housatonic Valley Association, "PCBs are very stable, or persistent, when released to the environment, and therefore, are slow to degrade." (Fate and Transport of PCBs) Being that some locations along the Housatonic River are contaminated up to 100 parts per million, one can understand the severity of this issue. Regardless of efforts made in any singular location along the river, PCBs are seemingly impossible to totally eliminate and are very difficult to break down once they have entered the environment. However, efforts can be made to reduce the levels of PCBs and lessen the risk they pose to the environment.

The EPA adds: "PCBs can be carried long distances and have been found in snow and sea water in areas far away from where they were released into the environment. As a consequence, PCBs are found all over the world. In general, the lighter the form of PCB, the further it can be transported from the source of contamination." (Basic Information – PCBs) It's important to know that PCBs can affect the health of humans through water, soil, and air contamination, meaning that it is not enough to avoid direct contact with the substance, as by even breathing the air around us in Berkshire County, we are putting ourselves at risk.

Dr. David Carpenter, professor of environmental studies and public health at the State University of New York has found in studies that children who consumed PCB-infested fish have lower IQ levels . Also surprising was Dr. Carpenter's findings regarding other health risks: "We found that living next to the Hudson River … suggests the chance of having a heart attack is 39 fold greater than if you live in a zip code that doesn't have a hazardous waste site. This is the highest risk ratio we have ever found for any disease. It's highly statistically significant … (and) it does say that living next to a contaminated river increases your risk of a heart attack." (Friedman)

PCBs have also been tied to cancer, though not enough affected people in Berkshire County have come together to provide the blood tests and statistics to prove this. It would be easier for General Electric if everyone was convinced that the high rates of cancer deaths in Berkshire County are attributed to causes other than the chemicals that their workers were exposed to during lifetimes of working in one of their factories. I, for one, do not believe that any combination of causes other than the cocktail of PCBs that they inhaled and drank and brought home with them on their clothing caused many of these deaths, and I know that I am not alone.

My Mother's parents, Neil and Ann Flint, worked at General Electric for their entire professional lives. Both died of cancer. When my Grandfather Flint would leave, my Grandfather Brouker was his night shift relief, he too died of cancer. My Mother remembers when her father would come home from work and hang his coat in the closet. The next day on her way to school as a little girl the smell that stuck to her own jacket was "choking". She recalls that her Mother used to come home with bleeding earlobes. Both used to work up to their waist in the toxins.

Ed Bates, former test manager of General Electric and friend of my Grandfather's had this to say about *Pyranol* (General Electric's brand name PCBs);

> *People don't realize that Pyranol is twice as heavy as water. If you put a gallon of Pyranol in water it sinks right to the bottom. Within the twelve and a half pounds that Pyranol weighs, seven pounds of every gallon is PCBs. We used to use an average of 20,000 gallons of Pyranol a week and this is if you do simple mathematics, this is one hundred and forty thousand pounds of ... PCBs a week that we were handling. And we had a loss rate: spillage, overfilling, of about three percent. So this says that every week we would lose between four and five thousand pounds of PCBs that would go down into the drain and into the river. ...About a million and a half pounds of PCBs have been plowed into that river. I imagine a good 30% is left.*

It is important to understand how widespread PCBs have become, it's beyond the riverbanks of the Housatonic River, it is under the feet of our children, and in the backyards of

our homes. People in the community, particularly members of the Housatonic River Initiative, are trying to hold GE accountable for their actions. The better informed the community is about the risks of the river contamination, the more apt we are to demand change. We must ask for support from our elected officials. We must ask the people in power which they value more; the cost of a life, or the cost of a river cleanup? Thus far, it is evident that the cost of the cleanup has taken precedence. The cost is miniscule when you consider the worth of a conglomerate company such as General Electric. "From the 1940s through the 1970s, GE gave away thousands of tons of fill from its facility to Pittsfield-area homeowners and contractors. GE's PCBs have turned up in the backyards of former workers, in city parks and playgrounds, and even in city schoolyards." (Berkshire Environmental Action Team) Citizens cannot sell their homes because their properties are contaminated. Land is deemed worthless because of its health risks. An entire county has been affected, and something needs to be done.

On October 17th 2000, the United States Supreme Court approved a consent decree was agreed upon and set into action. This decree required that General Electric be held responsible for some measure of cleanup in the Housatonic River. $450 million and two years later, the cleanup began. *Two* miles of the 150 were dredged, the soil of the riverbed was dug up and a "river rug" was put in to prevent more deadly PCBs from contaminating water. The soil was dumped throughout the Berkshires, Hill 78 was one of these locations. Hill 78 lies just past a chain link fence, next to Allendale Elementary School. The children that attend school there are at risk to PCB exposure. Tests have been taken, and debris on the windowsills have shown levels of PCBs. The school remains open because GE bought

the teachers out with new textbooks and a playground. GE still has not moved Hill 78, or any of the contaminated soil. This was the first phase of the cleanup, still much of the river and surrounding areas remain contaminated at levels that are a danger to the environment and those who live nearby.

In October 2010 GE released a revised plan for phase II. Within the proposal are plans to dump soiled land from aforementioned locales to somewhere around Housatonic, Lenox and Lee, MA. To demonstrate how horrible of an idea this is, let us consider Lee. GE Proposed dumping along Forest St. The location is a mere 2,000 feet from an uncontaminated water source: Goose Pond. We cannot let this idea pass. We cannot allow them to spread the contamination even further throughout Berkshire County.

On December 1st, 2010 a meeting was held in Great Barrington to discuss the proposed plans for phase II. Many people were surprised to learn that they were planning on redistributing it all over the Berkshires. There is a similar crisis on the Hudson River concerning GE and PCBs, the contaminated soils taken from that river cleanup was taken to a toxic waste facility. This is a possible solution for our problem as well (Jones A4).

I remember in high school, Tim Gray of the Housatonic River Initiative came to speak to us about the Housatonic River. He told us about alternative methods. He knew of a place in the Czech Republic that had also dealt with PCB contamination. They had discovered a worm enzyme that is capable of cleaning the PCBs from the soil without presenting further risks to the environment. GE was not interested. Gray said at the meeting on October 19th in Lenox, "We need to stop the dumps, get the best clean up and find better ways. We should be exploring other issues and find the best companies in the world with these technologies and bring them in." (Dupont) Simply relocating the contaminated soil to clean areas around the Berkshires is not a solution.

Some folks in the community believe that nothing should be done. I've seen editorials in the *Berkshire Eagle* that claim it's best to leave things be. They believe it's best not to disrupt the soil more. On November 17th, Sharon Delorme of Lee wrote; "We're smarter now and know we must save the earth. Perhaps the safest solution is to let sleeping PCBs lie and allow Mother Nature to heal herself as she does from other natural disasters…" (Delorme). Mother Nature is capable of healing herself after a natural disaster. This is *not* a natural disaster, it's man made sabotage. GE needs to be held responsible for cleanup until it is a safe river, for plants, animals, and humans.

I support dredging the river. I don't see a feasible solution that does not involve removing the toxic soil. David Gibbs, President of the Housatonic River Initiative, said it best; "My family has been here since the early 1940's. My Mother died of breast cancer, my little sister had a double mastectomy. They both worked at GE. We've got to take care of our kids and grandkids. Don't leave the job half done." (Dupont) *Don't leave the job half done.* Recall the words I quoted from Jack Welch earlier… "Mistakes can often be as good a teacher as success:. I say we learn from our mistakes. Rather then pretend the job is done, and let Mother Nature do the rest, we put our fist down on conglomerate businesses like GE destroy small-town America, and we try alternative methods of clean up.

The EPA has announced a 30-day extension to the public comment period. If you have anything to add, an opinion, an anecdote, even a scientific study – please contribute. The EPA's website is allowing electronic submissions until the 15th of December. Comments can be sent by e-mail to Susan Svirsky (svirsky.susan@epa.gov). (Current Publin Comment Periods)

I hope to encourage you, as a member of Berkshire County, an American, and a human to participate in any efforts to stop Electric from dumping the hazardous waste around Berkshire County. There are alternatives. There are alternative locations for dumping, and alternative technologies to dredging. I ask you so that the children of Berkshire county, even the students of Allendale Elementary don't grow up without

their grandparents, like I did. We must work together to redeem the beauty of The Berkshires, *beneath the surface*, and provide a safe place to live – not only for ourselves but for Mother Nature.

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Saturday, January 29, 2011 1:35 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (028133437) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:I support a low-impact solution for Phase II of the Housatonic River cleanup. I do NOT support extensive dredging and potential disturbing of PCBs. I am a registered voter and resident of Pittsfield, Mass.

03) Name:Cynthia Brown

05) (required) State:MA

Phase II of the Housatonic River clean up

Regina Burgio to: Jim Murphy 01/21/2011 03:42 PM

History: This message has been forwarded.

I am strongly in favor of finding a low impact solution for the cleanup of the river. Extensive dredging would devastate the River and negatively impact tourism, the Berkshire County economy and our quality of life for years, if not forever. We cannot allow this to happen. Please consider a low-impact solution!

thank you,
Regina Burgio
Pittsfield, MA
****

Regina Burgio
Graphic Design for Print and Web
tel

Ms. Susan Sivsky

As a resident of Berkshire County & a concerned citizen this letter to you concerns the Housatonic River cleanup. My feeling on this matter concerns the three options G.E. proposed. the EPA aproach is the most logical in my opinion My second concern is the landfill. the G.E. is responsible for this mess let them put the fill on there own property not ours

Sincerely

Edward P Buskey Jr.

LANESBORO MA 01237

RECEIVED
JAN 05 2011
By

M.E. CALLAHAN JR.
PO BOX 526
PITTSFIELD, MA 01202

January 15, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01210

Dear Ms. Svirsky,

As a long time resident of the Berkshires, and a small business owner of a family business that has operated in Pittsfield for five generations, I am very concerned about the proposed next phase of the Housatonic River project.

It is extremely difficult to sort out the facts and the fiction on this huge project. The most important approach for me is to encourage all parties to tone down the rhetoric and to focus on a common sense approach that will not devastate this beautiful region of our country and cause economic issues for this county. As you know, most of our economy is based on small businesses and many of these companies rely on tourism as their main staple to survive.

Some of the proposals that I am familiar with will take years to be completed and destroy the natural habitat along both sides of the river. It is most unfortunate that some of these decisions are made by people who don't live here. I remain confident that the key people involved in this decision process will recognize the importance of their decision on many of the 135,000 plus citizens who live, work, and recreate here in this county, as well as the hundreds of thousands of visitors who chose to spend time in the Berkshires each year. So, please, listen to Berkshire voices and set a plan that will address a reasonable clean up of the Housatonic while maintaining balance to our quality of life.

I urge you to find a reasonable approach to implement the best plan going forward. Please don't destroy the river, or our economy. Thank you for the opportunity to comment.

Sincerely,

Mick Callahan

ME Callahan Jr.

RECEIVED
JAN 18 2011
By

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Monday, January 24, 2011 11:13 AM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (023111308) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:Don't dredge the Housatonic! I am a Pittsfield resident, and we are just seeing an upswing in the economy - phase II is not only bad for the river and the surrounding environs, but it will negatively impact an economy that has already been devastated by GE. There are alternative low-impact solutions that save the river while protecting human health.

03) Name:Sarah Callaway

05) (required) State:MA

Dear Susan,

As a lifetime fisherman, I have to explain to you that what has happened to the best fishing hole in Berkshire County is almost totally gone. My 2 sons both enjoy fishing and our favorite fishing area was the Housatonic. Since the 2 mile stretch through Pittsfield has been cleaned, the fishing has been destroyed. The river has had just about every species of fish in it, and we used to catch them all! Pike, tiger-muskies, perch bass both large and smallmouth, Calicos, river chubs and trout, very big trout. However, after the clean up through Pittsfield, the fishing is almost non-existant.

Now with talk of doing the rest of the river down to Woods Pond will all but be a death knell to the County. We realize that PCB's is a poison, but you know all the while it has been in the river, the animals and fish in and around the river are (or were) doing just fine. Now, not only do we not catch any fish, we don't see the deer, turkies, bear, coyotes or most of the birds.

I know something is going to be done to clean the PCB's, but PLEASE, lets make it as non-invasive as possible. I'm 73 and probably don't have too many more years to enjoy the river. I'd like to be a part of the River Scene for a few more years.

Respectfully,
Robert M. Cancilla

Berkshire County League of Sportsmen

ATTENTION SPORTSMEN AND OUTDOOR ENTHUSIASTS: TAKE ACTION NOW BEFORE IT'S TOO LATE!

You can help save the Housatonic in three easy steps!

STEP 1: Watch the enclosed movie, The Housatonic: The Fate of a River.
STEP 2: Sign up for the email list at www.housatonicoptions.com to receive updates on the River clean up.
STEP 3: Tell EPA not to destroy the River.

Send your comments on the next steps for the Housatonic River no later than January 17, 2011:

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

By e-mail to: svirsky.susan@epa.gov and cc: Linda.Palmieri@WestonSolutions.com

I have included some suggested talking points for your letter, but please take a moment to put these in your own words. Option number 3. The Ecologically Sensitive approach or E.S.A.
Dont distroy the River. no land Storage of P.C.B.'S.

- I am a resident of Pittsfield and I have enjoyed (fishing/hunting/kayaking/canoeing) along the Housatonic River.
- I'm writing today to ask that you consider a sensible solution for the "Rest of the River."
- The Ecologically Sensitive Approach (ESA) is a less damaging approach that will provide for a cleaner river while maintaining the nature and character of the river necessary to support the diverse wildlife.
- Don't destroy the river to fix it.
- Don't put the landfill in Berkshire County.
- Sincerely, Your name, your mailing address Ronald E. Carr
  Pittsfield, Mass. 01201

Take ten minutes today to ensure that we can enjoy the river for years to come!

RECEIVED
DEC 23 2010
By

From:	dgcarrieret
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	[BULK] RE: General Electric must take proper responsibility for contaminating the Berkshires
Date:	Sunday, December 12, 2010 11:06:00 AM
Importance:	Low

Dear Susan Svirsky

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Finally, let me add, I do not want GE's past polluting the future of FOREST Street in LEE.
PLEASE STOP THE MADNESS.

Thank you.
David Carriere
Tyringham, MA

December 9, 2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
C/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

At the end of October, I took a ride on the Berkshire Scenic Railroad train from Lenoxdale (Woods Pond) to Stockbridge. The tracks parallel and cross the Housatonic River in several locations. This was at the end of fall foliage season in the Berkshires, but there were still some beautiful areas as viewed from the train. There were also many areas where wildlife could take refuge in the undergrowth near the river. The Housatonic Railroad has proposed future passenger train service from Pittsfield and into Connecticut on the same tracks that I rode on. The railroad tracks North of Woods Pond also parallel the Housatonic River in many locations.

In October, General Electric submitted the Revised Corrective Measures Study for the rest of the Housatonic River to EPA for review.

I fear that many of the proposed "remedies" will not benefit the people of Southern Berkshire County or the River itself. We must protect the River and what it means to those who live here and to those who come to enjoy what the Housatonic River and the abutting communities have to offer. I think that it would be best to leave the River alone to recover naturally. However, if something must be done, then let it be a reasonable middle ground. The study that GE submitted includes the Ecologically Sensitive Approach. The ESA is a less damaging and targeted approach to cleanup and is an appropriate alternative to maintain the beauty of the River in Berkshire County.

Please make sure that the answer for the River is reasonable and beneficial to the people, animals and plants that already thrive along its banks. The natural beauty of the River must be maintained for visitors to the area and not made to look like a sterile waterway as can be seen up and down the River from the Elm St. bridge.

Sincerely,

William Carter, Jr.

William Carter, Jr.

RECEIVED
DEC 13 2010
By

From: gjc
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Thursday, December 09, 2010 09:54PM
Subject: Housatonic River Clean up

History: This message has been forwarded.

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:
I am sending you this template letter because it says all that I feel is important about the Housatonic River clean up.
I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.
I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.
I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.
But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.
And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.
Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.
Thank you.
Christine Casarsa

Housatonic River

Suzanne Cassell to: Jim Murphy 01/28/2011 05:31 PM

I support a low impact solution that does not include extensive dredging of the Housatonic River. I hope you do too. Please help save the integrity of our river!

Thank you,

Suzanne Cassell

Anne Cathcart

Glendale, MA 01245

January 29, 2011

Mr. Jim Murphy
Community Involvement Coordinator
EPA New England, Region 1
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Re: Phase II of the Housatonic River Clean-Up Effort

Dear Mr. Murphy:

I am writing in regards to the Environmental Protection Agency's pending recommendation for Phase II of the Housatonic River clean-up effort from Pomeroy Avenue south to Woods Pond in Lenoxdale.

As a resident of the area directly affected by the proposed clean-up effort, I am deeply concerned that Phase II will have a negative, irreversible outcome on our environment and community. Extensive dredging in Phase II would negatively impact tourism in Berkshire County for years to come, not to mention jeopardize the landscape and its wildlife. Furthermore, as we have seen with Phase I, physically removing portions of the river can unleash many of the toxins (PCBs) in the Phase II section of the river downstream.

<u>I encourage you to consider a low-impact solution that still meets EPA's human health standards and will not damage the environment further in the process.</u>

Berkshire County is a unique area with a beautiful landscape, many cultural institutions, and a robust tourism economy. Illustrator Norman Rockwell, writer Edith Wharton, sculptor Daniel Chester French, and many other American icons chose to live in this area because of its geographic location and beautiful environment. I hope that the EPA will make an informed decision for a low-impact solution and choose to protect this historically and culturally significant area.

Sincerely,

Anne Cathcart

Anne Cathcart

From:	Lisa N Cavender
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	General Electric¹s 2010 Corrective Measures Study Letter
Date:	Tuesday, December 21, 2010 3:30:20 PM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. My land in Tyringham, MA touches GE's proposed Lee, MA dump site. Besides the fact that this area is residential, it is beautifully forested and teaming with wildlife that will be greatly affected by GE's PCB-contamination. I also have two young children that I do not want exposed to the PCB-contamination. My land, along with all of my neighbor's land, will be devalued and it will be highly unlikely that we will ever be able to sell our property if the Lee GE dump site is chosen.

Thank you,

Lisa Cavender

EPA River Project
Nancy Cavender to: Susan Svirsky 01/11/2011 05:44 PM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies - technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Nancy Cavender

Lee, MA

From: lceanga
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Saturday, December 18, 2010 07:04AM
Subject: Fwd: Housatonic River - Important

History: This message has been forwarded.

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

Thanks for listening and helping us clean up the Housatonic. It needs your help NOW>

I urge you to reject GEs claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.
But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.
And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Leslie R. Ceanga

Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

January 19, 2011

Dear Susan

Please consider these my comments on the latest GE proposals for cleanup of the Rest of the River.

Based upon the various proposals which have been presented by GE, it is my opinion that the best corrective action is the one which takes no action at all. That is because in all of the other proposals there is a necessity to establish PCB landfills in Lee, Lenox and Great Barrington, which is absurd and totally unacceptable.

It makes little sense to me to dredge up the river bottom or dig up hundreds of acres of adjacent flood plains, vernal pools, etc. where PCBs have been buried for decades and re-suspend them in the water column or re-expose them to the air. At the same time destroy the habitat of many aquatic and terrestrial species, many of which are rare and endangered. Then, take these PCBs and place them into a nearby landfill.

I could support GE's "Environmentally Sensitive Approach", that being the dredging of only the most seriously polluted areas, especially Woods Pond, only if the PCB's are transported out of the area, preferably by train and not carted through the nearby communities. Railroad tracks run adjacent to most of the areas that have the greatest concentrations of PCBs and they should be utilized. I would favor the vacuum type of dredging, not the shovel and wheel barrel technology which is currently being proposed. I truly believe that PCBs will continue to enter the river in Pittsfield, especially via Unkamet Brook and question any downstream clean-up until that is satisfactorily resolved.

As a local sportsman and environmentalist for many years, I have always advocated for the PCB removal; however, not at the expense of destroying the surrounding habitat and the river itself. As you know, here in the Berkshires there is a popular saying, "Don't destroy the river while trying to save it". I certainly subscribe to that philosophy. There has got to be a better way.

I live within ½ mile of the river as the crow flies and have fished it for over 60 years. I have never seen the fishing as good as it is now and challenge those who say it isn't. True, I couldn't eat the fish 60 years ago, can't eat them now, and I seriously doubt that anyone will be able to eat the fish 100 years from today. So why go through all of this environmental destruction and neighborhood disruption?

RECEIVED
JAN 21 2011
By

Although I am a member of several Berkshire County sportmens' clubs, Trout Unlimited and the Berkshire County League of Sportsmen, I am not writing on their behalf. I can state; however, that my views are shared by most of them.

Thank you for the opportunity to weigh in on this important matter.

Respectfully,

Gene Chague

Gene Chague

Lenox, MA 01240

Housatonic River Phase 2 Concerns

Jim Chan to Jim Murphy 01/31/2011 10:55 AM

Dear Mr. Murphy:

I am objecting to the proposed plan on Phase II of the Housatonic River clean up affecting Pomeroy Avenue south to Woods Pond in Lenoxdale.
As you know, this area of the river flows through mainly wildlife and residential areas. Extensive dredging would devastate the River and negatively impact tourism, the Berkshire County economy and the quality of life for years, if not forever. Furthermore, as we have seen with Phase I, physically removing portions of the river will unleash many of the toxins (PCBs) in the Phase II section of the river downstream, and threaten the wildlife that lives there.

I would like to advocate a low-impact solution that still meets EPA's human health standards but which will not damage the environment further in the process.

Best regards,

Jim Chan
Cell:
Skype:

From:	Charlie
To:	Svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Rest of River
Date:	Wednesday, December 08, 2010 4:25:35 PM

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman St.,
Pittsfield, MA 01201

I have read the "Corrective Measures Study" summary that G.E. submitted for the "Rest of River." I have issues with both the EPA and GE concerning cleaning the "Rest of River."

I watched the video that was presented earlier, at the sportsmen's club, and that can be viewed on G.E.'s website.

I vote for the "Monitored Natural Recovery." But I would take the estimated reconstruction funds and put it into a special account. There has been talk, years ago, about developing a "pac-man" enzyme that would "eat" the PCBs. When the enzymes become available they could be bought and sowed along the river.

I do not want to see the diverse ecology of the river destroyed just to clean up the river. The damage has already been done. And, I heard that some of the PCB "hot" spots that were allegedly dredged actually were not cleaned properly.

Leave the "Rest of River" alone. Enough damage has already been done.

Thank you for your time.

Regards,

Charles Chapin
Pittsfield

January 28, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

As a relocated resident to Berkshire County, I find it appalling that the "concerned citizens" of Berkshire County would allow a multi-billion dollar giant like GE get away with low impact clean up on the River Project. I moved here in the late 1980's to raise my children from Philadelphia. Had I known then what I know now..... I am writing to comment on General Electric's Revised Corrective Measures Study, which was submitted to the EPA for review in October.

I strongly urge you to consider a complete and final solution. One that involves CLEANING the RIVER, ridding our streams of PCBs so that one day, you could actually swim in that river again...eat the fish out of that river, and not count the dead animals lying about from toxins that plague their very existence. While it ONLY surrounds us, there are animals, fish, and fowl that frequent that 10 mile area without warning and without hesitation. I am shocked at your decision to leave well enough alone.

A radical dredging effort, similar to that undertaken by GE previously, would last a minimum of 10 years, yes, but I'm not sure about your quotation of thousands of trucks....really???? Come on now, we've never seen thousands of trucks and if we did, over 10 years that's hundreds...and there should be. Get that stuff out of here and where to dump it? Try GE national headquarters...with a note...We found this after you left. Thought you might like it back!" And if dredging is not your cup of tea, get really radical and try something new...something cutting edge...like PCB eating worms. I hear they work well in Europe; I can't see why our PCBs would be any less interesting for the worms, can you?

While some of the business around here may suffer on the short stick, they should be banning together demanding the resolution of the long term effects of polluting our national heritage, taking away from leisure activities that could stem or develop from the Housatonic River business. Please stress a clean-up effort that meets rigorous EPA human health standards, and protects the integrity of the river and the important role that it plays in the Berkshire County economy and quality of life....the long term life !

Sincerely,

Carla Child

Carla Child

Housatonic resident

RECEIVED
JAN 31 2011
By

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Saturday, January 29, 2011 12:00 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (028115944) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:As citizens of Berkshire County, we strongly favor a low impact clean-up solution for the Housatonic River. To preserve the beauty and to protect the flora and fauna along the River should be the goal of all of us.
Dan and Linda Ciejek, East Otis, MA

03) Name:

05) (required) State:MA

From:	Lauren Clark
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	EPA Rest of River Project
Date:	Thursday, December 09, 2010 11:41:23 AM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Lauren Clark
Housatonic, MA 01236

From: Adrienne Cohen
To: Palmieri, Linda
Subject: copy of letter sent to Susan Svirisky
Date: Wednesday, December 08, 2010 10:58:07 PM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup. And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Adrienne and Mark L Cohen

keep our river beautiful

Cohensa to: Jim Murphy 01/28/2011 06:03 PM

Please support a low impact clean-up solution of the Housatonic River. This will help to protect this beautiful and important river.

Your support is very much appreciated.

Sue Cohen

From: John Coleman
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Saturday, December 11, 2010 01:48PM
Subject: Housatonic River Clean Up

History: This message has been forwarded.

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.
I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.
I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.
And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.
Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

John Coleman
GreenCore Builders

January 31, 2011
Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky,

I am writing you about General Electric's 2010 Corrective Measures Study (CMS) for the Housatonic River Site, Rest of River. It's flawed in many ways. GE should take full responsibility for all of the PCB contamination in the Housatonic River and it should undertake an ecologically responsible cleanup to remove as much contamination as possible. It is not acceptable for GE to claim that the river is a healthy ecosystem. The fish and wildlife of the river have been poisoned and people living near the river are exposed to serious health risks.

I don't believe GE is making a good faith effort in the cleanup. I feel this CMS should be rejected and GE should be removed from the remediation process.

Please reject GE's claim that to clean the river of PCBs will destroy the Housatonic. Many rivers have been effectively cleaned throughout the country. The CMS reliance on natural sedimentation to bury the PCBs on the river bottom is inadequate. The Housatonic has a low sedimentation rate. One muskrat rubbing its belly on the bottom can undo years of sedimentation. The PCBs must be removed.

Please reject any GE plan to create PCB dumps in or alongside the Housatonic. There are already existing dumps .GE has created two in Pittsfield and there are others across the country. Please insure that sufficient consideration is given to measures that minimize the impact of roads and staging areas in the floodplain.

If the EPA chooses a cleanup program that involves dredging, please use the latest and least intrusive forms to minimize potential dangers arising from such an operation.

Please consider microhabitats and habitat resiliency along with PCB concentration in choosing appropriate remediation approaches. The remediation process should also have the ability to adapt and change from lessons learned as the cleanup progresses.

I urge the EPA to actively pursue a range of alternative remedial technologies in the cleanup – technologies that may effectively destroy PCBs. These include in situ treatments. The Housatonic deserves to have a series of pilot projects to see whether any of these new technologies are appropriate. I feel a revised CMS should incorporate new technologies.

GE suggests in its video, "The Fate of a River", that a comprehensive cleanup would be ecologically devastating and would result in a riverbank with no trees. This is not the case. Cleanup along the riverbank near Dorothy Amos Park in Pittsfield was successful. Habitats were protected, vegetation was restored (not stripped) and the river is now looking good.

We've suffered the toxic effects of PCBs in our river for almost a century. We can live with a few years of remediation work. Only a comprehensive cleanup will restore the Housatonic River and provide the people and the wildlife of Berkshire County the river they deserve.

Sincerely.

Jamie Cooney

Pittsfield, MA 01201

January 26, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

As a concerned citizen of Berkshire County, an avid kayaker, and with the Housatonic River virtually in my backyard, I am writing to comment on General Electric's Revised Corrective Measures Study, which was submitted to the EPA for review in October.

I strongly urge you to consider a low-impact solution that does not involve extensive dredging of the entire ten mile stretch from Canoe Meadows to Woods Pond. Unlike the first phase of this cleanup effort, which was largely located in an industrial district, the *Rest of the River* flows through a natural, forested wetlands area filled with wildlife and recreational activities enjoyed by residents and visitors alike. I really can't imagine what the landscape would be if the dredging occurred. It truly would be devastating.

A drastic dredging effort, similar to that undertaken by GE previously, would last a minimum of 10 years, during which time thousands of trucks and construction equipment vehicles would travel through residential areas in southern Berkshire communities that rely on tourism for economic survival. This major effort would also require staging areas and dewatering facilities to be built through these forested and wetlands areas causing widespread, extensive damage. Once complete, the dredging would forever change the natural landscape of the river and our communities, preventing residents from enjoying the area as they have for hundreds of years.

I urge the EPA to consider a low-impact solution to the clean-up effort that meets rigorous EPA human health standards, but protects the integrity of the river and the important role that it plays in the Berkshire County economy and quality of life.

Sincerely,

Michelle M. Costa

Michelle M. Costa
111 Lucia Drive
Pittsfield, MA 01201

RECEIVED
JAN 31 2011
By

From:	Bonnie Costello
To:	svirsky.susan@epa.gov; Palmieri, Linda
Cc:	
Subject:	PCBs on Forrest St.
Date:	Saturday, December 04, 2010 12:15:09 PM

I am a property owner in Tyringham, Ma. on a road just off Goose Pond Road, which is the extension of Forrest St. in Lee. I have heard that you are planning to store pcb waste on Forrest St. and I am concerned. First, a stream runs along the entire length of this road. How will water be protected? Second, have homeowners in this area been consulted? do they have any rights? There has been a lot of home building on Forrest St. and Goose Pond Rd. in the 12 years I have owned property here. It is now a fairly dense area. It is also part of the Housatonic water shed.
I don't understand why this congested area has been proposed for waste storage.
Thank you.
Bonnie Costello
Tyringham

To Susan Svirsky December 9, 2010

Environmental Protection Agency Rest of River Project Manager:

Comments on General Electric's 2010 Corrective Measures Study

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I am a life long resident of the town of Lee, Massachusetts and I would like to express some of my concerns regarding the clean up of the rest of the Housatonic River. More specifically the portion from Fred Garner Park down to, and including Woods Pond in Lenox. I am in no way an expert on the subject, but I have tried to educate myself about some of the proposed options. **In my opinion, leaving high concentrations of PCB's in the river should not be considered as an option.** It appears to me that GE has gone to a lot of trouble to convince people that they would have to destroy the river in order to clean it up. The most recent scare tactic is that they will take contaminated sediments from the river and make toxic dumps in the towns of Lee, Lenox, and Great Barrington. I hope that your agency can come up with the best option or combination of options to clean this portion of the river with the best technologies available to do the least amount of damage to this environmentally sensitive part of the river; along with other hot spots in the River with high concentrations of PCB's south of Woods Pond. **I also believe that the toxins removed from the river should not be spread throughout Berkshire County towns.** I would like to see the PCB's removed from the contaminated sediment or have the contaminated sediment shipped by rail to licensed hazardous landfills outside of Berkshire County.

I believe that Woods Pond has great potential to be used as an integral part of the clean up of the river above Woods Pond. Its natural ability to settle out PCB's from the river is indicated by the high levels of contaminated sediments in the pond. Woods Pond should be dredged to remove PCB's and it's ability to stop sediments from migrating further down the river should be improved, if possible. This would help to insure that further contamination down river does not take place while clean up of the river is in progress and to stop (hopefully only low levels of PCB's) after the clean up is completed. At that point Woods Pond could be monitored and dredged again as further contaminates settle out from the cleanup process or from future remaining PCB sediments migrating down river into the pond.
I don't feel that we have to remove every last trace of PCB's but the high concentration areas should be cleaned and restored with the best technologies available.

Thank you

John Coty Jr.

John Coty Jr

Lee, MA. 01238

RECEIVED
DEC 13 2010
By

PITTSFIELD, MA
DEC. 12, 2010

MS SUSAN SVIRSKY
EPA REST OF RIVER PROJ. MGR
c/o WESTON SOLUTIONS
10 LYMAN ST
PITTSFIELD MA 01201

I FIRMLY BELIEVE THAT THE MONITORED NATURAL RECOVERY OF THE HOUSATONIC RIVER FROM PITTSFIELD THRU WOODS POND IN LENOX IS THE BEST SOLUTION TO THE PROBLEM OF PCB'S IN THE HOUSATONIC.

THIS IS A LOVELY STRECH OF RIVER THAT IS GREAT FOR KAYAKING & CANOEING & CATCH & RELEASE FISHING.

THE DREDGING & CAPING OF THE RIVER & WOODS POND CREATS FAR WORSE PROBLEMS THAN IT SOLVES. THINK OF ALL THE AIR POLUTION THE CONSTRUCTION EQUIPMENT WILL CREAT OF THE YEARS THIS PROJECT WOULD TAKE.

RECEIVED
DEC 14 2010
By

SINCERELY,
Richard O. Cowan

From:	Laurie May Coyle
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	GE PCB Dumps in/near the Housatonic River in Massachusetts
Date:	Saturday, December 11, 2010 7:37:59 PM

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Laurie May Coyle
--
_____
_____

dredging of Housatonic River

Naomi Cramer to Jim Murphy 01/28/2011 08:18 PM

Please accept the 1Berkshire and Smart Slean-up Coalition low impact solution to the Phase 11 of the Housatonic River Clean up. The Berkshires economy and tourism depends on a cleaner solution than the one originally proposed and done up-stream.

Thank you for considering the importance of the Berkshires for those of us who live and vacation there.

Naomi Cramer Teaneck, N.J. 07666

From: david darcy
Sent: Wednesday, January 26, 2011 7:59 PM
To: Susan Svirsky
Cc: Palmieri, Linda
Subject: The Housatonic Project

Dear Susan,
I am writing as an interested party and longtime member of the Massachusetts Audubon Society to make my opinion known about the revised CMS report that outlines the three alternatives for dealing with the remaining PCBs in the Housatonic river. I have watched the DVD that GE produced, and I have tried to stay informed about the status of the project.

My first choice of the three alternatives is No. 1, the Monitored Natural Recovery approach, because I feel that the PCB level in the river is now low enough that nature can take care of the rest. This approach would be the least intrusive and probably cost the least to implement.

If that idea cannot be met, then I vote for implementing No. 3, the ESA approach.

Under no circumstances would I support No. 2 because it will disrupt a long stretch of the river and the surrounding area for probably years, and it will do irreversible harm to both.

I lived for twenty years within sight of the river near the New Lenox Road bridge and boat launch, and I often walked in the early morning along the oxbows and switchbacks south and north of the bridge, taking pictures of the river and wildlife. I also paddled a canoe several times with a friend, traveling from the Pomeroy Avenue area to Woods Pond, so I know how beautiful and peaceful it is with the trees and shrubs all along the riverbank. I can't imagine that all gone forever.

I hope that there will be enough support for the implementation of either option 1 or option 3 that the EPA will see the wisdom in one of those approaches.

Thank you and Weston Solutions for allowing me to comment on this very important project.

Yours very truly,

Dave Darcy

Pittsfield, MA

DATE: Nov 22, 2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. As a resident of Pittsfield, I urge you to take the course of Monitored Natural Recovery. Over the past years, we have seen less and less PCBs in the River. Any disruption to the riverbed and riverbanks will churn up PCBs and will have a significant negative impact on the river itself as well as on the plants and animals along its banks. And without a doubt the people who live along the River and in the nearby communities will face all of the negative impacts that digging up the River will cause.

Please do not force GE to take actions that will destroy our river.

Sincerely,

James E Miller

Pittsfield, Ma, 01201

RECEIVED
NOV 24 2010
By

To: <letters@berkshireeagle.com>, <berkrec, Susan Svirsky/R1/USEPA/US@EPA
From: "Dayton DeLorme"
Date: 11/23/2010 11:18AM
Cc: "daytonsharon"
Subject: letters

We feel it would be a huge environmental mistake to dredge the Housatonic River and risk ruining it forever.
PCB's are bad news of course, but nothing will destroy them, dredging amounts to stirring them up and moving them within a million tons of contaminated soil to pollute another site. It makes little sense to disturb what is already burying itself deeper each year while the riverbanks and surrounding forests continue to flourish. In spite of PCBs, wildlife has survived, adjusted and carried on.
Proponents for dredging simply want to make GE pay for damages, but many other industries have also dumped their contaminants over the world.
We're smarter now and know we must save the earth. Perhaps the safest solution is to let sleeping PCBs lie and allow mother nature to heal herself as she does from other natural disasters such as earthquakes, forest fires, hurricanes and floods.

Sharon and Dayton DeLorme
Lee, Ma 01238

DATE: Dec. 9 2010

TO: Susan Svitsky, EPA Rest of the River- Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

FROM: Marguerite De Santis

Great Barrington, MA 01230 (01230)

RE: General Electric Proposed Clean-Up of the Housatonic River

I live next to the corner of Dresser Ave and River Road in Great Barrington. I look out of my front window and I see the Housatonic River. I am very concerned about the Absurd idea of Dredging and dumping PCBs in the beautiful Berkshires. My understanding is that there are three options on the table for the EPA. Dredging and Dumping, Dredging and Shipping to Texas, and Dredging and burning. None of these options seem appealing. None of these options seem reasonable or fair.

So, what is to be done to promote the very necessary clean –up of the River?

I am of the understanding that a Wood Ducks that was tested had 3700 ppm of PCBs when 50 is the maximum allowed. Clearly something must be done!

I am an Exclusive Buyer Broker and I work for Buyers. Many years ago, my Buyers wanted to purchase a property in Sandisfield. The unsuspecting owner had buried the tank during the oil crisis in the Carter Administration. And, the owner assured us that there was "extra sheathing" around the 500 gallon tank. I was there when the tank was dug up. The "extra sheathing" looked like a torn kitchen garbage bag and the oil had gone under the house and into the wetland. The company that did this was out of business. There was a strong smell of petroleum at the property. The oil was leaking everywhere...what could be done? A similar house in New Marlborough had a similar problem. The used Maximillion to excavate and it cost the Sellers over $100K. Since the Sellers could not afford the clean –up, they returned the keys to Berkshire Bank.

FORTUNATELY... THERE WAS ANOTHER WAY.

We did some research and discovered that the DEP did approve micro-organisms to be injected into the soil, and although it took several years (since the microbes only worked when it was hot in the summer) this "fix" worked and cost the Sellers around $28K, a substantial savings.

Now I hear that there are similar type microbes which can "eat" the PCBs. I am very encouraged by this method because of my experience in Sandisfield. This could be "win-win" situation for the people, and G.E.

I do not think that the EPA should move forward with ANY remedy unless there is research that supports any process and there will be a permanent fix to this problem without further polluting our environment.

RECEIVED
DEC 13 2010
By

PCBs are not like yesterday's oatmeal left on the bottom of the river as GE might suggest. PCBs are carcinogenic and I look to the EPA and the DEP to PROTECT my family, my friends and myself as well as all those who live in the Berkshires.

The proposal by G.E. is beyond stupid and flies in the face of alternative methods. Surely, 60 days is not enough time to explore alternative technologies and make an informed decision about what is the best way to rid the river of the PCBs.

Please keep me safe and inform the public of any decisions made by the EPA and the DEP. Please review for me your process in making this decision and how the public can have further input. I look forward to your response.

Sincerely,

Marguerite De Santis

From: Dagan
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: GE and PCB cleanup
Date: Saturday, December 11, 2010 4:22:32 PM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.
Dagan Diaz

From: William Dillof
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Wednesday, December 08, 2010 01:39PM
Subject: G.E. Toxic Disposal

History: This message has been forwarded.

Tyringham, MA
December 8, 2010

Dear Ms. Svirsky:

As a resident of Tyringham, MA, I am writing to express my extreme dismay at G.E.'s proposal to locate a toxic disposal site in Lee. It is my understanding that the proposed site would be in the corner of Lee immediately adjacent to Tyringham. Were you to visit this area you would find virtually pristine forest along both sides of Forrest Street, which winds uphill along the banks of Goose Pond Creek to Upper and Lower Goose Ponds, two of the perennially purest lakes in Massachusetts. In the spring Trout migrate up the creek on their way up from the Housatonic. As a member of the Tyringham Conservation Commission, I can state with authority that this a a town acutely concerned with conservation of its precious natural resources. A toxic waste site on our border, within our contiguous ecological system, would be an abomination. I am confident that the EPA will do all within its power to restrain G.E.'s venomous tentacles from reaching into Tyringham and its bordering forest.

William Dillof
Tyringham, MA 01238

From: Rosemarie and Jim Dolson
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Saturday, January 01, 2011 11:06AM
Subject: Housatonic River Clean Up

History: This message has been forwarded.

Susan,

I am a resident of Stockbridge, Ma. and have enjoyed boating on the Housatonic River.
I am writing today to ask that you consider a sensible solution for the "Rest of the River".
The Ecologically Sensitive Approach is a less damaging approach that will provide for a cleaner river while maintaining the nature and character of the river necessary to support the diverse wildlife.
Don't destroy the river to fix it.
Don't put the landfill in Berkshire County.

Sincerely,
Jim Dolson
Stockbridge, Ma. 01262

From: jdovydenas
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, December 13, 2010 10:51AM
Subject: Housatoni c River Cleanup

History: This message has been forwarded.

The following are my comments re. the proposed Housatonic River cleanup.

I say leave the river alone - doing something will do more damage than doing nothing. The Berkshires are known for their natural beauty - do not disturb it.

Create a 5 year research program funded by GE to find a way to neutralize the PCBs in place.

As far as eating the fish - no one does. Fishermen catch and release. They do this not because there are PCBs in the fish, but because that is the nature of their sport.

For those who must eat the fish they catch try this: establish an exchange program whereby fishermen turn in their Housatonic fish for a coupon of an equivalent amount of fish of their choice at any supermarket that sells fresh fish. This approach is neither complicated nor expensive to administer.

Please disregard suggestions that are premised on punishing GE. Let's not ruin a beautiful work of nature to satisfy a political end.

Jonas Dovydenas
Lenox, MA 01240

Housatonic clean-up

bldowling to: Jim Murphy 01/31/2011 09:11 AM

Mr. Murphy,

It is very important to both the ecology and asthetics of the Housatonic River Valley that a low impact solution be found to the clean-up of the river. The Berkshires are highly dependent for their economic well being on tourism and a dredged up mess of a river would be counterproductive and would cause both economic as well as environmental damage to the area. Once dredged up and disrupted, the ecology of the region would be drastically altered and might never recover. There are safer and less destructive solutions than wholesale dredging and I urge you to find them and implement them to protect the integrity and beauty of the Housatonic River.

GE devastated the river with it's toxins and indifference. Please don't devaste it a second time with irresponsible "solutions."

Sincerely,

Barbara Dowling

West Stockbridge, MA

From:	Laura Dubester
To:	svirsky.susan@epa.gov; Palmieri, Linda
Cc:	alan silverstein
Subject:	Comments on "Rest of River"
Date:	Tuesday, December 14, 2010 10:19:50 AM

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

We are grateful to EPA for considering public comments and perspectives with respect to the General Electric's 2010 Corrective Measures Study. We hope that the EPA's decisions and actions will further its mission – "to protect human health and to safeguard the natural environment—air, water, and land—upon which life depends."

We have lived in South Berkshire for more than thirty years. We resided for twenty years directly across from the Housatonic River in the village of Housatonic. We regularly walk, bike ride and kayak along or in the river – and appreciate its beauty and role in our local eco-system. In our professional life, we formerly co-directed the Center for Ecological Technology (CET), a non-profit organization committed to demonstrating and promoting positive environmental solutions to our every day activities.

In making your decision, we hope you will do what is best for the river – and all the life and economy that it supports - over the long-term. We believe that General Electric should be required to pay for and implement the most ecologically-responsible clean up possible. The plan should be flexible to incorporate new and innovative technologies as they come to market. And lastly, the legacy of PCB pollution should not be storing, landfilling or incinerating PCB's in the Berkshires.

Thank you for your consideration. Please call on us if we can be of any help.

Sincerely, Laura Dubester and Alan Silverstein
Stockbridge, MA 01262

DATE: NOV. 23, 2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. As a resident of Pittsfield, I urge you to take the course of Monitored Natural Recovery. Over the past years, we have seen less and less PCBs in the River. Any disruption to the riverbed and riverbanks will churn up PCBs and will have a significant negative impact on the river itself as well as on the plants and animals along its banks. And without a doubt the people who live along the River and in the nearby communities will face all of the negative impacts that digging up the River will cause.

Please do not force GE to take actions that will destroy our river.

Sincerely,

Donald J Duda

RECEIVED
NOV 29 2010
By

From:	Mary Dunham
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	[BULK]
Date:	Wednesday, December 15, 2010 9:08:19 AM
Importance:	Low

Susan Svirsky,

I am writing you as a Stockbridge, MA resident to express my concern about General Electrics 2010 Corrective Measures Study for the Housatonic River and their proposed approach to address PCB contamination in the Rest of the River.

I applaud the clean-up measures which have already occured in Pittsfield and feel strongly that the job needs to be completed. The ecological and human health risk are serious and clear. I urge you to hold GE responsible for its pollution and for remediation of the river and not simply let it be. I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. I believe that more research needs to be done on alternative remediation technologies. I also believe if dredging is chosen as the clean-up method that the EPA needs to make sure that GE engages in dredging in the least ecologically damaging way possible.

Thank you.
Sincerely,
Mary Dunham
I

Paul Dyka

Middletown, Ct 06457
01/25/2011

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky,

I write this letter to express my strong opposition to the clean up and dredging the entire stretch of the Housatonic River that flows from the Pomeroy Ave Bridge to Woods Pond. My concern also extends to the stockpile of extracted PCB laden sediment into a Berkshire County landfill. I would support the removal of PCBs from highly concentrated areas such as Woods Pond.

The clean up and dredging that occurred in the first two miles of the river, substantially altered the eco-systems and scarred the natural beauty of the river. The proposed PCB clean up of the river will destroy the largest wetland area in The Commonwealth west of the Connecticut River. This area acts as a nesting and respite area for thousands of migratory birds. The large population of Kayakers and Canoeists would be forced to abandon this area due to the large, jagged, and obstructing rocks which will destroy the hulls of most watercraft. The fish and wildlife will have no shade or natural obstructions to protect them from the rising river levels and the hot summer sun. The flow of the river, which has taken thousands of years to form, would be lost forever.

Please consider the contents of my letter before you make a decision to destroy one of the true jewels of the Berkshires.

Sincerely,

Paul Dyka

Paul Dyka

RECEIVED
JAN 26 2011
By

Opposition to Phase II cleanup of Housatonic River as proposed

Edelstein, Stewart I.

to: Jim Murphy, rep.christohersperanzo@hou.state.ma.us, rep.smittypignatelli@hou.state.ma.us, bdowning@bendowning.org

01/31/2011 02:23 PM

To All:

As a homeowner in Stockbridge, Massachusetts near the Housatonic River, I write to oppose EPA's planned Phase II cleanup of the Housatonic River. Instead, I advocate a low-impact solution that still meets EPA's standards, and that will be less destructive to the environment. We don't need to devastate the beautiful Housatonic to save it.

Stewart Edelstein

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To: Susan Svirski, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

From: Clinton Elliott

Tyringham, MA 01264

8 Dec, 2010

Regarding GE naming Forest St, Lee, as one of three possible sites in Berkshire Co. on which to dump toxic wastes, I would like to point out that Forest St. closely follows the course of Goose Pond Brook from its mouth upstream for 2.3 miles, and that Goose Pond Brook eventually empties into the Housatonic River.

Clinton Elliott

RECEIVED
DEC 13 2010
By

DECEMBER 4, 2010

To: Susan Svirsky, EPA

Re: Comments on GE's Corrective Measures Report

From: Lester Ettlinger, Great Barrington, MA 01230

I am writing to you to express my views on GE's proposed alternatives to the clean up of the 13 mile stretch of the Housatonic River from the confluence of the East and West branches, near Pittsfield, through western Massachusetts to Connecticut. GE has submitted the, " Housatonic- Rest of River - Revised Corrective Measures Report", October, 2010, for public review and comment.

In order to put the river's situation in perspective, let me clarify a few points. GE has discharged hundreds to thousands of tons of PCBs (polychlorinated biphenyls) into the Housatonic River over the last 70 years. The Environmental Protection Agency (EPA) ranks the Housatonic River as one of the most PCB contaminated areas in the country. Wild animals that swim in and drink River water contain hundreds to thousands of parts –per- million concentrations of PCB contamination. Objects that contain 50 parts-per-million or more are considered by EPA to be hazardous waste. EPA classifies PCBs as a probable human carcinogen and studies link PCBs to development and neurological disorders in children. Since 1982, Massachusetts environmental advisories discourage eating fish caught in the River and prohibits both swimming in the River and drinking the water. If the River is not suitably cleaned up, these advisories are likely to stay in place forever. The state of Massachusetts has designated 12,000 acres along the upper Housatonic as "an area of critical environmental concern".

In GE's report, they describe the Housatonic River as environmentally robust and healthy and that PCB contamination has not destroyed or degraded the ecology of the Rest of River and that the indigenous flora and fauna have flourished. Accordingly, GE's preferred alternative is to "do nothing and watch" and let nature heal the problem. GE has also suggested backup alternatives in case their preferred alternative is not approved by EPA and the state. These include dredging a limited amount of river sediments and floodplain soil and disposing them in engineered landfills (to be built in Lee, Lenox, and Housatonic) constructed in either the River or adjacent to the River (outside the 500-year floodplain). These alternatives would not reduce the PCB contamination to level s of 1 part-per-million, and will not meet public Health and Safety Standards**. These proposed alternatives are another insult by GE to those who live near this contaminated River and do not merit approval by EPA, the state of Massachusetts or the public.**

There is one alternative, however, which will do justice to the River, its inhabitants and to the thousands of citizens and tourists who live in and visit the Berkshires. (1) Dredge the River and the floodplain such

that what remains will meet public health and safety standards; (2) Dispose of the contaminated material in a permanently dry, licensed, off-site disposal facility using rail transport; (3) Backfill with clean uncontaminated soil; (4) Mitigate any dredging disruption by stabilizing the River banks, and by planting appropriate vegetation and trees to return the River and environs to a safe and healthy habitat. Environmental advisories could then be lifted and the Housatonic River could be returned to the condition it was in before GE began its contamination.

Thank you for your attention to this important matter

From: "Mr RICHARD EVANS"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Thursday, December 09, 2010 10:22AM
Subject: GE 2010 CMS

History: This message has been forwarded.

To the EPA c/o S. Svirsky
I am writing after learning of the GE 2010 CMS. It appears that GE proposes to do the least it can to ameliorate this diffficult situation. I would rely upon the EPA to investigate and pursue existing alternative technologies for a PCB cleanup that will, in fact, protect us. Please make every effort to do this.
Thank you,
Richard Evans, MD
Great Barrington

Mr. Marc Fadding, President Marconica, Inc.
Ms. Angela Vuagniaux

Glendale, MA 01229

January 26, 2011

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky,

Last autumn, for the first time, we took the kayak we've owned for two years down the Housatonic River from Pomeroy Avenue to Woods Pond. Navigating this beautiful stretch of the river was like being in a forgotten land... There were huge trees, some that had fallen into the river that we had to maneuver around, which made the day an adventure. It felt like one of the wildest places, right here in the Berkshires: Wetland birds, various ducks, kingfishers, herons, abounded along the way... We even saw a wood turtle on the bank! Anyway, as lifelong Berkshire residents, this trip was the highlight of our kayaking experience here to date.

Please do not dredge this stretch of the Housatonic River, and leave PCB-ladened stockpiles nearby. Rather, we prefer the plan to dredge Woods Pond only – and to do it again and again, as needed. It is already an unnatural part of the river because of the manmade dam. We'd like to see the PCBs removed from the area, and this seems to be the less invasive procedure.

Please, do not un-naturalize and scar any more of this river! Take the gentler, less destructive option in order to preserve as much natural habitat as possible.... for flora, fauna, and humans sake!

Thanks for listening and good luck!

Sincerely,

Marc Fadding

Angela R. Vuagniaux

Marc Fadding

Angela Vuagniaux

RECEIVED
JAN 27 2011
By

Housatonic River Clean Up

PLF3011 to: Jim Murphy 01/29/2011 11:25 AM

Please do not change the natural flow or landscape of this beautiful river from which so many residents of and visitors to the Berkshires derive such pleasure. The low-impact solution would not have a major negative impact on the environment, wildlife and residents of the area so please choose that solution.

Thank you for keeping the Berkshires as beautiful and special as it is.

Patti Feinman

From: Michael Feldstein
Sent by: mindwires

To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, December 13, 2010 09:30AM

Subject: GE Corrective Measures Comment

History: This message has been forwarded.

Dear Susan:

This community has had enough. It now seems as if the last two decades' worth of information, ideas, and concerns have been ignored. Please do not let GE pretend that there are no viable answers and use this as an excuse to push yet another cheap "fix" that they and everyone else knows is utterly unacceptable onto this community. We have moved far beyond resorting to or accepting such tactics. Our commitment to finding and piloting environmentally safe but effective alternatives has been reaffirmed over and over again. Yet these proposals have repeatedly been dismissed.

Regarding General Electric's 2010 Corrective Measures Study, its inadequacies have been made clear on numerous occasions using objective, scientifically based, and carefully reasoned arguments that are now all too familiar. The EPA must use the power of its authority to make GE take full responsibility for all its PCB-contamination of the Housatonic River and undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

We reject the use of scare tactics to build consensus for doing nothing. I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country. We can do it too.

I also urge you to reject out of hand any GE plan to create PCB dumps in or alongside the Rest of the River. This proposal contradicts the argument that the river is healthy, and it is a cynical approach that writes the Housatonic off as a pre-existing dumping ground. GE has already taken the quick and dirty route by creating two large-scale dumps in our back yard, which we will live with in perpetuity. Allowing the river to continue to be an extension of that is not acceptable.

But most importantly I urge the EPA to actively pursue promising alternative remedial technologies – technologies that effectively destroy PCBs, many of which have already been proposed and studied. We owe it to future generations to have a series of pilot projects on the most viable methods, to determine which of these new technologies, perhaps in combination, would be most suitable to the Rest of River cleanup. Neither a quick fix nor a slash-and-burn approach are appropriate when we know many other flexible options are available. Please consider the cost of intelligence versus the cost of ignorance, both in the short and long term. GE has already imposed their legacy upon us. This is the final opportunity to replace their legacy with one we can live with in good conscience.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Only an intelligent, scientifically informed, and comprehensive cleanup will restore the Housatonic River and return to the people and the wildlife of Berkshire County the healthy River they deserve.

Thank you.

Kindest regards,
Michael Feldstein
Great Barrington

Joan Findlay Dunham

New York, NY 10128

December 9, 2010

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield
MA 01201

Dear Ms. Svirsky,

I am very concerned about the General Electric Company's proposals for cleaning the Housatonic river from Pittsfield south to Woods Pond.

I understand that the approach GE favors is to do nothing. I urge the EPA to make GE clean the Housatonic of the PCBs they have dumped in the river. I don't know what is the best approach to accomplishing this, but I urge the EPA to take an active role in the decision making process so the best scientific data is independently brought to bear on what GE is required to do.

Thank you for your attention in this matter.

Sincerely yours,

Joan F. Dunham

Joan Findlay Dunham

RECEIVED
DEC 13 2010
By

From:	RWFISCHER
To:	Svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic Options
Date:	Wednesday, November 17, 2010 5:50:02 PM

Dear Susan-
I live on the headwaters of the Housatonic River. While it got polluted downstream many years ago, I feel the less done now, the better. I would vote for option 1. Monitored Natural Recovery. I feel that nature is self-healing, and this will happen on the River, if it's not tampered with.
Raymond Fischer,
Dalton, MA 01226

SINCE 1773

THE RED LION INN

STOCKBRIDGE, MASSACHUSETTS 01262

TEL. 413 298-5545

Ms. Susan Svirsky
EPA Rest of the River Project Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield MA 01201

25 January 2011

Dear Ms. Svirsky,

I'm writing to respectfully urge you to recommend more moderate approach to remediation during the Rest of the River phase of PCB removal than occurred during the first phase. Our tender, fragile, tranquil river ecosystem will be devastated by such an extreme approach on this stretch of the Housatonic.

This beautiful river flows through most of Berkshire County, as you know. This is a rural area where tourism, outdoor activities and natural beauty contribute mightily to our economy. It's not at all clear that a total river clean up will create a healthier environment for my neighbors, our children or me, especially if the toxic material is piled up along unspoiled riverbanks in our small towns.

The ultimate decision should be to bide our time, to monitor the situation and to welcome existing or future technology that will neutralize the PCB's, if they are still deemed to be a danger.

There is growing support in the Berkshires for this strategy. A moderate approach by the EPA would be most welcomed. Many thanks for the time and effort you and your team are putting into this decision.

Sincerely,

Nancy J. Fitzpatrick

Owner

RECEIVED
JAN 26 2011
By

From: Sarah Flynn
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Sunday, January 30, 2011 02:00AM
Subject: revised CMS

Dear Ms. Svirsky,

The revised Corrective Measures Study is not an easy document for the lay reader to digest. But the one thing that seems clear is that GE favors little or no clean-up of the rest-of-river. While many ecologically minded reasons are given for this stance, they are all based on fear and speculation. The fear that, if we dare to attempt to restore the river to its clean, pre-GE state, the river will be recolonized with invasive species and the diversity plant and animal communities will be lost. The speculation that the the less we tamper with, the more quickly things will heal.

The white elephant in the room, of course, is that the more we leave undisturbed, the more PCB's will remain in the soil of the Housatonic ecosystem!

GE needs to clean up its mess. They need to stop trying to intimidate the people of Berkshire County and Connecticut with images of a torn, un-repairable river. Remediation can work. It is true that it will be difficult and expensive, due to the remoteness of many areas needing remediation and overall scope of the project. But GE reaped the benefits of contaminating the River, and now it's time for GE to pay the price.

Sincerely,
Sarah Flynn

Pittsfield, MA 01201

From: "Ralph Ford"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Friday, December 24, 2010 03:32PM
Subject:

History: This message has been forwarded.

.We are

residents of Lenox and have enjoyed canoeing the Housatonic. Hope you do not consider leaving the river in Lenox as you did in Pittsfield. .Prefer natural recovery.

If not possible go for the ESA.

Ralph & Mary Helen Ford

Lenox, Ma.

From: Mickey Friedman
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, December 13, 2010 10:58AM
Subject: Comme nts Revised CMS

History: This message has been forwarded.

December 13, 2010

Susan Svirsky

EPA Rest of River Project Manager

I am not an engineer, biologist, or expert in river remediation. I have, though, been reading and analyzing GE's studies for more than twenty years.

In my opinion, GE's revised Corrective Measures Study for the Rest of the River minimizes the many problems of PCB contamination in the Housatonic, and emphasizes the cost and difficulty of solving those problems. It is more propaganda than science.

GE's failure to provide a responsible corrective measures study begins with its claim that "even the highest historic levels of PCB contamination have *not* destroyed or degraded the ecology of the Rest of River; PCBs have been present for more than 70 years and yet the indigenous flora and fauna have flourished."

GE states this despite knowing that since 1982 the Massachusetts Department of Public Health (MADPH) has issued a fish advisory due to the high levels of PCBs in fish tissue. MADPH later extended this order to frogs and turtles and most recently to ducks.

EPA's peer-reviewed Ecological Risk Assessment found significant risk to species ranging from the microscopic aquatic invertebrates to the threatened bald eagle.

EPA's Human Health Risk Assessment found there were risks to humans from direct contact with soil and sediment; eating fish, frogs, turtle or waterfowl; and eating agricultural products grown in the floodplain.

Despite an ever-increasing body of scientific knowledge about PCBs and endocrine disruption, neurological and motor control problems, including lowered IQ in the children of women who consumed fish with high levels of PCBs, GE maintains: "PCBs have not been shown to cause cancer in humans or to cause adverse noncancer effects in humans at environmental levels."

We already know that fish can swim and birds can fly while exhibiting and passing on multiple symptoms of disease. Just like most of us already know our friends and family can endure while suffering through a variety of cancers. The issue here is finding a comprehensive treatment, and hopefully a cure for a river poisoned with PCBs.

Allow me an additional concern. The EPA, in its July, 2003 Fact Sheet on Ecological Risks, states: "**Animals are exposed to contaminants through breathing (inhalation) …** " Yet the EPA neglects this critical pathway when it comes to assessing human health risks. Recent work

by Dr. David Carpenter of the School of Public Health at State University of New York, Albany suggests a strong link between inhalation of PCBs and human health risks.

Dr. Carpenter notes: "We found that living next to the Hudson River … suggests the chance of having a heart attack is 39 fold greater than if you live in a zip code that doesn't abut a hazardous waste site. This is the highest risk ratio we have ever found for any disease." His Hudson River data also found a 36 fold elevated risk of diabetes.

Dr. Carpenter adds: "the levels you have in air in most of the sites where it has been measured are not terribly high. But I think our results suggest that you don't need high levels in order to have adverse health effects."

In GE's world, PCBs are fine and the fish are fine and the river would be fine if only the finicky government regulators would let it be. So it is not surprising then that GE's favored course of action is inaction: "Therefore, GE believes that the least intrusive approach – "Monitored Natural Recovery" – is best here."

GE, whose callous, irresponsible use of PCBs and immoral dumping practices destroyed the Housatonic River in the first place, ironically now argues that forcing them to undo their damage will destroy it.

This is nonsense. Vernal pools have been successfully cleaned and restored. River banks and river sediments can be remediated. Yes, it is complicated and yes it will take time. But the river system will never be whole until it is clean. Humans who use the river or live beside it will be never be safe until it is clean. The extraordinary variety of plants, insects, fish, birds, and animals who make the river either a permanent or temporary home will never be healthy until the river is clean. This is not "destroying a river to clean it." This is cleaning a river to clean it.

When the Housatonic River Initiative agreed to drop its legal challenge to the EPA/GE Consent Decree, EPA Administrator Mindy Lubber pledged the EPA would investigate the feasibility of using alternative remediation methods to clean the river. Now is the time for such pilot studies. Technologies like thermal desorption and possible in place remedial methods reduce the need for landfilling. And there are already off-site approved landfills. There is absolutely no need for GE's proposed PCB dumps in the Rest of River system.

While GE is doing its best to convince people the river will be forever destroyed if they are forced to clean it, I am confident that the EPA can oversee an effective cleanup and scrupulously avoid unnecessary damage to the river system. I am confident that the EPA can insist upon a comprehensive river restoration program.

Only the EPA can give us back our fishable, swimmable river.

Sincerely,
Mickey Friedman
Great Barrington, MA 01230

Mickey Friedman
Blue Hill Films

From: Business Ann Gallo
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Saturday, December 04, 2010 12:39PM
Subject: GE PCB toxic waste dump site proposal

History: This message has been forwarded.

Dear Ms. Svirsky,

As an owner of both a home and vacation rental property in Tyringham, MA (near to the proposed Lee dump site), I was alarmed at the GE proposal to truck toxic waste to dump sites along the Housatonic River. It appears that in addition to leaving the city of Pittsfield in the lurch several decades ago when GE closed the plant, they continue to treat their old hosts, the people of the Berkshires, without any respect. GE continues to be unaware of, or are deliberately overlooking the impact of their thoughtless, offensive choices.

Apparently there are pre-designated toxic waste sites available, "out-of-state disposal sites", specifically prepared, approved and geared towards this essential need. Why is GE's selfless decision to cut corners and costs (or leaving the Berkshires to pick up the tab after they 'dutifully' pay their rediculously low portion of the costs) by dumping close to their 'sin'? Why, yet again, do they leave behind their waste on the shoulders of a struggling county?

I encourage whomever speaks on behalf the impacted towns to fight tooth and nail to prevent this egregious proposal and re-route the waste out of state to already existing toxic disposal dump sites. Leave the Berkshires cleaner than they found it, please.

Thank you.

Ann Gallo
Tyringham, MA

Housatonic River Clean Up

Ann Galt to Jim Murphy

01/29/2011 01:49 PM

Dear Mr. Murphy,
I would encourage the EPA to follow a low impact clean up of the Housatonic River between Pomeroy Avenue and Woods Pond on Lenox. I live two blocks from the park off of Pomeroy, next to the Housatonic River. Having walked along the River with our dog for 18 years, (between 1972 to 19890 cleaning her dirty paws from swimming in that River, daily from April to November each year), I have less PCBs in my blood than the average person. These blood tests were done back in 1995 by the Commonwealth of Massachusetts, Department of Public Health to "determine whether people who appear to have had more opportunities for exposure to PCBs actually have higher levels of PCBs in their blood". My blood test showed 3.43 parts per billion measured as PCB Aroclor 1269. The national average for serum PCB levels in non-occupationally exposed persons was 4-8 ppb. Thus, I showed no unusual PCB absorption in spite of walking areas, which were more recently drastically dredged, and dealing with that soil from our dog on a daily basis.
My concern is that being a two blocks from the Housatonic River during the dredging off of Pomeroy, which is near woods and open land, I found unusual birds and animals seeking shelter in our back yard. I believe this disturbance to wildlife is unnecessary considering the results of my blood tests. Certainly the noise and drastic dredging seems unwise especially when Silver Lake was not cared for before all the dredging in the first phase.
Sincerely,
Ann Galt

Pittsfield, MA 01201

Housatonic River

Sandra Garrelick to: Jim Murphy 01/28/2011 05:09 PM

Dear Mr. Murphy:

We support a low-impact clean-up solution that does not include extensive dredging .

Thank you for listening.

Sandra Garrelick

From: Jeanette Gavroy-Kudlick
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, December 27, 2010 02:43PM
Subject: PCB cleanup of Housatonic south to Woods Pond, & Rising Pond

History: This message has been forwarded.

Dear Susan,

The presence of PCB in the Housatonic is documented. The levels are very high in portions of the River and Ponds. PCB's are airborne and have affected people living in these areas. Please make GE responsible for cleaning up the PCB's. There are people living where the PCB's are airborne and they need your help.

Please bring the power of the EPA to investigate both the airborne situation and various ways to clean up the PCB's. PCB is a toxic substance in the water and airborne. We need the help of the EPA to make certain we are all safe.

I don't believe the PCB's are airborne at my home. Still I feel for those up the River who are and possibly if the clean up is not handled correctly it could boost PCB levels in the Housatonic at my location.

Thank you for your consideration.

Jeanette Gavroy

living along the Housatonic River in Sheffield.
Sheffield MA 01257

To: Susan Svirsky/R1/USEPA/US@EPA
From: "Ann Getsinger"
Date: 12/08/2010 11:10PM
Subject: GE and the Housatonic River

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you. Ann Getsinger

Michael Gigliotti

Pittsfield Ma
01201

Ms. Susan Svirsky
EPA Rest of River Manager
C/O Weston Solutions
10 Lyman St
Pittsfield Ma
01201

Ms. Susan Svirsky: I am writing regarding Housatonic River clean up. I have concerns regarding the clean up and the approaches being considered. That the river needs to be cleaned and allowed to heal is with out question. The approach that is taken is what bears deep thought. We cannot allow our actions of help to inadvertently cause increased damage. Most specifically I am bothered by the extended pollution and contamination that is likely with dredging. The more environmentally sensitive and respectful approach is the solution that is most warranted. The Housatonic River watershed is a special place that deserves protection. We should not kill the patient to save him.
My gravest concern however is for the location of the landfill. Berkshire County is a special place; our unique environment is not suitable home for a toxic landfill. When taking into account the location for a landfill, the environment and community that they will become part of is a grave consideration. I do not think or believe that our community is an appropriate place for the landfill.
Ms. Susan Svirsky, thank you for your time and consideration of this letter.
Sincerely

Mike Gigliotti

Michael Gigliotti

RECEIVED
JAN 19 2011
By

From: Carol Gingles
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Wednesday, December 15, 2010 05:46PM
Subject: Fwd: Delivery failure to <svirsky.suasan@epa.gov> ...

History: This message has been forwarded.

Susan Svirsky
Pittsfield, MA

I am writing to urge the EPA to hold GE accountable for its pollution of the Housatonic River. WE DESERVE TO HAVE OUR RIVER RESTORED TO PRE-GE CONDITION! Being a resident of the town of Housatonic, with the river a few hundred yards from my studio, I have firsthand experience of living next to a poisoned waterway; not being able to drink from , swim in, eat the fish from or even allow my dog to cool off in the Housatonic River is not acceptable.

GE has historically shrugged its responsibilities to communities (habitats, wildlife, etc.) and has criminally hidden its toxic dumping and logically should not even have a voice in resolving the matter. GE's assertion that all is well on the river is an affront to all of us on the Housatonic, and the plentiful scientific evidence refutes GE's stance on the benign nature of PCBs.

Americans are being trampled daily by the power of Corporate America and its short-sighted goals of more money and power. The Housatonic River will be here long after all of us living today are gone, including GE. Please take a strong stand with General Electric by making it accountable in restoring a clean, healthy river for all future generations who do not have the luxury of a voice in this critical matter.

Sincerely,
Carol Gingles Baier
Housatonic, MA

January 25, 2011

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky:

As the only residential property owner adjacent to Woods Pond, I have followed the ongoing discussion regarding the "rest of river" cleanup options with great interest while remaining on the sidelines.

Growing up by the waters of the Housatonic River in the early 1960s was a memorable experience for a young boy. Woods Pond was a quiet place back then, with little human activity other than the occasional hunting of frogs at night during the summer months. The town dump was located about a mile north of our home, and I can recall the smoke from the burning refuse drifting southward along the water.

Upon inheriting the family home in the late 1990s I began once again to spend time by the water. Having grown older and more observant, I noticed the abundant variety of plants and wildlife. As well, I noticed that people were now coming to the river with canoes and kayaks during the warmer months and were out on the frozen surface fishing during the winter. The installation of a pedestrian bridge across the river in 1997, along with the expansion of the Berkshire Scenic Railroad operation, made Woods Pond a destination of choice. It's not as quiet as it once was, but to witness the greatly increased use of this natural resource has been a pleasure.

What to do with the river and pond? I have to place myself among those who question whether a disruptive form of remediation such as dredging would result in more harm than good. Will the river have more tangible value as a natural resource following this type of treatment than it has already? Personally, I love this place and want to live out my remaining years here without witnessing the wholesale landscape destruction that resulted from the cleanup efforts in Pittsfield. I strongly urge the EPA to research and pursue the possibility of a biotechnology solution before imposing any invasive measure that would have an irreversible effect on the landscape.

Any remediation procedure to be implemented must be carefully researched, well thought out, and implemented with the utmost communication with and concern for those who will be affected by it.

Sincerely,

Stephen J. Giroux

Lenox Dale, MA 01242

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Sunday, January 30, 2011 1:42 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (029134130) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:The Housatonic River byway is a sanctuary for wildlife and people. The proposed method of "clean-up" will make it a symbol of human destruction that is as intolerable as the PCB poisoning in the first place. It will become a national symbol, reminding all of man's lack of stewardship and care for the Earth. Tourists will not be drawn to the area because of its beauty. The "cleanliness" of the water is not going to show, so much as is the wanton destruction of habitat and natural ambiance. With continuing contributions of PCBs from Unkamet Brook, Silver Lake, and storm water from polluted land in Pittsfield, which includes residential areas, we do not believe the proposed "clean-up" will ever make the river truly "safe."

We support a low-impact clean-up solution that does not include extensive dredging or loss of riparian habitat.

03) Name:Paul & Mary Gloger
04) Organization:River view home owners
05) (required) State:MA

| From:Berne

| To: Susan Svirsky/ R1/USEPA/US@EPA

| Cc:
mike ward
| Date:
|11/24/2010 02:58 PM

| Subject:
|Housatonic options

I viewed DVD several times... I have lived very close to housatonic since 1969, near Canoe Meadows... I am familiar with all wildlife, deer, fox, bobcat , etc etc... Please Option 1 is best solution continue monitoring Nat Recoevery , but please don't repeat what done in Phase one, dig up river and make a big pile or 2-3 piles as stated in Berkshire in old landfiles... My family enjoy Canoe Meadows and I have canoed to Lenox 2 times with both my children in the 80s and the river is beautiful and should remain as is and please do not dig up this area and move it to another pile, makes no common sense to me...
Regards,

Bernie Goclowski

GREEN RIVER FLY SHOP
AND
GUIDE SERVICE

Ms. Svirsky;

We are writing to you to express our concern for the Housatonic River clean up project. We are lifelong Berkshire County residents, as well as small business owners. My wife and I run a fly fishing shop and guide service that focuses primarily on the Housatonic River.

We would like for the EPA to consider the ESA (Ecologically Sensitive Approach) for the cleaning of the remainder of the Housatonic River.

The alternative methods available will result in more damage than good to the wildlife, habitat and natural beauty of the river. These alternative methods would also jeopardize our business and recreation as fly fishermen here in Berkshire County.

Sincerely,
Tim and Katy Godwin

Otis, MA 01253

RECEIVED
JAN 13 2011
By

Housatonic Smart Clean Up

Cindy Graber to Jim Murphy 01/28/2011 10:25 PM

I support the low-impact clean up solution for Phase !! of the clean up of the Housatonic River--is is an environmentally sound choice that preserves the beauty of the area, which attracts tourism and therefore supports the local economy, as well as local pride in the environmental surroundings. The area, and the adjacent Norman Rockwell Museum also impacted by the area's beauty, should be protected and preserved.

Cynthia Graber

Holden, MA

January 24, 2011

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky,

I write this letter to express my strong opposition to the clean up and dredging the entire stretch of the Housatonic River that flows from the Pomeroy Ave Bridge to Woods Pond. My concern also extends to the stockpile of extracted PCB laden sediment into a Berkshire County landfill. I would support the removal of PCBs from highly concentrated areas such as Woods Pond.

The clean up and dredging that occurred in the first two miles of the river, substantially altered the eco-systems and scarred the natural beauty of the river. The proposed PCB clean up of the river will destroy the largest wetland area in The Commonwealth west of the Connecticut River. This area acts as a nesting and respite area for thousands of migratory birds. The large population of Kayakers and Canoeists would be forced to abandon this area due to the large, jagged, and obstructing rocks which will destroy the hulls of most watercraft. The fish and wildlife will have no shade or natural obstructions to protect them from the rising river levels and the hot summer sun. The flow of the river, which has taken thousands of years to form, would be lost forever.

Please consider the contents of my letter before you make a decision to destroy one of the true jewels of the Berkshires.

Sincerely,

RECEIVED
JAN 25 2011
By

From:	allen gray
To:	Susan Svirsky
Cc:	Palmieri, Linda
Subject:	Corrective Measures Study
Date:	Sunday, December 12, 2010 10:40:42 AM

Dear Ms. Svirsky,

Thank you for the opportunity to comment on the Housatonic Revised CMS.

My 9-year old granddaughter and her class at Egremont Middle School were recently treated to a presentation from the Mass Div. of Fisheries and Wildlife.

The speaker had the class so excited by the variety of wildlife to be seen on the river that our granddaughter asked to float the river from New Lenox Road down to Woods Pond.

That's pretty remarkable for this young lady.

It struck me that if the "rest of the river" PCB clean-up is conducted in the same devastating manner as the stretch through Pittsfield, there will nothing for her to see - ever, in her lifetime.

The Berkshire Eagle editorial concluding that the river will "eventually heal itself" is self-deluding and dead wrong. One only has to see the horrific new rip-rap channels to understand that.

I am a Life Member of Trout Unlimited and on the Board of the local Taconic Chapter. I don't want to see the river ruined as a fishery for selfish reasons, but I feel most strongly about

what will be left for our children and grand children.

Dredging of the river on a massive scale just doesn't make sense. Neither, of course, does creating new permanent local landfills.

I urge your consideration of the Housatonic Clean River Coalition proposal. The idea of a phased process, allowing for time and new technology to adjust plans for future remediation seems the safest and sanest way forward.

Thank you for your service. You don't have an easy job.

Allen Gray
Pittsfield MA 01201

From: Jon Gray
Sent: Friday, January 14, 2011 11:33 AM
To: svirsky@epa.gov
Cc: Palmieri, Linda
Subject: Housatonic River proposals....Berkshire Cty

Leave the Housatonic River alone..let it heal itself which it will....and while it does it will still be a recreational resource...just not an edible one.

Thinking that PCBs can be "removed" and not spread downstream to start a whole other issue is simply not realistic. The damage is done. Let nature heal it. Intervention to "hasten recovery" is not a good option..not working too well on the Hudson RIver. Man screwed it up ..let nature fix it. ....a much better option

Jonathan Gray
Sales Manager
Ray Murray, Inc

From: Bob Gray
To: Susan Svirsky/R1/USEPA/US@EPA, <lindapalmieri@westonsolutions.com>

Date: Saturday, December 11, 2010 08:03PM
Subject:

History: This message has been forwarded.

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Robert J. Gray, Jr.

Housatonic, MA

From: Guin Griswold <guin@molariinc.com>
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, January 31, 2011 10:00AM
Subject: Housatonic River Clean up

Ms. Svirsky,

Please count me in as one of the citizens interested in using less invasive methods of cleaning up the Housatonic. My family and I fish and kayak the Housatonic regularly and the dredging solution scares me.

Thank you.

Guin Griswold

Customer Service Manager

MOLARI Inc.

80 Center Street

Pittsfield, MA 01201

Ph: 413.499.4546 x 11

Fax: 413.442.6519

guin@molariinc.com

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From: Jes Grover
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, December 13, 2010 10:09PM
Subject: PLEA SE

History: This message has been forwarded.

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

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But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Jessica Grover
(who lives an arms length from the River)

From: Astrid Hagenguth
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Linda Palmieri <Linda.Palmieri@WestonSolutions.com>

Date: Monday, January 31, 2011 12:59PM
Subject: Rest of Housatonic

UNITED SOUTH NEIGHBORS ASSOCIATION
PITTSFIELD TREE WATCH
BICYCLE FRIENDLY COMMUNITY
ELM STREET PARTNERSHIP

Ms. Susan Svirsky
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

In my view, the revised CMS submitted to EPA by GE should be rejected by EPA.

GE has failed to make a serious attempt at solving the problems facing the people and wildlife of Berkshire County because of the PCB contamination GE itself caused. For GE to claim years-long stewardship of the river is offensive.

Instead of focusing on how to reduce PCB levels in and around the river, GE has waged a disinformation campaign to convince us that this is not possible without inflicting great harm to ecosystems.

GE still unbelievably claims that PCBs cause neither cancer nor non-cancer adverse effects in people or in wildlife.

We are told that any PCBs they are made to remove from the river will be placed back in our own floodplains.

None of this indicates an honest attempt to solve the problems society has asked them to solve.

GE's prefers the approach they call Monitored Natural Recovery, counting on natural sedimentation processes to bury PCB on the river bottom, ignoring GE's own accounting that sedimentation rates for most of the river are much less than one inch per year.

According to reputable local environmental groups (BEAT, HRI) more sediment than this can be expected to be disturbed in any given year just by flooding, storms, and aquatic wildlife, thereby resuspending sediments and PCBs. In addition, this approach would just leave the PCBs on the river bottom in the accumulated sediment. If having PCBs in the sediment were acceptable, there would be little need for remediating the river.

PCBs must be responsibly removed, not hidden from view.

GE has proposed placing dredged, contaminated soil in dumps at a number of sites in south county. During and after the cleanup of the first two miles of the river, GE put its hazardous waste site next to a schoolyard. Already, the sites proposed by GE are in the floodplain of the Housatonic River . I have no faith in GE's ability to choose an appropriate site for dumping the contaminated soil that will come from the next phase of the cleanup.
Other appropriate, safe sites must be found.

Alternative solutions to dealing with PCBs should be explored, from such companies as BioTech Restoration (BTR) and GeoSolve, including technologies that may be capable of breaking PCBs down into harmless products. Any dredging should use the least intrusive forms of dredging in order to minimize disruption of natural habitats.

The original CMS submitted by GE in 2008 was returned to GE by EPA with a demand to address over 150 inadequacies and other comments. I believe that the revised CMS still does not adequately address EPA's request and should therefore be rejected for the same reasons the original CMS was rejected.

I'm counting on the EPA to protect the people and wildlife of Berkshire County from GE's easy-come, easy-go proposals.

Thank you for providing this opportunity for public input.

Sincerely,

Astrid Hagenguth
Chairman

Pittsfield, MA 01201

New York, NY 10065

Housatonic River Clearnup

Paul Haklisch to: Jim Murphy 01/28/2011 01:24 PM

Cc: re.christophersperanzo, rep.smittypignatelli, bdowning, plafayette

Mr Murphy, I am writing to you as Chief Executive Officer of the 1Berkshire organization and as a member of the Berkshire community. I am strongly opposed to the EPA's proposed remediation plan for the Housatonic River.

The EPA plan would have destructive long term consequences for the Berkshire communities and their economies. I favor a low impact remediation plan which balances the need to clean the Housatonic while remaining sensitive to the

effects on the local Berkshire communities.

Thank you for your consideration.

Paul Haklisch

Williamstown, MA 01267

From: James Hall
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, January 24, 2011 08:32AM
Subject: GE Housatonic River PCB Clean-up Bio-remediation

Dear Susan, I strongly support the use of the best available bio-remediation technologies to convert the PCB's present in contaminated Housatonic River sediments to non-toxic compounds. Simply removing the contaminated sediments and transferring them to dump sites is an unacceptable solution. It will require long term monitoring and will be prone to breaches and leaks. It is my understanding that there are proven methods that work to break down PCB's and eliminate the toxicity. These should be a required part of the clean-up plan. In the long run, it is the right thing to do. Please don't let GE get away with dumping PCB's again in the Berkshires.

Sincerely, James Hall

Alford, MA 01230

Phase II of the Housatonic River clean Up project

Jim & Deb Hall to: Jim Murphy 02/02/2011 01:56 PM

I believe the low impact solution would help to reduce the PCB's in the river without any major environmental impact on the down stream residents and businesses. It will also help to eliminate any major changes to the river flow and the last remaining dam which is located in South Lee at the Onyx Paper Mill.

We must also make sure that nothing puts Onyx Papers in jeopardy due to the clean up project. We have lost all of the other mills in the town of Lee and we can not do anything to hurt Onyx Papers, it's employees and customers.

James and Debra Hall
Lee, Ma.

November 26.2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. Many options have been proposed for the cleanup of the river.

My wife and I have canoed on the river and we are familiar with it and the terrain all the way to Woods Pond. We agree that we must protect the river and what it means to those who live here. I think it would be best to leave the river and the surrounding areas alone to recover naturally. However, if something must be done it should be unobtrusive..

Please make sure that the answer for the remainder of the Housatonic River is reasonable and beneficial to the people, animals and plants that thrive along its banks.

Sincerely,

Roger W. Hanley

Roger W. Hanley

Pittsfield, MA 01201-8333

Tel.

RECEIVED
NOV 29 2010
By

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Monday, January 24, 2011 10:24 AM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (023102334) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:I want to support a low impact clean up of the Housatonic River that will protect the integrity of the river and preserve it for recreational use, while still meeting human health standards.

03) Name:Marilyn Hansen

05) (required) State:MA

From: "Lois Hartwick"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, January 24, 2011 07:07PM
Subject: Housatonic Clean Up and GE

Dear Susan Svirsky:

I wrote to Ray Kasevich, an environmental scientist/engineer who does clean up projects or in some cases, is a consultant for same in U.S., Canada and elsewhere. He is a friend with a impressive scientific background and education. I asked him what his thoughts were on the cleanup of the Housatonic. Here is his reply below which I will use as 'mine' as well. I would hope he has been consulted though out all this process as we are blessed to have someone of his stature and experience available. I would like this added into the comments from those of us in the Berkshire area who are concerned about the proposed clean up of our River and just about anything GE proposes...

Sincerely
Lois Hartwick
Gt. Barrington, Ma.

Hi Lois,
I feel that alternative in-situ technologies exist that should and must be explored. One example is thermal desorption. Others exist. Tim Gray is a good contact.
Hope you are well.
Best regards,
Ray

Housatonic River Clean-up

Alan Harwood to: Jim Murphy 01/28/2011 04:45 PM

Dear Mr. Murphy,

I spend at least one month every summer in the Berkshires, along with many other Massachusetts and New York residents. As you know, the area is renowned for its natural beauty which these many people find restorative during the summer months. World-famous cultural institutions have been grafted onto this superb natural setting. In fact, the area depends economically to a great extent on the money brought in by the many visitors to the countryside and these institutions during the summer season. To dredge the the lower Massachusetts Housatonic will change the natural habitat and risk reducing the appeal of the area. I therefore urge you to adopt a low-impact plan for the river in Phase II of the clean-up.

Yours sincerely,
Alan Harwood
Professor emeritus
University of Massachusetts Boston

From:	Paula Hatch
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	GE and PCB cleanup
Date:	Thursday, December 09, 2010 10:16:20 AM

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:
I grew up and played along the banks of this beautiful river we call the Housie, and I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.
I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.
I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.
But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.
And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.
Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.
Thank you,
Paula M. Hatch

Great Barrington native

Housatonic River clean up

David & Peggy Heck to Jim Murphy 01/29/2011 10:40 AM

Please do not dredge the Housatonic River in phase 2 of the clean up. Find a low impact solution that will not harm the wildlife area. Thanks, Peggy Heck

Palmieri, Linda

From: Svirsky.Susan@epamail.epa.gov
Sent: Monday, January 10, 2011 11:03 AM
To: Palmieri, Linda
Subject: Fw: Save the Housatonic River!

---- Forwarded by Susan Svirsky/R1/USEPA/US on 01/10/2011 11:01AM ----

To: Susan Svirsky/R1/USEPA/US@EPA
From: < >
Date: 01/09/2011 12:37PM
Subject: Save the Housatonic River!

Susan-
Hello my name is Jason Hektor. I reside in Dalton ,MA.I have utilized the Housatonic River for Fishing , Hunting, Canoeing, and just general nature viewing. I would appreciate a less evasive approach to the Pcb problems in the woods pond basin. My family and I truly enjoy to utilizing this area for outdoor activities. I also will be passing on the solution to use ESA approach to the rivers repairs. Please consider this approach or better solution?

No land fills in Berkshire County!

Jason A. Hektor Contractor
Dalton ,MA
Serving The Berkshire County!

Housatonic, MA

December 13, 2010

To: Susan Svirsky, Environmental Protection Agency Rest of River Project Manager

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

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And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you,

Elaine Helm

John Helm

RECEIVED
DEC 16 2010
By

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Monday, January 24, 2011 8:22 AM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (023082220) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:I support a low-impact clean-up solution that does not include extensive dredging.

03) Name:Heidi Higgins
04) Organization:Legacy Banks
05) (required) State:MA

From:	Louise Hillman
To:	Susan Svirsky
Cc:	Palmieri, Linda
Subject:	Public Comment Re: GE Cleanup of Housatonic River
Date:	Tuesday, December 14, 2010 10:16:38 PM

Dear Ms. Svirsky,

As long-time residents of Housatonic, my husband and I chose to believe General Electric in their claims that the PCBs produced in their Pittsfield plants were safely buried in the silt at the bottom of the Housatonic River. Even when we learned that General Electric had purposely lied about the manufacture and dumping of the PCBs and later had lied again about the cleanup of the river near the plant, had dumped their toxic waste in Pittsfield and poisoned the lives of so many people, somehow we foolishly thought we were safe.

For years we have lived in Housatonic a little removed from the river and raised our daughter. We were thrilled when she and her husband moved back to the area, bought a house only a few minutes away from us right on the river, a perfect place to live and raise their two little boys. Now we are listening to scientific data that the PCBs are not safely sitting in the silt in the bottom of the Housatonic, although the newest General Electric reports again claim that they are. In fact, we are now discovering through our reading of this new information and attending a community information meeting that far from being safely buried, PCBs have been escaping from the bottom of the river and are everywhere, even in the air we breathe.

I understand that you are now collecting public opinion on what should happen to the PCBs that GE has dumped into the Housatonic River. I also understand that it has not been decided whether or not GE will have to dredge, but that if they do, one of the possible dumping sites for the toxic waste may be in Housatonic near Rising Pond, in my children's and grandchildren's front yard. Needless to say, this fills us all with dismay.

In fact, my daughter and son-in-law, like so many others from Pittsfield to Long Island Sound, having put their life's savings into their home are in the planning stages of giving everything up and moving their sons away from the river and its developmental and carcinogenic dangers, even if it means moving in with family members. Our family is lucky in having some options. Obviously, too many people from the Pittsfield area and my daughter's neighbors did not or do not. Should they all be condemned to the uncertainty of their futures and possible illness and death?

Even outside of my disbelief and anger at what General Electric has done to all the families from Pittsfield to who-knows-where, their callousness and lies, I feel that for the sake of the future of the very earth we all share, GE must be made to clean up the mess that they made. This includes dredging (if need be) the PCBs from wherever they may be found and not only to dump them, but to destroy them.

I know that the first attempts to burn the PCBs resulted in the production of dioxin as

a by-product but that there is now the possibility of using a dual chamber burner that would only produce water vapor. If the alternative is waiting ten thousand years for the PCBs to disintegrate, can the EPA in all conscience do anything but force this route?

We were told at the community informational meeting that there is the possibility of using microorganisms to clear out and destroy the PCBs, but that this procedure is still in the experimental phase. This might be a dream, but if it were at all possible to save some of the beauty of the Housatonic River, of course, we would support this action, too.

I imagine that you think that we are setting too high a goal for what we expect the EPA to force General Electric to do in the cleanup of the Housatonic. You have already been bombarded with scientific data from both sides, but this is a forum for public comment, and these are my feelings and opinions on the matter.

Thank you for your consideration.

Sincerely yours,

Louise M. Hillman

December 8, 2010

Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky,

This letter is in regards to the upcoming Rest of the River cleanup of the Housatonic River. I am personally in favor of the ESA (Ecologically Sensitive Approach) cleanup. My concern is that the citizens of Berkshire County in no way can accept any PCB dumps in Massachusetts. We need removal of PCBs, not relocation.

To date, GE has only accomplished one cleanup in Berkshire County. This one cleanup is the Rose site in Lanesboro. In that cleanup, all PCBs that were excavated were incinerated and the soil returned to where it came from. This cleanup was accomplished by Maxymillian Technologies of Pittsfield, MA. With this process, no one's children or grandchildren will every have to worry about PCBs ever again. This process is the only acceptable way to deal with GE's PCBs.

The fact of the matter is that General Electric put this poison into our environment and they need to remove it from our environment preferably through incineration, and if not through transfer to a toxic waste site. The cost of this cleanup should not be a factor for GE as it was not a factor when GE poisoned our environment.

With the ESA approach, my hope is that after dredging Woods Pond, the pond would be monitored and re-dredged in the future as needed.

Lastly, Hill 78 should also be hitting the incinerator to rid Pittsfield of this ridiculous debacle that should never have been included in the Consent Decree!

Philip G. Hiser, Jr.
Lee, MA

RECEIVED
DEC 14 2010
By

From:	Steve Hodgin
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	GE Plans for Housatonic River Cleanup
Date:	Saturday, December 04, 2010 3:08:02 PM

Dear Ms. Svirsky: I am writing to express my dissatisfaction with the proposed GE plans for disposing of the toxic PCB waste from their operations at 3 new landfills in southern Berkshire county. The one I am most familiar with, near Forest Street in Lee, is a wooded area on a steep slope next to a beautiful (and clean as far as I know) stream. I find it hard to believe that the best solution to this problem is to clear cut hundreds of acres of New England forest and deposit the waste next to an uncontaminated body of water. GE has been a poor "corporate citizen" to the residents of this county for a long time now, beginning with their dumping of toxic waste and continuing through the closing of their facilities that employed so many people here. Please try to make sure they do a responsible, high-quality job on this clean up and do not let them cut corners or pretend that the only way to clean up this mess is to create another one.

Sincerely,
Stephen Hodgin
Lee MA 01238

GE & PCBs
Barbara Hollworth
to:
Susan Svirsky
01/13/2011 04:23 PM
Show Details

We live in Tyringham less than 1/2 mile from the PCB dump proposed in Lee. We are also GE stockholders and we would like them to know we prefer not risking our health and property value for an increase in dividends.

Al & Barbara Hollworth

December 15, 2010

Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman St
Pittsfield, MA 01201

Dear Susan,

The purpose of my letter is to address the Revised Corrected Measures Study that GE submitted to you regarding the Housatonic River. I strongly urge you to take the course of Monitored Natural Recovery. Over the past years we have seen a decline in PCBs in the River. Any disruption to the riverbeds and riverbanks will churn up PCBs and will have a significant negative impact on the river itself as well as on the plants and animals in the surrounding area. And without a doubt the people who live along the River and in the nearby communities will face all of the negative impacts that digging up the River will cause.

Please don't force GE to take actions that will destroy our river.

Sincerely,

W. Kent Hudson

RECEIVED
DEC 29 2010
By

From: Elizabeth Hunt
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Sunday, December 12, 2010 05:22PM
Subject: G E

History: This message has been forwarded.

Dear Susan Svirsky,

We are writing to add our voices to those people urging you to reject General Electric's claim that the best approach to dealing with toxic PCBs in the Housatonic River is to simply leave them there. According to GE's line of reasoning the company's tons of dumped and leaked PCBs have been present in the river for thirty or more years and the damage to fish and birds and people living there and nearby has been done and there are no further dangers of health risks to be feared. In other words the damage has been done and there is little to be feared by way of serious additional health risks. Such reasoning ignores the the reasonable assumption of ongoing and continuous damage that leaving the PCBs in the river must cause to human beings and animals in the vicinity of the PCBs dumped in the river .

Rivers are being effectively cleaned throughout the country and GE should be made to undertake an ecologically-responsible cleanup to remove as much as the contamination as possible. GE's proposal to create PCB dumps along the river makes no ecological sense and should be flat out rejected.

We should have a series of pilot projects to see whether any new alternative remedial projects are appropriate to the Rest of River cleanup. And if any dredging is involved in the cleanup, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Thank you.
Sincerely,
Bill and Lisa Hunt

Housatonic, MA 01236

Holly Hunter Family Nurse Practitioner

Dalton, MA 01226

Jan. 20, 2010

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky,

I received an email from a friend that disclosed the plan of the clean up and dredging project of the stretch of the Housatonic River that flows from the Pomeroy Ave Bridge to Woods Pond. My concern also extends to the stockpile of extracted PCB laden sediment into a Berkshire County landfill. I would support the removal of PCBs from highly concentrated areas such as Woods Pond. I oppose the dredging for many reasons. Public obesity is an epidemic in our county. Kayaking and canoeing is one of the exercises I encourage for my patients as the waterway of the Housatonic is just about in everyone's back yard. It encourages activity at no charge. It also improves mental health by decreasing levels of stress, depression, and the risks of many medical conditions. Yes, they can joint a gym but why do so when they can access this activity anytime of day for no charge AND enjoy the bucolic and historic Housatonic River. The river can be accessed by young families that want to hike or walk over bridges to view the natural serene river but the poor asthetics of the planned dredging will discouraging them from doing so. Think of the cessation of the river field trips that children in our community use for science and social studies applications that they will have no memory of. Please consider the true pro's and con's of the river's "clean up" (or "mess up"... depending on how you want to look at it).

The river has a life of its own and nature has its own plan for cleansing itself of the PCB's. The clean up and dredging will upset the PCB'S that are being digested by the river and will carry them downstream contaminating the eco-systems. The proposed PCB clean up of the river will destroy the largest wetland area in The Commonwealth west of the Connecticut River. This area acts as a nesting and respite area for thousands of migratory birds. The large population of Kayakers and Canoeists would be forced to abandon this area due to the large, jagged, and obstructing rocks which will destroy the hulls of most watercraft. The fish and wildlife will have no shade or natural obstructions to protect them from the rising river levels and the hot summer sun. The flow of the river, which has taken thousands of years to form, would be lost forever. It will scar the natural beauty of the river

Please use your position of decision making toward in a positive light and support the preservation of the true jewel of the Berkshires and all that it effects downstream.

Sincerely,

FNP

Holly Hunter FNP

RECEIVED
JAN 21 2011
By

Dear EPA rep: I am writing to urge you to not destroy the Housatonic river by a major dredging program being proposed. I have been Kayaking & fishing these waters for years and have seen the damage done by this total dredging program in the first 2 mile phase. Let the river heal itself. I would be in favor of the ESA approach to just target certain areas. I consider myself an environmentalist but some of these radicals just want to make G.E. pay a lot of money even if it destroys the river as we know it. Please lets just use some common sense.

Sincerely Steve Hersha

Pittsfield Mass.

RECEIVED
JAN 06 2011
By

From: Kirsten Jensen
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Tuesday, December 14, 2010 02:45PM
Subject: Your help is needed!

History: This message has been forwarded.

Dear Susan,

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.
I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.
I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.
And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.
Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.
Kirsten Jensen

From: Ann Jon
To: Palmieri, Linda
Subject: GE & EPA
Date: Thursday, December 09, 2010 1:54:32 PM

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

ann jon

From: "Chris Jones"
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: lindapalmieri@westonsolutions.com

Date: Wednesday, January 05, 2011 07:25AM
Subject: housatonic river

History: This message has been forwarded.

---

my name is christopher jones i am a resident of pittsfield ma and i have been fishing and canoeing the river my whole life. I am writing you this to ask that you consider an ecologically sensitive approach with the " rest of the river" ..please do not destroy the river and the lush vegations that surrounds it.. you do not need to ruin this gem we hold so dear in order to fix it..please don't put the landfill in berkshire county..

sincerely, christopher jones ,

pittsfield ma 01201

From: rkjones
Sent: Monday, January 17, 2011 5:03 PM
To: svirky.susan@epa.gov
Cc: Palmieri, Linda
Subject: Housatonic River clean up(please do not destroy the river)

Dear Susan,
I am a reident of Lee and have lived my whole life with in yards of the river.I regularly hunt and
fish on the river includeing woods pond.I am writeing you to ask that you please do not destroy the river in a attempt to clean it up.Let nature take it course and bury the remaining PCBs in the river.Leave the river as it is in its curret state.

Yours Truly,

Robert T Jones

Lee ma.

From: Ben Kaplan
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Lori Gazzillo <Lori.Gazzillo@LegacyBanks.com>, Peter Lafayette <PLafayette@berkshirebank.com>

Date: Friday, January 28, 2011 02:43PM
Subject: Housatonic River Cleanup

Susan,

As a concerned citizen I'm asking that you don't dredge the river in its next clean-up phase from Pittsfield through Lenox in the manner in which you dredged the river in Southeast Pittsfield. I'm an avid kayaker and destroying the natural beauty from New Lenox Road to Wood's Pond would ruin what is a spectacular Natural Resource for all of Berkshire County and our visitors.

Thank you,

Ben J. Kaplan

Pittsfield, Ma 01201

From: mikaplan
Sent: Thursday, January 27, 2011 8:12 PM
To: Svirsky.Susan@epamail.epa.gov; Palmieri, Linda; kkimmell@state.ma.us; michael.gorski@state.ma.us
Subject: Housatonic cleanup

Ms. Svirsky,

I believe that the revised CMS submitted to EPA by GE is seriously flawed and should be rejected by EPA. GE has failed to make a serious attempt at solving the problems facing the people and wildlife of Berkshire County because of the PCB contamination caused by GE's careless behavior.

Instead of focusing on how to reduce PCB levels in and around the river, GE has focused on waging a campaign to convince the public that such a reduction is not possible without inflicting great harm to ecosystems. GE still unbelievably clings to the contention that PCBs cause neither cancer nor non-cancer adverse effects in people or in wildlife. They tell us that any PCBs they are made to remove from the river will be placed back in our own floodplains. None of this indicates an honest attempt to solve the problems they have been asked to solve by society.

GE's preferred approach is the approach they call Monitored Natural Recovery. This approach counts on natural sedimentation processes to bury PCB on the riverbottom. This ignores the fact that by GE's own accounting, sedimentation rates for most of the river are much less than one inch per year. More sediment than this can be expected to be disturbed in any given year by flooding, storms, and aquatic wildlife, thereby resuspending sediments and PCBs. In addition, this approach would just leave the PCBs on the riverbottom in the accumulated sediment. If having PCBs in the sediment were acceptable, there would be little need for remediating the river. PCBs must be removed, not hidden from view.

GE has proposed placing dredged, contaminated soil in dumps at a number of sites in south county. During and after the cleanup of the first two miles of the river, GE chose as its hazardous waste site a site next to a schoolyard. I have no faith in GE's ability to choose an appropriate site for dumping the contaminated soil that will come from the next phase of the cleanup. Already, the sites proposed by GE are in the floodplain of the Housatonic River.

Alternative solutions to dealing with PCBs should be explored, especially technologies that may be capable of breaking PCBs down into harmless products. Any dredging in the river should use the least intrusive forms of dredging in order to minimize disruption of natural habitats.

The original CMS submitted by GE in 2008 was returned to GE by EPA with a demand to address over 150 inadequacies and other comments. I believe that the revised CMS does not adequately address EPA's request and should therefore be rejected for the same reasons the original CMS

was rejected.

Thank you for providing this opportunity for public input.

Sincerely,

Michael Kaplan

Lenox, MA 01240

From: "Ray Kasevich"
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: <Linda.Palmer@WestonSolutions.com>

Date: Friday, December 10, 2010 05:12PM
Subject: Comme nts

History: This message has been forwarded.

Dear Susan,

I am presently working with the EPA through ERM on developing an EPA report on the technology of Radiofrequency heating of soils and fractured bedrock for in-situ remediation.

I have been been in the environmental remediation business for a number of years using in-situ RF thermal remediation methods. Developing high temperatures in river bottom with RF to simultaneous remove and destroy the PCB molecule is possible but remains to be tested . No dredging is required. The RF tools would be positioned on the river bottom to achieve PCB desorption and potential destruction with RF plasma .

Such an alternative technology approach could be available in the near future for pilot testing to evaluate this approach .

Please consider such possible PCB remediation methods at this critical time.

I would be happy to meet and discuss this technology approach with you and some other alternative technology approaches for PCB cleanup.

Thank you.

Sincerely,

Ray Kasevich

JR Technologies LLC

Great Barrington, MA 01230

From:	Andrew Kawczak
To:	Svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic river remediation comment
Date:	Monday, November 08, 2010 11:07:12 AM

Dear Ms. Susan Svirsky:

I am a resident of Berkshire County and have enjoyed the benefits and beauty of the Housatonic river. I have canoed the river from Coatsville to Woods Pond. I even participated in canoe racing - years ago. I have nothing but respect for the beauty and ecology that river provides. I have worked for GE decades ago however now I am an environmental manager working in NYS. As such, I understand the difficulty of making decisions regarding pollution and waste management. I acknowledge the difficulty in making decisions to dredge or not to dredge the river of PCBs. I am also a wetland scientist so I understand the value of natural bio-systems and wetlands.

-- I **DO** believe the removal of PCBs is important however I **DO NOT** feel anyone should remediate the full length of the river down to Woods Pond. I believe there would just be too much ecological destruction and interuption to wildlife - for a decade or more.

Even though I thought the CMS video distributed via Michael Carroll was overstated propaganda;

I believe Woods Pond should be dredged not once but twice, separated by a 3-year time window. In this way, those semi-mobile PCB laden particles up-gradient of Woods Pond would wash-down (assuming they are mobile-which seems to be the issue) to Woods Pond and be available for re-capture. I firmly believe the process of re-dredging a fully accesible Woods Pond by barge/piers, would allow wildlife and ecosystems (above the pond) to survive and make a natural recovery. This repetitive dredging at WOods Pond would capture PCB laden particles at the pond/dam - and remove the hazards.

My educated guess is the process would only take six years (total) and save nature in the upper reaches of the river -- the pain of invasive surgery and amputation of vital (ecological) organs.

thank you,

Andrew Kawczak
North Adams, MA 01247

From: Linda Kaye-Moses
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Rep.ChristopherSperanzo@Hou.State.MA.US, Rep.SmittyPignatelli@hou.state.ma.us, bdowning@bendowning.org

---

Date: Monday, January 24, 2011 11:55AM
Subject: Our beautiful Housatonic River

Hello,

As a longterm resident of Berkshire County, I have been in love with our Housatonic River for many years, even when it was an unnatural colour and smelled like a cattle yard. It's meandering path through the county, it's banks inhabited by a wide range of wildlife, its reflection of the clear blue sky above, all combine to make it one of the most beautiful aspects of our county.

Repairing the damage done by pcb pollution needs to be a reparation governed by the wisdom to truly mend the river and its environs. Adding dumping grounds of pcb laden silt to our county is not a wise choice. There are true remediation processes that destroy the pcbs, eliminating them from our environment without damaging neighbouring villages and towns.

In your role as 'overseer' of our country and our county, please consider complete elimination of pcbs as opposed to inadequate storage that would leave a toxic legacy for our descendants.

Thanks,
Linda Kaye-Moses

Dalton, MA 01226

housatonic river clean-up

eikeeler to Jim Murphy 01/30/2011 05:15 PM

mr.murphy,
I urge you to reconsider the phase II plans for clean-up of the housatonic river. I would hope that the project could be done with low impact to this area and its wildlife and without extensive dredging. this area is important to the residents, as well as to the many tourists who visit the area yearly.
thank you for your consideration of this matter
eileen keeler
downers grove, IL

From:	Linda Kellogg
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic River clean-up
Date:	Sunday, November 28, 2010 7:05:28 PM

I have viewed the DVD The Housatonic: The Fate of a River. I feel strongly that the choice Monitored Natural Recovery is the best environmental solution.

Linda L. Kellogg

From:	Linda Kellogg
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic River clean-up
Date:	Sunday, November 28, 2010 7:01:17 PM

I have viewed the DVD The Housatonic: The fate of a River. I feel that the Monitored Natural Recovery choice is the best solution.

Terry G Kellogg

From: "Joanne Kelly"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Sunday, December 12, 2010 08:29AM
Subject: Housatoni c River Clean-up

History: This message has been forwarded.

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE™s claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Joanne M Kelly

South Lee MA 01260-0143

From: Kathy Kessler
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Linda.Palmieri@WestonSolutions.com

Date: Sunday, December 12, 2010 10:54AM
Subject: GE Corrective Measures Comment

History: This message has been forwarded.

Dear Susan:

This community has had enough. It now seems as if the last two decades' worth of information, ideas, and concerns have been ignored. Please do not let GE pretend that there are no viable answers and use this as an excuse to push yet another cheap "fix" that they and everyone else knows is utterly unacceptable onto this community. We have moved far beyond resorting to or accepting such tactics. Our commitment to finding and piloting environmentally safe but effective alternatives has been reaffirmed over and over again. Yet these proposals have repeatedly been dismissed.

Regarding General Electric's 2010 Corrective Measures Study, its inadequacies have been made clear on numerous occasions using objective, scientifically based, and carefully reasoned arguments that are now all too familiar. The EPA must use the power of its authority to make GE take full responsibility for all its PCB-contamination of the Housatonic River and undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

We reject the use of scare tactics to build consensus for doing nothing. I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country. We can do it too.

I also urge you to reject out of hand any GE plan to create PCB dumps in or alongside the Rest of the River. This proposal contradicts the argument that the river is healthy, and it is a cynical approach that writes the Housatonic off as a pre-existing dumping ground. GE has already taken the quick and dirty route by creating two large-scale dumps in our back yard, which we will live with in perpetuity. Allowing the river to continue to be an extension of that is not acceptable.

But most importantly I urge the EPA to actively pursue promising alternative remedial technologies – technologies that effectively destroy PCBs, many of which have already been proposed and studied. We owe it to future generations to have a series of pilot projects on the most viable methods, to determine which of these new technologies, perhaps in combination, would be most suitable to the Rest of River cleanup. Neither a quick fix nor a slash-and-burn approach are appropriate when we know many other flexible options are available. Please consider the cost of intelligence versus the cost of ignorance, both in the short and long term. GE has already imposed their legacy upon us. This is the final opportunity to replace their legacy with one we can live with in good conscience.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Only an intelligent, scientifically informed, and comprehensive cleanup will restore the Housatonic River and return to the people and the wildlife of Berkshire County the healthy River they deserve.

Thank you.

Kathy Kessler

Great Barrington, MA

From: Henry A. Kirchdorfer III
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: Housatonic River Clean Up
Date: Wednesday, December 08, 2010 7:53:19 AM

Dear Ms. Svirsky;

I have lived along the Housatonic River now for more than twenty years. And grew up in this area. I use the river frequent, and encourage others to do so, taking advantage of its natural beauty. In short the Housatonic river is a very important natural resource for my family, my friends and myself.

It has become increasing clearer in my life , as we pass through this journey of life on this planet that we as a species are destroying this precious place we call planet earth. Most unfortunately there are people out there that place monetary gain over protecting the environment. And this struggle has been going on for way to long! The environmental destruction needs to stop!

That is why we the people created the agency E.P.A.. The agency that you represent. There must be an inner reason why you chose to work at the E.P.A. And you as a partnered citizen on this planet has the power to make a difference. Therefore I strongly encourage you to force G.E. to do as the E.P.A. and we the people have created your agency to do, to clean up their mess. They created this mess in the name of Corporate profits and will continue to do so if you do not send a strong message, in forcing them to clean up their mess. The eco system will return after the initial destruction happens. And will return healthier for not only the plants and animals, but for future generations to come that love and respect the Housatonic River as I and many other do. I know that you will make the right decision. Just look into your inner soul and ask yourself, Why you work at the E.P.A.? Thank you for your consideration on this most very important matter.

Thank You

Henry A. Kirchdorfer III Builder/ Contractor
Stockbridge, Mass. 01262

11/5/2010

Dear Ms Svirsky,

I have long believed that remediation by soil removal in the Housatonic River and its flood plain below Pittsfield is ill advised. There seems to me to be a pretty good chance of doing more harm than good. The section already done in Pittsfield may have had to be done, but the resultant stretch of river won't support much life of any kind for quite a while, which , of course, begs the question of what it supported before the cleanup. At least it is less ugly.

I had been considering a letter to the Berkshire Eagle on the subject, but never got motivated enough to do so. After viewing the film, produced by GE, I feel obliged to express my view. I am an avid outdoorsman and believe strongly in protection of the environment. The wild life along the river seems to me to be thriving, not that fishermen are necessarily qualified to make a scientific evaluation, but are certainly able to make a judgement based on experience along the Housatonic and other streams.

The river and flood plain don't seem to me to be hurting anyone or any thing in their present condition. As carefully as remediation is done, there is no way to avoid damage to it, the environs, wildlife and fauna. So, my belief is that sleeping dogs should be allowed to lie. Living in Pittsfield, listening to folks and reading articles and letters in the Eagle makes me wonder if a lot of the push to remediate is anger at GE and a desire to punish GE for "deserting Pittsfield". I am not referring to the EPA in this regard.

In my opinion, a great solution would be to take the money that remediation would require and use it to acquire more land on both sides of the river to add protected wild life areas as well as to improve public access to the river. Sounds like Win-Win to me. GE makes a public-spirited contribution and a great natural resource, the river is left to natures' own devices.

Very truly yours,

Karl Knutson

Karl Knutson

Pittsfield, MA, 01201
Phone

cc: M.T. Carroll

RECEIVED
NOV 08 2010
By

From: Cathy Kogan
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: [BULK] Fwd: EPA Rest of the RIVER PROJECT
Date: Monday, December 13, 2010 9:48:40 PM
Importance: Low

Begin forwarded message:

From: Cathy Kogan
Date: December 12, 2010 5:47:12 PM EST
To: svirsky.susan@epa.gov
Cc: Linda.Palmieri@WesternSolutions.com
Subject: Re: EPA Rest of the RIVER PROJECT

December 12, 2010

Dear Susan Svirsky: Environmental Protection Agency Rest of River Project Manager:

I have lived and worked in the Berkshires for the past 40 years and raised a son here as well. I am writing in regards to the General Electric 2010 Corrective Measures Study. I have read the extremely lengthy GE report and find it is inadequate in a number of ways. It is crucial that GE take full responsibility for ALL its PCB-contamination of our River-the Housatonic. The clean-up should be done in an environmentally-sound approach to remove as much of the contamination as is humanly possible. It is just not acceptable to assert that the river is a healthy ecosystem. Sadly, the fish and wildlife of the Housatonic have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the Housatonic River of PCB's will destroy the Housatonic. I have learned that rivers are being effectively cleaned throughout United States.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield There are existing PCB dumps in our country.

But most importantly I implore the EPA to actively pursue a range of alternative remedial technologies-technologies that may effectively destroy PCBs. We deserve to have series of pilot projects to see whether any of these new technologies are appropriate to the REST of River cleanup.

If the EPA chooses a cleanup program that involves dredging, I urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an opertion.

Lastly, only a comprehensive cleanup will restore the Housatonic River

and provide not only the people but the wildlife of Berkshire County the River we deserve.

Thank you,

Cathy S. Kogan
Great Barrington, MA 01230

LAW OFFICES OF ALEXANDER A. KOLBEN
425 Riverside Drive New York New York 10025
(212) 222-7893 Fax: (212)901-1941 e-mail: akolben@kolben.net

December 18, 2010

Ms. Susan Svirsky
United States Environmental Protection Agency
Region 1
5 Post Office Square, Suite 100
Boston, Ma 02109-3912

Re: Proposed PCB Toxic Dump Site at Forest Street, Lee MA

Dear Ms. Svirsky:

The point of this letter is to protest most vehemently the proposal to have GE use the above referenced site to dispose of the PCB which they will be dredging from the Housatonic River.

The site itself is in the watershed of the Housatonic River and abuts the brook running alongside Forest Street which drains Goose Pond.

Although I am a resident of New York City, I maintain a vacation home on Stonebridge Way which leads off of the extension of Forest Street so my concern is more than academic.

Aside from the possibility of toxic run-off, please note that Forest Street is a narrow street and is in an unusually bad state of affairs–potholes abound. It is hard to imagine how trucks full of contaminated mud will fare climbing up Forest Street.

In all fairness, I have not been given a specific plat showing the exact location of the proposed dump site and I would appreciate obtaining the same from whomever has such a plat available or being directed to a source of the same.

Thank you for your consideration of this matter.

Alexander A. Kolben

river clean up

gail to Jim Murphy 01/21/2011 08:46 PM

Please know that I am in support of a low-impact clean-up solution that does not include extensive dredging. Clean rivers are vital to the health and beauty of the Berkshires.

Gail Sellers

Gail Kolis Sellers

From: Annette Kramek
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: "Christopher.Speranzo@mahouse.gov" <Christopher.Speranzo@mahouse.gov>, "rep.smitty@mahouse.gov" <rep.smitty@mahouse.gov>, "bdowning@bendowning.org" <bdowning@bendowning.org>

Date: Monday, January 24, 2011 07:19PM
Subject: Housatonic Clean Up Phase II

To the attention of:

Susan Svirsky, EPA Rest of River Project Manager

Dear Ms Svirsky

Phase II of the Housatonic River flows through wildlife and residential areas. Extensive dredging would devastate the River, the Berkshire County economy and quality of life for decades, if not forever. We cannot allow this to happen. It is important that we advocate for a low-impact solution that still meets the EPA human health standards. Berkshire residents have an opportunity to make a difference on a very important matter affecting our entire community. I want to be one of the voices in this community that asks that the choices made are the correct ones, ones that protect us from:

-The radical dredging approach to the clean-up that would require the creation of permanent dumpsites located within Berkshire County to hold the contaminated soil removed from the river.

-PCB levels: Even after a large-scale dredging project that takes years to complete, PCB levels in fish would remain above the levels EPA considers safe for unrestricted human consumption.

-Damage to or wildlife and natural habitats: This part of the River is a natural untouched forested and wetlands area, abound with wildlife and recreational activities. This portion of the river flows through nature preserves and important cultural resources, which are critical components of the Berkshire economy.

The only Smart solution for clean-up is a Low-Impact Approach that will meet EPA human health standards while protecting the existing ecological and recreational resources of this portion of the river. It will disrupt less of the river and limit the impact on business and tourism during the clean-up process. This plan will protect the integrity of the river and the important role that it plays in the Berkshire County economy.

Thank you.

Sincerely,

Annette

Ancient Language Collection

Pittsfield, MA 01201

From: Betty Kramer
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Saturday, December 04, 2010 01:31PM
Subject: Housatoni c clean-up

History: This message has been forwarded.

Dear Ms. Svirsky,

I urge you to reject ConEd's proposal for dealing with the damage the company has inflicted on the Housatonic. It is abhorrent to the communities involved because of its shocking solution to contaminated waste storage as well as numerous other shortcomings. Won't you consider instead the more modest incremental approach suggested by many local environmental groups?

Yours sincerely,
Elizabeth M. Kramer, a resident of Tyringham, Ma.
-
Betty Kramer

From: "Carl Kronberg"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Tuesday, January 25, 2011 10:47PM
Subject: Housatonic River Clean Up Clean Up Comment Period

Dear Ms. Svirsky,

Again thank you and your staff for extending the comment period on GE's proposal for further removal of PCB's and the restoration of the Housatonic

River. I would like to correct a mistake/typo I made on the comment I sent by e-mail January 23,2011. The third sentence should read ; Based on the mission of the EPA to execute the Clean Water Act and the understanding that the Housatonic River has a status similar to a Super Site, **EPA** has chosen, in part because of US Court decrees, up to this period to work with GE to remove PCB's from the Housatonic River.

Again thank you, Signed, Carl Kronberg, President, Taconic Chapter of Trout Unlimited.

From: "Carl Kronberg"
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: "'Carl Kronberg'"

Date: Sunday, January 23, 2011 01:15PM
Subject: Housatonic River Clean Up Comment Period

Dear Ms .Svirsky,

Thank you and your staff for extending the comment period on GE's proposals for further removal of PCB's and restoration of the Housatonic River. I would like to take this opportunity to reiterate the position we have taken in the past based on Trout Unlimited's commitment to protect, preserve, and enhance cold water fisheries and their environment. Based on the mission of the EPA to execute the Clean Water Act and the understanding that the Housatonic River has a status similar to a Super Fund Site, TU has chosen, in part because of US Court decrees, up to this period to work with GE to remove PCB's from the Housatonic River. In going forward with the clean up in what has been called the 'Rest of The River', ***any clean up of PCBs should include a specific program for the restoration of the Housatonic River***. ***The restoration should be integral to the clean up process and not an add- on program.*** Many of our members were very disappointed and discouraged by what they saw in the restoration of the first two miles of the river that went through Pittsfield. Signed, Carl Kronberg, President, Taconic Chapter of TU

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Saturday, January 22, 2011 10:16 AM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (021101617) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:I am writing to voice my opposition to the EPA recommending any extensive dredging measures to clean up the rest of the Housatonic River. Many of us use that portion of the river for recreational purposes and do not want it destoyed and made unusable in the name of cleaning it up.Thank you.

03) Name:Peter Lafayette
04) Organization:Berkshire Bank Foundation
05) (required) State:MA

From: jannlarsen
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: GE Housatonic River PCB Clean Up
Date: Friday, December 03, 2010 9:27:51 AM

PCBs must be removed from the Housatonic River. GE created this public health disaster and must be held accountable for cleaning up the mess they profited from. However, I do not believe that creating permanent toxic waste dumps in the Berkshires is the solution. I am especially concerned with the proposed site off Forest Street in Lee. I am familiar with this site. It is located on the side of a steep slope that drains into the Housatonic watershed. It does not make sense to dredge the PCBs from the river and place them in a site where they will wash back down into the river. I don't see how they can be safely contained for perpetuity in this location.

I know there are other alternatives for neutralizing or distroying the PCBs sited in the study that must be considered. I believe GE is setting out red herrings to panic people in order to get off the hook for the clean up. Please do not allow this to happen.

Sincerely,

JoAnne Larsen
Lee, MA 01238

From: dlattizzori
Sent: Wednesday, January 05, 2011 3:18 PM
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: Housatonic River Clean-Up

I am a 63 year old retiree and 3rd generation(two more generations have followed me so now there have been five generations) resident of Pittsfield. I have lived along the South West Branch of the Housatonic River my whole life. My father received a personal visit and award back in the 1960's from then Mass. Gov.Volpe for his many years of cleaning up the South West Branch and his stewardship of that tributary. I am an outdoorsman and conservationist and have hunted,fished and canoed in and near the main branch of the Housatonic and Woods Pond also. The area at issue here is perhaps one of the most beautiful and ecologically diverse in the state. In making your decision on how to proceed with the PCB cleanup please don't destroy this area which can never be replaced. What you have done in terms of remediation so far within Pittsfield looks to me like overkill. Maybe you got rid of the PCB's but what's left looks unnatural,sterile and void of wildlife. My feel has always been let the PCB's stay where they are, buried in the river bottom where they pose no threat to anyone. To dredge all the river,cut forests and destroy wetlands as proposed is a fix that is worse than the problem, never mind the expense. I prefer The Monitored Natural Recovery option as the best choice. If, because of human health concerns that approach doesn't solve the problem then the next best choice would be the Ecologically Sensitive Approach or ESA which has minimal damage and environmental impact. The option that we should never adopt is the SED/FP3 approach. That is pure overkill and will destroy this area for decades to come and totally uneccessary. Thank you for your time and cosideration.

Sincerly,

Dennis Lattizzori

Pittsfield, Ma. 01201

From:	F. Michael Laundry
To:	Svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	housatonic options
Date:	Wednesday, December 08, 2010 2:34:20 PM

Susan and Linda,

I am dropping you this email to let you know that I think the best option for the Housatonic River is Monitored Natural Recovery.

It would be worse to choose either of the other two options as it would only stir up the river and cause habitat problems for the animals that live there and possibly loss of some species. It would also curtail the use of the river for recreational use for many years.

Rivers and streams naturally clean themselves as long as the pollutants are stopped from going into them. I feel that GE is doing all it can to prevent PCB's from entering the river and has done a great job with the cleanup they have completed.

Thanks Sincerely,
Francis Laundry

Steve Laurin

Pittsfield, MA 01201
1-24-2011

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky,

I write this letter to express my strong opposition to the clean up and dredging the entire stretch of the Housatonic River that flows from the Pomeroy Ave Bridge to Woods Pond. My concern also extends to the stockpile of extracted PCB laden sediment into a Berkshire County landfill. I would support the removal of PCBs from highly concentrated areas such as Woods Pond.

The clean up and dredging that occurred in the first two miles of the river, substantially altered the eco-systems and scarred the natural beauty of the river. The proposed PCB clean up of the river will destroy the largest wetland area in The Commonwealth west of the Connecticut River. This area acts as a nesting and respite area for thousands of migratory birds. The large population of Kayakers and Canoeists would be forced to abandon this area due to the large, jagged, and obstructing rocks which will destroy the hulls of most watercraft. The fish and wildlife will have no shade or natural obstructions to protect them from the rising river levels and the hot summer sun. The flow of the river, which has taken thousands of years to form, would be lost forever.

Please consider the contents of my letter before you make a decision to destroy one of the true jewels of the Berkshires.

Sincerely,

Steve Laurin
Teacher/Conservationist/Sportsman

RECEIVED
JAN 25 2011
By

DATE: 11-23-2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

I am writing to comment on General Electric's Revised Corrective Measures Study which was submitted to you for review in October. Over the next few months, EPA will consider various options for cleaning up the rest of the Housatonic River. As a resident of , I urge you to protect the natural beauty and ecology of our River. There needs to be a reasonable, common sense approach to how that is done.

One of the choices is the Ecologically Sensitive Approach (ESA). I urge you to adopt this approach that will target areas of the riverbed, riverbank, forest and wetlands and Woods Pond. The ESA will make the river cleaner but will not destroy it in the process.

Please ensure that the residents of Berkshire County have a cleaner river that retains its scenic beauty.

Sincerely, Louis R. Lussier

RECEIVED
NOV 24 2010
By

DATE: 11-23-2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. Many options have been proposed for the cleanup of the River.

I fear that many of the proposed "remedies" will not be a benefit to the people of South Berkshire County or to the River itself. We must protect the River and what it means to those of us who live here and to those who come to the area to enjoy what the Housatonic River and the abutting communities have to offer. I think that it would be best to leave the River alone to recover naturally. However, if something must be done, then let it be a reasonable middle ground. The study that GE submitted includes the Ecologically Sensitive Approach. That less damaging and targeted approach to cleanup is best for Berkshire County.

Please make sure that the answer for the River is reasonable and beneficial to the people, animals and plants that already thrive along its banks.

Sincerely, Louis R. Lausier

RECEIVED
NOV 24 2010
By

DATE: 11-23-2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. As a resident of , I urge you to take the course of Monitored Natural Recovery. Over the past years, we have seen less and less PCBs in the River. Any disruption to the riverbed and riverbanks will churn up PCBs and will have a significant negative impact on the river itself as well as on the plants and animals along its banks. And without a doubt the people who live along the River and in the nearby communities will face all of the negative impacts that digging up the River will cause.

Please do not force GE to take actions that will destroy our river.

Sincerely, Louis R. Lussier

RECEIVED
NOV 24 2010
By

public comment on Housatonic River Phase II cleanup

Sheryl Lechner to Jim Murphy 01/30/2011 02:01 PM

Dear Mr. Murphy,

I would like to express my support for a low-impact cleanup solution on Phase II of the Housatonic River cleanup project. While I believe it is critical that the cleanup happen, and that the water quality meet all appropriate EPA standards for ensuring health for both people, animals and the environment, I also believe this project must be conducted in a way that will not cause additional environmental damage.

I urge the EPA to recommend a Housatonic River Phase II cleanup process that does not include extensive dredging, as that would be too damaging for this portion of the river, which runs through both residential and environmentally-sensitive areas.

Thank you for your consideration.

Sheryl Lechner

Sheffield, MA 01257

RECEIVED
NOV 16 2010
By

Nov. 2010

Dear Ms. Swirsky,

Thank you for the effort it must take, to handle such an enormous task.

Sincerely
Paula Legault

Clean Up

Ruthe L'Esperance to: Jim Murphy 01/29/2011 08:17 AM

Dear Mr. Murphy,

Please know that in regards to the clean-up of the Housatonic River, I support the Norman Rockwell Museum, 1 Berkshire and the Smart Clean-Up Coalition in advocating for a low-impact solution that still meets EPA's human health standards and will not damage the environment further in the process. Please consider the impact carefully before you make your decision.

Thank you.

Sincerely,

Ruthe L'Esperance, Ed.D.

From: Mary Leinsdorf
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Wednesday, January 26, 2011 04:39PM
Subject: General Electric 1020 Corrective Measures Study of Housatonic River

Dear Ms. Svirsky:

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. That you have the sense of responsibility and guts to make sure that GE be held accountable for its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is humanly possible is truly impressive and an inspiration. **We are counting on you.** There is data within GE's multiple studies showing that the river is not a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks. These people are neither wealthy nor powerful but their health has been harmed and the value of their most important investment, their homes, has been dramatically impacted for the worse.

I urge you to **reject** GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country. Make the Housatonic be one of these rivers and a its clean-up a credit to GE.

I also urge you to **reject** any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. These two are in addition to existing PCB dumps in the nation.

Most importantly, I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.Here is the link to the website for the Biotech company that has been developing biological ways to break down PCBs http://www.geosolve-inc.com/biotech.html.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation. Here is the link to the website for an alternative to dangerous dredging

http://www.genesisfluidsolutions.com/.

Only a comprehensive cleanup will restore the Housatonic River providing the people and the wildlife of Berkshire County the River they deserve.

Thank you.

Mary I. Leinsdorf

GARY R. LEVANTE

January 14, 2011

Mr. Jim Murphy
Community Involvement Coordinator
EPA New England, Region 1
5 Post Office Square – Ste 100
Boston, MA 02109-3912

Dear Mr. Murphy,

The Housatonic River has been a vital part of our communities for hundreds of years. Using a targeted low impact approach to remove PCBs will protect our community members' health, make the river safer for recreation, and preserve the natural habitat of the many animals that call the river home.

This portion of the river is very unique and largely rests in a natural untouched forested and wetlands area, abounding with wildlife and recreational activities. This portion of the river flows through nature preserves and important cultural resources that are critical components of the Berkshire economy.

Radical widespread dredging would destroy this natural environment; add access roads, staging areas, and permanent dump sites that would further destroy an otherwise untouched watershed.

Even after widespread dredging that would take years, the PCB levels in fish would still remain above the levels the EPA considers safe for human consumption.

I vehemently oppose any such dredging that would be detrimental to our environment and economy and urge you to consider a low impact approach that will meet EPA human health standards while protecting the existing ecological and recreational resources of this portion of the river, while limiting the impact on business and tourism during the clean-up process. A low-impact clean-up plan will protect the integrity of the river as well as the important role that it plays in the Berkshire County economy.

Sincerely,

Gary R. Levante

PITTSFIELD MASSACHUSETTS 01201

From: penelope lord
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: Rest of River CMS
Date: Friday, December 03, 2010 12:11:07 PM

Dear Susan Svirsky,

I understand that one of GE's proposals for cleaning the rest of the Housatonic River of PCBs is to dredge upper parts of the Housatonic and to then deposit the contaminated riverbottom sludge in cement storage containers in various locations including Lee, Lenox, and Rising Pond in Housatonic.

While I fully support the need to clean the Housatonic of PCBs, I cannot object strongly enough to a) the concept of dredging, and b) to storing them again in other areas of the river. Not only is this idea totally disruptive to and destructive of the ecosystems in and along the river, it is at best only a temporary solution, as there is nothing to my knowledge that will prevent the storage containers from eventually deteriorating and once again spilling their deadly contents into the river.

I understand that there are new biological and far less destructive technologies that have been developed and used very successfully in Europe, and, I believe, at a site in California, including one being produced by a U.S. company called Biotechrestorations. Here is a link to their website: http://www.biotechrestorations.com

I strongly urge that the EPA go to this site and consider their methods as a viable and infinitely preferable alternative to dredging and containment within the Housatonic and/or shipping to other parts of the country, which is a solution also of only limited time value and equally hazardous to those who work bring about the shipping as well as its long-term impact on the site where it is buried.

Thank you for your consideration.

Sincerely,

Penelope Lord

From: "penelope lord" _____
To: <svirsky.susan@epa.gov>
Cc: <Linda.Palmieri@WestonSolutions.com>
Subject: Rest of River CMS
Date: Thursday, December 02, 2010 4:08 PM

From: Kris Mackey
To: svirsky.susan@epa.gov; Palmieri, Linda
Subject: PCB Cleanup of Housatonic River
Date: Tuesday, December 21, 2010 5:52:33 PM

Dear Mesdames:

Pursuant to a letter from Berkshire County League of Sportsmen, I would like to enter for your consideration the suggestion that the any PCB removal/encapsulating/cleanup of the Housatonic River be done in such a fashion that wildlife, river banks, river backwaters, and recreational use of the Housatonic be impacted to a strict minimum; minimal disturbance and dredging; that there be no "PCB dump sites" in Berkshire County - as was shamefully agreed to in Pittsfield right next to an elementary school and a neighborhood, and that refuse be transported out of the state to designated sites, such as was and is required by the New York State cleanup. Big piles of dirt along the river is not a great idea from a visual standpoint for tourists - "not to worry; just a huge pile of PCB's which used to be in the river over there". I am in favor of letting the river filter itself and settle to the river bottom as much of the PCB's as possible, rather than stir them up into the river, as happened in New York. Also, whatever encapsulation is possible is a reasonable goal. I personally am not convinced that PCB's are toxic. Ever go fishing in the Housatonic? Wonderful huge pike and no dead fish floating about. Beautiful birds. No dead birds floating in the river. I even went swimming in the Housatonic a few years ago and canoe there often. Still alive. Best to you all in the river clean-up.

Kris Mackey
Pittsfield, MA 01201

From: "Wendy Mackey"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Sunday, December 12, 2010 09:15AM
Subject: Housatoni c River

History: This message has been forwarded.

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

Thank you for helping the Housatonic River. It needs more help now.

I urge you to reject GE™s claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.
But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.
And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Wendy Mackey
Richmond,MA

From: "Franki Mahoney"
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: <Linda.palmier@WestonSolutions.com>

Date: Wednesday, January 12, 2011 12:10PM
Subject: Housat onic

I am a resident of Lenox, Mass. my husband and I used woods pond for fishing, kayaking, walking, and enjoying nature. We especially enjoy the spring when you get to see all types for baby wild life, my favorite are the baby ducks. I am writing because I saw a presentation of what will happen to this beautiful area, if GE and the EPA continue their approach of a clean river. Please do not destroy
ours, others, and the wild life that flourish in this area.

I do feel that the Town of Lenox and other Towns be awarded some type of monetary compensation for the damage GE has put upon us.

I feel the land fill should go to an area that is closer to the persons who caused this problem.

Thank you
Franki and Paul Mahoney

Lenox, Ma 01240

From: R.J.Malumphy
Sent: Sunday, January 09, 2011 9:23 AM
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: Housatonic River

Hello, I am a resident of Lee Massachusetts and enjoy hunting, fishing and boating on the Housatonic river.I am asking that you support the ESA approach to the PCB cleanup as opposed to the other alternatives so that we may continue to enjoy the beauty of this wonderful natural resource for generations to come. Please don't put a toxic landfill in Berkshire county cleaning up G.E's problem.

Sincerely,
Robert J.Malumphy

From: Gmanarchik
Sent: Wednesday, January 05, 2011 9:28 AM
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: Housatonic cleanup

I am a resident of Pittsfield who has used this part of the river for canoeing and fishing and would hate to see an extensive cleanup of the river. I am in favor of the ESA approach.

George Manarchik

Pittsfield, Ma.

From:	Thomas D. Marini
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	GE proposal for "cleanup" of the rest of the Housatonic River (their 2010 Corrective Measures Study)
Date:	Thursday, December 16, 2010 11:50:13 AM
Importance:	High

Dear Ms. Svirsky and Ms. Palmieri:
This is in regard to the General Electric proposal for 'cleanup' of the rest of the Housatonic River (their 2010 Corrective Measures Study). Their proposal is flawed ineffective and will do more harm to the river. The river is not a health ecosystem. FAR FROM IT. I urge you to reject any GE plan to create more PCB dumps alongside the rest of the river. God know we have enough already. Judging by what MaxMillion Corp did to the river near Pittsfield this is what will happen. MaxMillion is a subsidiary of General Electric. I have seen pictures of the river in that area when it was drained. THEY PUT PIPES/CONTUETS IN THE RIVER BED! That is not the way to revive our river!! There are alternative remedial technologies that can effectively destroy PCBs. We need to have a series of pilot projects to see if these technologies are appropriate to cleanup. The cleanup of the rest of the river should be taken completely out of the hands of General Electric. The only thing they have to do is PAY FOR WHATEVER NEEDS TO BE DONE and independent environmental scientists should determine what needs to be done. Professors/scientists from a university that has a recognized environmental sciences college should be hired to study the river and submit suggestions. Or a recognized environmental sciences organization or institute. General Electric destroyed our river. All they need to do is PAY FOR WHATEVER NEEDS TO BE DONE to get THEIR PCB's OUT OF OUR RIVER. We the people who live along the river deserve a comprehensive cleanup not to mention the wildlife along the river

Regards,

THOMAS MARINI
Pittsfield, MA 01201

Housatonic river clean-up

marone5 to: Jim Murphy 01/28/2011 04:40 PM

Why we even need to write to advocate a low impact clean-up is beyond me. It seems to me that protecting the environment is the reason for your agency and I urge you to consider the plan that does the least damage to the surrounding environs when cleaning up the Housatonic.

Thank you.

Kris Marone, EdD
Cheshire, MA

=

From: Al Maynes
To: Susan Svirsky/R1/USEPA/US@EPA, <linda.palmieri@westonsolutions.com>

Date: Wednesday, January 26, 2011 03:31PM
Subject: FW: Housatonic River Clean Up

From: acm1
To: svirsky.susan@epa.com; lindapalmieri@westonsolutions.com
Subject: Housatonic River Clean Up
Date: Wed, 26 Jan 2011 20:25:57 +0000

Good afternoon:

The clean up of the Housatonic River is a very polarizing subject. Everyone knows the river and surrounding lands need to be cleaned of PCB's, the big question is how.

The clean up methods that have already taken place should not be used below where they have stopped. This destruction of wildlife habitat, river bottom, and the dumping of contaminated soil in large piles MUST change. I understand that no one solution will be acceptable to everyone, but I believe that the "old way" is acceptable the the very least number of people. Other methods NEED to be examined, and tried. I understand that there is a bacteria that consumes these chemicals. If this is true then this method needs to be looked at before the the areas in and along the river are destroyed trying to save them from this pollution.

There is enough destruction of wildlife habitat going on WITHOUT causing more in trying to "save" it. There is no way to get to the areas that are listed for "clean up" without destroying other areas and causing habitat loss. This, to me, is not acceptable.
Other methods MUST be tried, and used if found successful.

I noticed, during the clean up that has already taken place, that when an area was completed, it was basically sterile, no anything in and around it for quite a while. The loss of the mature trees, structure in and on the river bottom, and the removing and replacing of the riverbanks caused wildlife to loose nesting, breeding, and living areas. Also, many wild, native plant species were removed and/or destroyed replacing them with something else entirely. This caused more changes in the habitat and wildlife in these areas. Some, to this day have not returned.

Can PCB's be "washed" from the soil? If so, perhaps a series of "wells" can be put in, pumped out of the collected water every so often until the area is "clean" from the PCB's. This would cause little in way of destruction compared with the "old" method. Will the bacteria method work? This should be looked at also. IF it is do-able then this method would cause even less destruction. While I know these two methods will take a longer time than the "old" method, perhaps we need to follow Ben Franklins advice, Haste makes Waste.
This area did not get this contanimated overnight, and it cannot be cleaned overnight either, althogh some people want it done yesterday.

No matter what method is used, it will not be acceptable to everyone. There will be an uproar from certain groups no matter what is done. I do not envy those making this decision. However, common sense should be big part in the decision and I don't believe common sense was used in the start of this clean up project. I believe what was used was the "hurry up, get it done" solution.

I wish you good luck in getting everyone together on this.

All The Best
Alvah Maynes

HOUSATONIC RIVER - GE - PCB/Southern Berkshires
Dale McDonald
to:
Susan Svirsky
01/19/2011 10:52 AM
Cc:
Linda.Palmieri
Show Details

SUSAN SVIRSKY

Dear Susan,

I am writing to you with regard to General Electric's 2010 Corrective Measures Study. I live on the Housatonic River in Connecticut.

I believe it is important that GE take full responsibility for its PCB-contamination of the Housatonic River: To that end, I believe it should undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible, literally.

It is unacceptable and libelous to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.
I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation. Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Sincerely,

Dale McDonald

From: Scott Mc Ginnis
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Friday, December 31, 2010 07:53PM
Subject:

History: This message has been forwarded.

The idea of cleaning the river while protecting habitat should be used for the entire project. Being able to change the cleanup proposel with current information and technology is essientail for such a long project from woods pond to Pittsfield.

Thank you
Scott Mc Ginnis
Pittsfield, MA

Sent from Yahoo! Mail on Android

From: Betsy McTiernan
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: <linda.palmieri@westonsoluntiuons.com>

Date: Tuesday, December 14, 2010 09:20PM
Subject: Housatoni c River clean-up

History: This message has been forwarded.

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation. I moved to the Berkshires from Oswego County in central NY, and area that has more than 10 toxic dump sites, some of which include PCB's. It would be a tragedy to pollute additional water sources in an attempt to clean up the one.

I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Yours truly,

Elizabeth A. MctTiernan

Great Barrington, MA

From: merrittmb
Sent: Friday, December 10, 2010 11:00 AM
To: svirsky.susan@epa.gov
Cc: phskaller@verizon.net; Palmieri, Linda
Subject: PCB housatonic south berkshires

Dear Ms. Svirsky,

I am writing to protest the proposal to create toxic waste dumps here in the Berkshires, or for that matter anywhere else. I do not think it is necessary to use these old technologies when there are new technologies available. While I am not completely current with the field, as a past practicing scientist I am aware that there are bio-remediation processes that are now acceptable and viable ways of dealing with toxic waste. While it may be new territory for the EPA to utilize these processes, that is not a reason to not use them. Progress can be good!

I urge you to adopt a proactive stance with regard to handling this problem and to not allow GE or the EPA's decison be guided simply by the immediate financial burden. We, the people, the land, the wildlife, the river have been paying a steep price already. It is not fair that a monolith such as GE, uses its corporate sovereignty to avoid responsibility. We must consider the science and the justice and let the truth of both prevail.

Sincerely,
MaryElizabeth Merritt, Ph.D.
Citizen of theTown of Great Barrinton
Master Planning Committee
Agricultural Commission

From: amiesmer
To: Palmieri, Linda
Subject: Lee dump site
Date: Saturday, December 04, 2010 3:12:36 PM

We are outraged by the suggestion that Lee would be an appropriate site for dumping of PCB toxic waste.
You guys need to search for land *not* near a watershed and *not anywhere* near people, even if it means bearing the cost of transportation. Please reconsider. Adrienne Miesmer, Tyringham, MA.

From: amiesmer
To: Christopher.Speranzo@mahouse.gov, Susan Svirsky/R1/USEPA/US@EPA

Date: Tuesday, January 25, 2011 08:22AM
Subject: Clean up safety!

-The radical dredging approach to the clean-up would require the creation of permanent dumpsites located within Berkshire County to hold the contaminated soil removed from the river.

-Even after a large-scale dredging project that takes years to complete, PCB levels in fish would remain above the levels EPA considers safe for unrestricted human consumption.

-This part of the River is a natural untouched forested and wetlands area, abound with wildlife and recreational activities. This portion of the river flows through nature preserves and important cultural resources, which are critical components of the Berkshire economy.

-The only Smart solution for clean-up is a Low-Impact Approach that will meet EPA human health standards while protecting the existing ecological and recreational resources of this portion of the river. It will disrupt less of the river and limit the impact on business and tourism during the clean-up process. This plan will protect the integrity of the river and the important role that it plays in the Berkshire County economy.

Thank you, Adrienne Miesmer and Bill Cosel, Tyringham, MA

From: GWMiller01
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, January 24, 2011 09:15PM
Subject: Housatonic clean-up

Hi!
While I think removing the PCB's is a sad necessity, I cannot support the kind of work that happened in Pittsfield with the foliage all removed from the banks and replaced with riprap. This sort of work is completely detrimental to the fish and all the other aquatic life in the river. Tearing up the bottom to remove the PCB laden soil will be a mess for a short time but will return to a normal state in time. Paving the river will have adverse effects forever.

Please approach this project carefully! Gary Miller

From:	ARNOLD M MILLER
To:	svirsky.susan@epa.gov
Cc:	sheapotoski; Palmieri, Linda
Subject:	GE PCB Cleanup of the Housatonic River in Berkishire County, MA
Date:	Sunday, December 12, 2010 4:47:20 PM

As concerned residents of Housatonic, Massachusetts, we would like to add our 2 cents to the PCB clean-up decision-making process that is about to take place.

Using the method proposed by GE to clean up the remaining portions of the Housatonic River would demonstrate a clear lack of knowledge of Southern Berkshire County. The economy of Southern Berkshire is largely based on tourism. People come here to get away from the pollution of our large cities and enjoy our pristine environment and the many cultural venues we have available. Creating toxic dump sites in Housatonic, Lee and Lenox, not just the heart of Southern Berkshire but its body and soul, could permanently choke the economic future of the region.

Using the GE plan, hiker and bikers, leaf peepers and skiers will find themselves passing toxic dump sites, then finding other places to spend their money -- not our country inns, restaurants, shops or theatres, performing arts centers or museums. We will no longer be their get-away of choice. In an economic climate such as we are in, local businesses and cultural attractions are hard pressed to stay above water. A downward spiral of any magnitude could easily devastate our local economy.

GE's clean-up proposal would rub salt in the already festering wound of PCB contamination, especially when there is new technology that could conceivably clean it up without the ramifications we have witnessed in Pittsfield. If technology is the future of America, let us take that step into the future. If it works, those technological innovators can not only clean up the GE legacy to the Berkshires but they can market them around the world where PCB's sit waiting for a solution. How wonderful it would be to turn PCB lemons into economic lemonade.

Thank you for your consideration,

Linda and Arnold Miller
Housatonic, Massachusetts

Housatonic River Clean-Up

Berkrealtr to: Jim Murphy 01/21/2011 02:31 PM

Cc: rep.christophersperanzo, bdowning

History: This message has been forwarded.

Dear Sir: I am writing to urge you to please support the lowest impact solution to the PCB contamination of the Housatonic River. General Electric has already done enough damage to the environment and Berkshire County by contaminating the river in the first place and should not be allowed to further destroy the area by moving the soil from the river to other locations within the county. That would be adding insult to injury. It is imperative that they not be allowed to further negatively impact the area by dredging and relocating the soil...this would do more harm to the natural habitat and residential areas, not to mention tourism and the disruption of the quiet enjoyment of life for the people in the areas affected. It is my hope that the EPA will demand that a solution be reached that will take into consideration these issues.

Marv Jo Miller

Lenox, Mass. 01240

Housatonic River Cleanup Phase II

Stephen Miller to: Jim Murphy 01/31/2011 04:29 PM

Mr Murphy,

As a resident of Pittsfield living near Pomeroy Ave., and as an owner of a business in Pittsfield (Miller Supply Co., Inc.) I support a lower-impact solution to the Housatonic River cleanup in this section of the river that would still be EPA compliant.

Thank you,
Stephen Ted Miller

Christopher Minkler

Stockbridge ma,01262
1/19/2011

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky,

I write this letter to express my strong opposition to the clean up and dredging the entire stretch of the Housatonic River that flows from the Pomeroy Ave Bridge to Woods Pond. My concern also extends to the stockpile of extracted PCB laden sediment into a Berkshire County landfill. I would support the removal of PCBs from highly concentrated areas such as Woods Pond.

The clean up and dredging that occurred in the first two miles of the river, substantially altered the eco-systems and scarred the natural beauty of the river. The proposed PCB clean up of the river will destroy the largest wetland area in The Commonwealth west of the Connecticut River. This area acts as a nesting and respite area for thousands of migratory birds. The large population of Kayakers and Canoeists would be forced to abandon this area due to the large, jagged, and obstructing rocks which will destroy the hulls of most watercraft. The fish and wildlife will have no shade or natural obstructions to protect them from the rising river levels and the hot summer sun. The flow of the river, which has taken thousands of years to form, would be lost forever.

Please consider the contents of my letter before you make a decision to destroy one of the true jewels of the Berkshires.

Sincerely,

Christopher

Christopher Minkler
Broker

RECEIVED
JAN 24 2011
By

December 14, 2010

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

On October 12, you received a proposal from GE regarding a Revised Corrected Measures Study for the rest of the Housatonic River. I work in Pittsfield and know how sensitive this subject matter is to many. I wanted to express my opinion and I know many feel the same way. Please don't disrupt the River, but rather let the river heal itself through natural recovery. This will protect the beauty and environment near our River. I hope you will consider this approach.

Best wishes,

Peter Mirante

RECEIVED
DEC 29 2010
By

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Friday, January 21, 2011 3:36 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (020153610) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:I would like to voice my support for a low-impact clean-up solution that does not include extensive dredging of the Housatonic River. We need to be smart about what we are doing to the community, to the environment and to the people effected. It is important to save the integrity of the river in the least invasive way possible.

03) Name:Beth Mitchell

05) (required) State:MA

From: Richard Mooney
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Sunday, December 12, 2010 11:54AM
Subject: Housatoni c River Cleanup

History: This message has been forwarded.

To: Susan Svirsky, Environmental Protection Agency Rest of River Project Manager

Dear Susan Svirsky,

Thanks for listening and helping us clean up the Housatonic River. As you know, the Housatonic has been fouled with PCB's for many years and needs your help and expertise to be restored to the safe and beautiful river it once was.

Who has not seen the beautiful vista's of the Housatonic while driving for example where the river meanders along route 7 in Glendale and not thought how wonderful it would be if people could once again stand among the beautiful exposed rocks to fish and swim there as my father had done?

I urge you to please reject GE's claim that cleaning the Housatonic River of PCBs will destroy the river. Rivers are being effectively cleaned throughout the country. Consider for example the work that has been done to restore the Cuyahoga in Cleveland, at one time considered the most industrially fouled and polluted river in the country. If they can do it, we can do it!

I also urge you to reject any GE plan to create additional PCB dumps in or alongside the "Rest of the River". GE has already created two large-scale dumps in Pittsfield and there are existing PCB dumps elsewhere in the nation. Dumps are never a successful long term solution: They just intensifies the problem and push it off to coming future generations who will live in and enjoy the Berkshires.

I further urge the EPA to actively pursue any available alternative remedial technologies that may effectively eliminate the PCB hazard. We deserve to have a series of pilot projects to see whether any of these new technologies might work effectively for the "Rest of River"

cleanup of the Housatonic. This could be an ideal and least invasive solution for us.

Finally, if the EPA chooses a cleanup program that involves dredging, please encourage the use of the least aggressive form of dredging that will still be effective, in order to minimize potential damage to the river and/or possible health dangers arising from such an operation. For example, is it true that PCB's only accumulate in very slow moving and deeper pools? If so, then maybe the dredging can be confined only to these areas, thereby cutting costs and limiting potential damage and risks.

Only a thoughtful and well managed comprehensive cleanup, overseen by experts like you, can restore the beautiful and scenic Housatonic River and provide a restored and pristine waterway benefiting not only the people who live along it's banks but also the wildlife of Berkshire County.

We cannot do it without your help.

Thank you for your time and attention.

Sincerely, Richard F. Mooney

Dec 22 2010

Ms Susan Svirsky

I have resided in Pittsfield, Ma for almost 88 yrs. and have lived in the south east side of town all my life.

I have hunted, fished, boated and hiked the Housatonic river area for a good many years. I saw what took place with the P.C.B river cleanup program in the Pittsfield area and hope that a more sensable method will be used in the further river treatment.

What was done before may have decreased the P.C.Bs. in the river but it now looks like a canal. I have yet to see a fish at any of the bridges.

We need an Ecologically Sensitive Approach to be used for better results for everyone.

Thank you
Richard W Mosher

Richard Mosher

Pittsfield, MA 01201-5615

RECEIVED
DEC 28 2010
By

From:	Annie Ritter
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	GE/Housatonic Rest of River Site
Date:	Wednesday, December 08, 2010 12:04:21 PM

Dear Ms.Svirsky,

I think that the mouth of the Housatonic River between Milford and Stratford,Connecticut should be considered for the GE cleanup of the Housatonic River where it meets Long Island Sound. PCBS from GE can be found as far as Long Island Sound.. There are health warnings about PCBS in the fish there. Thank-you for your attention to this matter.

Gail Mulrenan

From: Jane Murdock
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, January 31, 2011 11:11PM
Subject: Housatonic River Clean-up

GE's latest proposal to site several "dumps" in southern Berkshire County to hold PCB waste dredged from the Housatonic River is absolutely unacceptable.

Methods of river remediation outlined by representatives from Genesis Fluids Solutions and Biotech Restorations at a meeting in Lenox, MA on January 19th seemed based on up to date technology and old fashioned common sense.....a pretty good combination. I'd put my money on this solution any day.

Sincerely,

Jane Murdock

Housatonic, MA 01236

From: ashley murray
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Linda.Palmieri@WestonSolutions.com

Date: Monday, December 27, 2010 08:38PM
Subject: Housatonic River Clean up

History: This message has been forwarded.

To start with this subject...Obviously we know that Pcb's are dangerous to our environment. These were released into our environment carelessly from either some sort of spill or leak or improper disposal and or storage. Pcb's bind strongly to soil and sediment and are very dangerous to not only our wildlife, nature, and environment, but also to our physical health. Our body's absorb these Pcb's and store them in our fatty tissue and because they are difficult to eliminate they accumulate through out our bodies. Having said...A big way for us to be exposed to Pcb's and being contaminated by them would be how we make use of our nature and wildlife. There are about 3,000 members in the Berkshire County League Of Sportsmen. These individuals enjoy activities that partake around and even at the river itself. These activities include hunting, fishing, hiking, canoeing/kayaking, bird-watching, photography and other various forms of enjoying wildlife examination. A large percent of people are exposed to Pcb's by eating contaminated fish, meat, and dairy products. They can also spread into plant life and when our animals graze, it can contaminate them and make them very sick. Also, They can have a large effect on our agricultural resources. Other ways of being exposed to these Pcb's are through the air we breathe, or by skin contact.
Avoiding contact with contaminated soils and sediments can reduce our exposure to Pcb's. So That being said, I feel as though the monitored natural recovery will do nothing but cause more damage and health risks and the Sed 3/FP 3 is also a bad idea due to the fact that Pcb's strongly bind to soils and sediments.....Sand Is in fact a sediment. To take this approach...you would be hurting the environment more by taking the procedures to remove all of the vegetation to get to the contaminated soils underneath. Once you put the new soil in...What makes you think that it wont get re contaminated? We don't wanna effect wildlife habitats by cutting down trees and the impact on wildlife would be horribly devastating. I love our wildlife and environment and would hate to see anything happen to it. Let's leave our wildlife at peace in there habitats and have our environment remain beauteous and desirable to Berkshire County residents and visitors. I am A Resident Of Berkshire County and I have enjoyed all of the activities above along the Housatonic River. I'm Writing today to ask that you consider a sensible solution for the "Rest Of The River." The Ecologically Sensitive Approach (ESA) is a less damaging approach that will provide for a cleaner river while maintaining the nature and character of the river necessary to support the diverse wildlife. Don't destroy the river to fix it. Don't put the landfill in Berkshire County.

Sincerely,

Ashley Murray

Housatonic River Smart Clean Up

Steve Murray to Jim Murphy 01/22/2011 07:31 AM

I support the smart clean up (phase II) of the Housatonic River.

Steve Murray

--
Steve Murray

Richmond, MA 01254

"If it sounds good, it is good." Duke Ellington

From: William Murray
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Friday, December 10, 2010 10:42AM
Subject: FW: GE and PCB cleanup - PLEASE FORWARD and COMMENT BEFORE 12/15/10

History: This message has been forwarded.

Date: Wed, 8 Dec 2010 22:29:30 -0500
Subject: GE and PCB cleanup - PLEASE FORWARD and COMMENT BEFORE 12/15/10
From: sheapotoski
To: sheapotoski

Dear Friends of the Housatonic River,

The General Electric Company has issued its 2010 Corrective Measures Study for the Housatonic River. In it GE lays out several proposals for cleaning the river from Pittsfield south to Woods Pond.

The approach GE favors is to do nothing, claiming that the Housatonic is “flourishing” and that a substantial cleanup is nothing more than “destroying a river to clean it” and that "doing “less is more.” GE claims that if they are forced to clean the river they will need to create PCB dumps in the river at Woods Pond in Lenox or alongside the river in Lee and/or Rising Pond in Housatonic.

Please urge the EPA to make GE clean the Housatonic of the PCBs they have dumped. Housatonic fish and ducks have some of the highest levels of PCBs ever found in America. But most importantly, even though GE's website erroneously claims that there are no proven health risks to human beings from exposure to PCBs, the scientific evidence contradicts this claim. In fact, PCBs are extremely toxic to people. Simply avoiding eating fish from the River or not swimming in it will not protect us. PCBs from the river become airborne, so simply by living near the river, inhabitants are exposed to the hazards of PCBs just by breathing. However, even dredging and dumping pose serious risks and various methods for doing these need careful evaluation, as do completely different techniques for handling these toxic substances.

Therefore, we urge you to urge the EPA to vigorously insert itself into the decision-making process so that the best scientific data is independently brought to bear on what GE is required to do. To this end we have enclosed a sample letter to Susan Svirsky of the EPA for you to consider sending to her. Public comments on GE's proposals are due on or before December 15, 2010.

Comments may be submitted by mail to:

Susan Svirsky,

EPA Rest of River Project Manager

c/o Weston Solutions10 Lyman StreetPittsfield, MA 01201

by e-mail to:Susan Svirsky (svirsky.susan@epa.gov)

cc: Linda Palmieri (Linda.Palmieri@WestonSolutions.com)

You can read GE's report at:

http://www.epa.gov/region1/ge/thesite/restofriver/reports/cms/472605.pdf

Here is a sample letter you are welcome to use:

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Friday, January 28, 2011 4:20 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (027161955) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:Please use a low impact cleanup for the Housatonic River. Save the surrounding environment and wildlife. Thanks!

03) Name:Marie Musante

05) (required) State:VA

From:	Robert Navarino
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic cleanup
Date:	Friday, December 10, 2010 9:49:18 AM

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:
I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.
I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.
I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.
But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.
And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.
Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.
Thank you.

Robert Navarino
Gt. Barrington, MA 01230

Harold L. Nelson, PE, F. ASCE
Civil Engineer

Pittsfield, MA 01201

January 25, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

RE: Housatonic River - Rest of River (ROR)
Revised Corrective Measures Study (CMS) Report, October 2010
New Technology for New Options

Dear Ms. Svirsky:

Thank you for inviting public comment on the above report. As a stakeholder, I note the CMS process has consumed over ten years of effort by EPA and GE for the risk analysis, development of protection goals, modeling and finally investigation and evaluation of a range of corrective measures or cleanup procedures. This effort has resulted in thousands of pages of text, tables, maps, diagrams and photos, in accordance with provisions of the Consent Decree (CD) signed in October 1999.

GE notes in the revised CMS, that significant harm would occur to the river ecosystem from removal of sediment and floodplain soil, as a result of any of the remedial alternatives. The more work done, the more damage would occur. Alternatives SED 10/FP 9, the new GE preference for least damage, would still require significant removal of sediment and soil. This removal work would be designed to minimize harm and meet most of the EPA requirements. But even if SED 10/FP 9 were designed with these goals and concerns, there would be severe risks.

There have been significant developments in remediation technology since work started on the CMS. Some of the new technology includes computer mapping for control of precision contour dredging and volume reduction processing of contaminated sediment. None of this new technology has been considered in the revised CMS. We suggest their use would offer a higher level of cleanup, reduced impact on the ecosystem, and a reduced volume of material to be processed and stored. Details of this technology are described in this letter.

Core tests of sediment and soil used in the CMS are now over 10 years old. Spatial averaging was used to interpret the location and degree of contamination used in the CMS. Given the nature of sedimentation movement (scour) during flooding events, the accuracy of this data should be verified with new testing. And if precision contour dredging were adopted as we propose, the frequency of cores (smaller spacing) would need to be increased for generating engineered contour maps.

Finally Woods Pond presents a unique opportunity for additional dredging beyond PCB remediation. The purpose would be, to raise trap efficiency and reduce transport of sediments further down the river. I suggest this additional dredging should be considered and made part of a final CMS.

RECEIVED
JAN 26 2011
By

Engineered Contour Mapping:

Every river or stream is a moving body of water and sediment. When a river such as the Housatonic flows into Woods Pond, the reduced flow (velocity) of the water, causes sedimentation or settling of particles to the bottom. Sedimentation also occurs around obstacles in the river such as structures, piling or tree stumps where there are eddies and reduced flow. When velocity of the water is raised during an extreme event like spring runoff, sediment particles may again become water borne and move until their velocity is reduced and the sedimentation process begins again. There has never been dredging (would appear) in the 100 year history of Woods Pond. The configuration and shallow depth are ideal for sedimentation.

When dredging plans are engineered for the pond, there should be two objectives. The first is to remove as much of the contaminated sediment as possible so as to minimize transport down the river in a future flooding event. The second is to restore trap efficiency to as high a level as possible so as to retain new sediment flowing into the pond from upstream sources during normal or extreme events. Trap efficiency varies with characteristics of the sediment and retention time or rate of flow in the pond. The latter is controlled by the geometry and runoff characteristics. Trap efficiency is the ratio or percentage of sediment retained to sediment entering the pond.

Computer maps for operating a precision contour dredge are generated from surveys and software using GPS, multi-beam sonar, laser scanners and aerial orthophotography. In a "state of art" contour dredge, they are used to define location of PCB contaminated sediment, control dredging and verify results after dredging. During a preliminary survey, core samples from the waterbed, taken at close intervals are used to identify location, size and depth of PCB pockets. Depending on hydrology, the depth of PCB contamination can very from 6 inches to 10 feet. PCB contamination is seldom spread uniformly over a waterbed. Software mapping programs produce three-dimensional grid maps that are accurate within inches. Color codings on a monitor in the dredge show the operator where to dredge and provide real time (three dimensional control) of the auger at all times.

Costs for generating these sophisticated surveys are offset by savings in the volume of material that is dredged and processed and the cost of engineered capping. Contour dredging minimizes the amount of clean material removed and minimizes the contaminated material that is missed from dredging. Thorough dredging is achieved and over dredging minimized. Printouts from the RCS system provide as-built records of the finished bottom and are mandatory with some agencies including the NYS Department of Environmental Protection.

PCB concentrations existing in sediments of Reaches 5 and 6 are shown in the "Maps and Figures" folder available at <www.epa.gov/region12/ge/thesite/restofrivermaps.html>. The data is presented in the CMS report in support of the risk analyses and modeling, but would not be adequate for the contour computer maps proposed. In addition, changes in location and concentration of PCBs need to be confirmed from original surveys which are now over 10 years old.

Precision Contour Dredging:

Precision contour dredges are small hydraulic dredges that can operate effectively in water depths of 3 to 20 feet. Most of Woods Pond and downstream portions of Reach 5 would be suitable for operation of a precision contour dredge. Many upstream portions of Reach 5 could also be made suitable by controlling the water level with temporary sheet piling dams or weirs.

Conventional hydraulic dredges normally remove accumulated sediment to a uniform elevation for a channel such as in navigational dredging. Precision contour dredges remove sediment to variable elevations and locations according to an engineered contour dredging plan based on field cores and surveys. Precision hydraulic dredging is the least invasive and most efficient way of removing sediment where there are environmental considerations. Dredge guidance technologies and software enable dredging accuracy within close tolerances in contaminated areas.

A finished grade contour dredging plan in electronic format, created from a field survey is used to guide the dredge operator. Digging or dredging depths are varied according to the dredging plan. Precision dredges are typically outfitted with GPS and digital compass positioning systems, electronic depth gages and flow devices for monitoring discharge. A guidance computer is used to log data, track dredging coverage and record a final hydrographic survey of the finished bottom. This is a mandatory requirement with the New York State Department of Environmental Protection.

An 8 inch "Mud Cat" precision hydraulic dredge equipped with an 8 foot wide cutter head, typically digs by moving itself forward in a series of parallel lines, each successive pass slightly overlapping the previous one. The operation proceeds in grids using cables draped along the desired course to move the dredge. Unlike mechanical dredging currently approved for the Hudson River cleanup, resuspension of sediment in the waterway is minimal. Silk curtains or other barriers can be used to keep turbidity contained however. Resuspension of sediment on a recent project in Lake Champlain was so minimal, that dredging proceeded during public bathing on an adjacent beach.

A precision hydraulic dredge can be outfitted, leased and/or purchased from several companies in the dredging industry. At lease two companies offer real time control software for precision dredging one of which is headquartered in Middletown, CT. Three precision hydraulic dredges are currently working the Fox River cleanup in Wisconsin. Precision hydraulic dredges have been used recently on projects located on Lake Champlain and Long Island. The Long Island project, which removed contaminated sediment from above the original waterbed as a tidal pond used real time controls that made constant adjustments for changing ocean tides.

Slurry from the dredge would be pumped directly to a processing plant for treatment.

Volume Reduction Processing:

Separation of contaminated silt from sediment, volume reduction and reuse of treated material were major goals of a processing scheme developed in the Netherlands and now being used on the Fox River cleanup in Wisconsin. The Dutch had simply run out of space for transporting and landfilling contaminated sediment and a new approach was necessary.

At the Fox River project, where two Dutch firms are part of a cleanup joint venture, dredged slurry is pumped directly to a processing plant where water, sand and debris are removed from the slurry leaving a contaminated silt to be treated and filter pressed to make a dry filter cake. Volume reduction from sediment to filter cake is significant. Sand removed during processing is washed, tested, and reused as fill or sold for other beneficial uses. Water from the slurry is filtered and used in processing or returned to the river.

According to a cover story in the August 3, 2009 issue of Engineering New Record, *Just-in-Time Dredging Pulls Out Toxins,* the incoming slurry first runs through a scalping screen that takes out rocks, wood ships, bottles and other debris larger than 6 mm in diameter. The debris is sent to a land

fill, and the remaining sand, water and silt move to separator cyclones that remove sand from the slurry. The first set of separators remove grains from 6 mm to 150 microns in diameter, the preferred size for making concrete. The second set removes grains down to 63 microns.

From there, the remaining silty water goes to a conditioning tank, where it is dosed with a polymer and stirred to uniform consistency before being pumped into a settling tank. There the silt and polymer settle to the bottom as a sludge, while the water rises to the top and is pumped to a water filtration system for cleaning, testing, reusing or returning to the river. The water-treatment system has three identical filter trains that consist of sand filters, bag filters, carbon filters, and canister filters. The sludge or silt is pump[ed to eight of the worlds largest filter presses. Each press can squuze 600 cf of wet sludge into 18 tons of dry filter cake in 75 minutes.

Dredged slurry from a Woods Pond/River dredge could be pumped directly to a similar, scaled down processing plant to remove debris, dewater, desand, and filter press contaminated sludge to make filter cake. The processing plant could be located at the former Devos parcel off New Lenox Road, or further downstream closer to Woods Pond. Booster pumps could be used to maintain slurry flow to the processing plant. Clean sand could be belted to deposit in the Lane quarry for storage and resale. Concentrated filter cake could be transported and landfilled. GE notes in the revised CMS that a local upland disposal facility, beyond the flood plain would be "best suited" to meet criteria for the study. Presumably such a facility would be for dewatered, untreated sediment, (not filter cake) similar to material stored in controversial Hill 78

Conclusions and New Options for the CMS:

The primary purpose of this letter was to focus on three new procedures for the ROR cleanup. Though mentioned, none had been considered by GE in their previous CMS studies. They are procedures which improve mapping, dredging, and processing of PCB contaminated sediment. They have been developed since the Housatonic CMS process started, which may account for their omission by GE. In summary the three procedures would diminish over dredging and processing and diminish the volume of contaminated material to be transported and stored. They are recognized procedures currently being used on projects around the world because of their effectiveness.

The secondary purpose was to encourage dredging in Woods Pond to restore the original trapping efficiency of sediment in the pond and provide a unique barrier for sediment transport in future years. This is a natural step that needs consideration and incorporation in the final work plan. Raising the trap efficiency along with improved mapping and dredging would also obviate the need for river bed capping and stabilizing of river banks in Reach 5.

The new GE web site, "Options for the Housatonic" at www.housatonicoptions.com recommends Monitored Natural Recovery (MNR) versus other alternatives in the Revised CMS. I would suggest a new alternative with modified cleanup procedures as outlined in this letter, would be preferable to MNR. Again thank you for this opportunity to comment.

Sincerely,

Harold Nelson

Harold Nelson
Civil Engineer, PE, F. ASCE

Housatonic River Clean Up

Linda M. Noonan to: Jim Murphy 01/30/2011 03:10 PM

Cc: Rep.ChristopherSperanzo, rep.smittypignatelli, bdowning

Dear Mr. Murphy – We are writing to express our concern about the pending decision regarding Phase 2 of the Housatonic River Clean-Up. We grew up in Pittsfield, were educated in and graduated from the Pittsfield Public Schools, and continue to own a home in the Berkshires. We have watched the region move from a manufacturing to a service economy and feel strongly that the negative impact on the community from the environmental mistakes of the past cannot be compounded by the action taken to address these issues now and in the future. We strongly support the position of the *Smart Clean-Up Coalition* that a low-impact solution that meets the EPA's human health standards but does not damage the environment further in the process is the right decision for the environment and for the residents of the county.

We urge you to strongly weigh the views of those with strong investment and connection to the Berkshires in your decision. Thank you for your consideration.

Sincerely,

Linda M. and Robert G. Noonan

South Egremont, Massachusetts

Mailing address:

Westwood, Massachusetts 02090

from the desk of . . .

1-13-11

David F. O'Clair

SUBJECT: HOUSATONIC - REST OF RIVER

I am 100% for the Ecological Sensative Alternative. Don't ruin river banks.

Dave O'Clair

RECEIVED
JAN 18 2011
By

From: Keith ONeil
Sent: Wednesday, January 26, 2011 10:53 PM
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: [BULK] Public Comment - Housatonic River EPA Corrective Measure Study

Importance: Low

To Whom It May Concern:

My impression is that GE has made a concerted effort to convince local people and groups that they will have to destroy the river to remove the PCB's. Their efforts seem to be paying off as they are convincing people that the PCBs should be covered up or not removed at all. I do not believe that this is the right approach, I think that there are viable options to perform a sensitive clean up that will remove a large portion of contaminates from this part of the river. As of today, most of the information targeting the public relative to clean up remedies has been from GE. The EPA has not weighed in at this point. I feel that very strong public outreach is needed for whatever information the EPA releases in the future.

I personally feel that they need to get the PCB's removed from the river entirely. Covering it up or making believe it is going to break down naturally will not stop contaminated sediments from migrating down river in the future. I believe that targeted clean up of high concentration areas of PCB's can be accomplished without destroying the river. And I hope that the EPA explores every option to use the most modern equipment and techniques available, to remove and treat these contaminated sediments from the river. Also to accomplish this in a way that minimizes damage to this environmentally sensitive part of the river.

Every available technology should be evaluated and tested to find the best process to accomplish this task.

Under no circumstance should the EPA consider letting GE create any more PCB dump-sites in Berkshire County.

Regards,

Keith C. O'Neil

Lee, MA 01238

From:	Vivian Orlowski
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Comments on EPA Rest of River Project
Date:	Wednesday, December 15, 2010 5:49:19 PM

To: Susan Svirsky, Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. This letter expresses my own concerns, based on my personal and professional experience and insights. My professional affiliation is given for identification purposes only--I have not been authorized to speak on behalf of Berkshire County Boards of Health Association.

PROCESS

1. At this point, my first request is for more time for public comments, so that organizations such as Berkshire County Boards of Health Association and local boards of health have the opportunity to meet and discuss GE's plans for PCB remediation. A number of other nonprofit and/or faith-based organizations also should be given more time for comment.

2. While GE's plan has been made public, citizens have not had an opportunity to discuss this issue with independent consultants. When a new real estate development seeks to build in town, it must appear before appropriate town boards and, if needed, pay the costs of hiring an independent consultant to advise the town decision-makers. GE's plans for the Housatonic River will have more impact on a much wider area throughout our region than any one real estate development. The EPA should assure that local government and civic groups have access to such independent advisors--ideally funded by GE, which has ultimate responsibility. Otherwise, by the appropriate funding from the EPA.

3. Please provide the opportunity for local input, before you hire any future consultants to work with the community on this project. In May 2010, I understand that the EPA held a public information meeting to meet the two consulting firms that were candidates for the job of facilitating initial formation and operation of the Gowanus Canal Community Advisory Group. (see final paragraph: http://www.crainsnewyork.com/article/20100512/REAL_ESTATE/100519939#). I highly recommend that you provide opportunities for the community in Berkshire County to recommend selection of such consultants for our area.

4. The EPA website on the Rest of River Project provides thorough information. Please try to make it more user friendly and frequently updated for the public. For example, today at a public meeting in Great Barrington, your consultant Steven Shapiro from Certus Strategies, indicated that the public comment period has been extended to January 30, 2011. However, since your website, as of today (December 15), still lists December 15 as the deadline, I am submitting this email to you today. However, there are many others who have not yet had a chance to to write. Your website should make it clear that you will still review comments submitted until the end of January 2011.

PCB REMEDIATION

1. From my initial understanding, GE's plans seem inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic

River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible.

2. As someone working on public health emergency planning, I am especially concerned about contingencies for a back-up water supply in case our primary source for town water would not be usable. Proper remediation of PCBs in the Houstonic River--as soon as possible--would provide a safe secondary water source, which will not be available as long as PCBs are allowed to continue in their present state.

3. Public health officials in Massachusetts and in Berkshire County are encouraging consumption of nutritious, fresh, locally grown food. Yet, PCBs in the Houstonic River prevent residents from eating river fish and call into question the safety of food grown by farms near the river that may be impacted by PCBs in the Housatonic River--especially when there are conditions of flooding (which frequently happens).

4. I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation. But most importantly, I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup. I have done initial research about the work of **BioTech Restorations** and **GeoSolve** in California and strongly urge you to require initial study and pilot programs using this apparently successful and ecologically-sensitive approach. (http://www.californiagreensolutions.com/cgi-bin/gt/tpl.h,content=2127)

5. If the EPA chooses a cleanup program that involves dredging, I urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

In summary, I agree with many of my neighbors and colleagues that only a comprehensive cleanup will restore the Housatonic River and provide us with a river that is a resource, rather than a detriment, for our residents as well as for the larger ecosystem. Thank you for your consideration of these issues.

Sincerely,

Vivian Orlowski

(Great Barrington Resident)
Great Barrington, MA 01230

Vivian Orlowski, M.A.
Emergency Planner
Berkshire County Boards of Health Association
1 Fenn Street, Ste.302, Pittsfield, MA 01201

From: Wes Orlowski
Sent by: wieslaw
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Linda.Palmieri@WestonSolutions.com

Date: Wednesday, December 15, 2010 11:59PM
Subject: Comment on Rest of River Project

History: This message has been forwarded.

To: Susan Svirsky, Environmental Protection Agency Rest of River Project Manager:

I appreciate the opportunity comment on the plans for the Rest of River Project for the Housatonic River. I am a retired electronics engineer and a founding member of the Community Development Corporation of South Berkshire. It is important the EPA fully research all methods of treating PCBs and make provisions for pilot programs of promising new technologies such that already implemented by BioTech Restorations and GeoSolve. Please do not allow GE to frame the options for the community as either an essentially "do nothing" approach or a more extreme version of "dredge and dump" leaving toxic waste dumps in our communities. At the very least, more advanced and ecologically protective measures for dredging should be required and toxic waste could be shipped by train to a secure toxic waste landfill in a less densely populated area with a more arid climate such as the one in Texas.

As this process proceeds, I am also concerned that citizens and local officials get access to a knowledgeable independent consultant, who can not only facilitate discussions, but can help us interpret the wide variety of scientific findings on the PCB issue--especially about the health impacts of PCBs on people and on the health of our environment. In trying to learn more about such a consultant, I found information online about EPA Region 2 inviting the community to a public information meeting to get to know two candidates for neutral facilitator of the Gowanus Community Advisory Group. The notice from the EPA stressed the "public involvement in the decision making is an important part of the EPA Superfund Process." Would the communities involved in the Rest of River decision making qualify for such a Community Advisory Group (as in the Gowanus community)? We need to have more assistance for town officials and residents and we need more options for remediation technology than that proposed by GE.

Thank you for your help with these matters.

Sincerely,

Wes Orlowski
Great Barrington, MA

From: "Eduardo O'Toole"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, January 31, 2011 08:32PM
Subject: river clean up

Dear Susan Svirsky, Thank you for all your work protecting the people of Berkshire County and all the others that live along the Housatonic River. Please require GE to clean up their mess. I understand from their video, that they don't see the problem. Again, please require them to remove the PCP's that they dumped in the river. Please look into the new technologies available for this clean up. And finally, work with the groups already working to clean up the river.

Thank you for your time and consideration. Sincerely, Eddie O'Toole

From: "Eduardo O'Toole"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, January 31, 2011 06:23PM
Subject: Housatonic River

Dear Susan Svirsky,
Please don't be fooled by GE's presentations and plans. We can clean the river up and protect the wildlife and its natural habitat. It is a big job but not too complex for GE or the local community to grasp if we really work together. Good Luck with your work, it is very important. As is the work being done by local conservation groups. I hope that you are taking them seriously .
We can do a good job of this . Please keep some optimism and hope. I know that it has been a long haul .Don't give up on us.

Thank You,
Kelley O'Toole

DATE: Nov. 29 2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. As a resident of , I urge you to take the course of Monitored Natural Recovery. Over the past years, we have seen less and less PCBs in the River. Any disruption to the riverbed and riverbanks will churn up PCBs and will have a significant negative impact on the river itself as well as on the plants and animals along its banks. And without a doubt the people who live along the River and in the nearby communities will face all of the negative impacts that digging up the River will cause.

Please do not force GE to take actions that will destroy our river.

Sincerely,

Homer L. Ouellette

Pittsfield, MA. 01201

I am 84 yrs old. I have probably eaten more frog legs from Woods Pond than you have eaten hamburgs.

Leave the Housatonic Trout in peace. Nature will heal her.

Homer

RECEIVED
NOV 30 2010
By

From:	Paige Pantezzi
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic - GE 2010 Corrective Measures Study
Date:	Monday, December 13, 2010 9:42:38 AM

To Susan Svirsky, Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

As the mother of a small child, I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country and the same needs to be done here.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation. Building one along the Housatonic is not an acceptable solution.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.
Paige Pantezzi
Great Barrington, MA

From: Alan Papscun
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Linda.Palmieri@WestonSolutions.com

Date: Monday, December 13, 2010 06:12PM
Subject: Commenting on GE's plans for PCBs in the Housatonic River

History: This message has been forwarded.

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

I live in Stockbridge about 600 feet away from one of the most beautiful sections of the Housatonic River, so close that I can hear it! The river has become part of my life and that of my 11 year old son, but because of the PCB pollution we cannot wade nor fish nor swim. Rivers are not only to LOOK AT! It is completely unacceptable for GE to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river, myself and my son included, are exposed to serious health risks.

In regards to General Electric's 2010 Corrective Measures Study, I believe it is inadequate in several important ways. It is important that GE take FULL responsibility for all its irresponsible PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country. It may be costly but corporations such as GE take on risk when in pursuit of profits.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. To create PCB dumps in our 'front yards' is incredible arrogance! The front lawn of GE's main office in Fairfield, Connecticut is an ideal location.

I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation. The EPA must also insure that the Housatonic is restored to its full natural beauty, not left like an industrial ditch.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Sincerely,

Alan Papscun, Stockbridge, MA 01229-0084

From: Anne & Walt Pasko
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Lori Gazzillo <lori.gazzillo@legacybanks.com>

Date: Sunday, January 30, 2011 10:55AM
Subject: Housatonic River Cleanup

Susan, I am writing to you to respectfully request that the EPA support a low-impact cleanup solution for the Housatonic River in Berkshire County, Massachusetts.

Please know that extensive dredging of the Housatonic River would have a devastating impact on the Berkshire County economy and businesses. As you must be aware, tourism is our largest industry and the extensive dredging of the river will totally change the landscape of the river and river banks. The area surrounding the river is full of important streams, wetlands that would be damaged for years to come.

Please support a low-impact cleanup solution.

Thank you for every consideration,

Anne W. Pasko

Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

EPA Rest of River Project Manager
Susan Svirsky

December 9, 2010

Dear Susan,

Thank you for the work you have done to restore the purity of the Housatonic River in Berkshire County. I remember your presentations to the towns several years ago because I filmed several of them for local cable television. I know you're intent is to protect nature as it can not defend itself against the greed and mis-management of mankind.

General Electric's corrective measures study is thought by many concerned citizens to be inadequate. We have hoped and been encouraged to believe for a long time that GE would clean up the polution left in our river. It is unbearable to accept that GE has no plan to do so. Our fish and wild life have been poisoned, and our people exposed to serious health risks. Please reject GE's claim that a clean up process will destroy the Housatonic!

I beg you, as our advocate to the Environmental Protection Agency, to actively pursue the newest remedial technologies to find out whether any are appropriate for the Rest of River clean up. The Housatonic deserves a first rate clean up. The story of the river will provide a role model and inspiration for the future.

Sincerely,

KARIN J. PASSMORE

Karin Joy Passmore

Housatonic, MA 01236

RECEIVED
DEC 13 2010
By

From: CA Patterson
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Christopher.Speranzo@mahouse.gov, rep.smitty@mahouse.gov, bdowning@bendowning.org

Date: Monday, January 24, 2011 06:26PM
Subject: Smart Clean Up of the Housatonic

To the attention of:
Susan Svirsky, EPA Rest of River Project Manager
Dear Ms Svirsky

Phase II of the Housatonic River flows through wildlife and residential areas. Extensive dredging would devastate the River, the Berkshire County economy and quality of life for decades, if not forever. We cannot allow this to happen. It is important that we advocate for a low-impact solution that still meets the EPA human health standards. Berkshire residents have an opportunity to make a difference on a very important matter affecting our entire community. I want to be one of the voices in this community that asks that the choices made are the correct ones, ones that protect us from:

-The radical dredging approach to the clean-up that would require the creation of permanent dumpsites located within Berkshire County to hold the contaminated soil removed from the river.

-PCB levels: Even after a large-scale dredging project that takes years to complete, PCB levels in fish would remain above the levels EPA considers safe for unrestricted human consumption.

-Damage to or wildlife and natural habitats: This part of the River is a natural untouched forested and wetlands area, abound with wildlife and recreational activities. This portion of the river flows through nature preserves and important cultural resources, which are critical components of the Berkshire economy.

The only Smart solution for clean-up is a Low-Impact Approach that will meet EPA human health standards while protecting the existing ecological and recreational resources of this portion of the river. It will disrupt less of the river and limit the impact on business and tourism during the clean-up process. This plan will protect the integrity of the river and the important role that it plays in the Berkshire County economy.

Thank you.
Carolann Patterson
--
Carolann Patterson
PR and Marketing Consultant

Housatonic River

dianetsp to: Jim Murphy 01/28/2011 05:08 PM

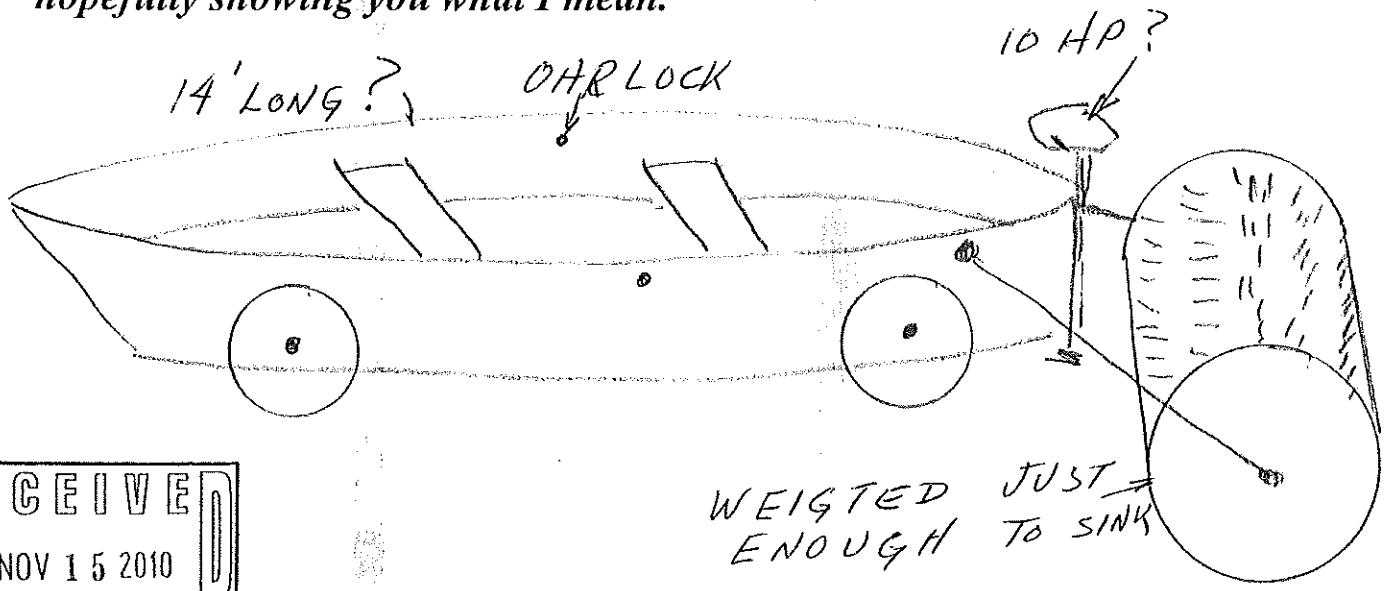
I support a low impact plan of action.
Diane Penola

Richard F Peters

Hinsdale MA 01235-9431

November 9,2010

In response to your letter about the comments concerning the Housatonic River. First of all I don't want the river or it's banks destroyed and I believe that no matter what approach is taken it would be impossible to get all the PCB's out. I would propose using a john boat with a motorized round brush and the boat would need wheels to get over the shallows. Do one pool at a time until reaching Woods Pond and then dredge. Below is a sketch, hopefully showing you what I mean.



RECEIVED
NOV 15 2010
By

From: Alexandra Phillips
Sent: Monday, January 31, 2011 9:21 PM
To: Palmieri, Linda
Subject: Fwd: Housatonic Clean Up

---------- Forwarded message ----------
From: **Alexandra Phillips**
Date: Mon, Jan 31, 2011 at 8:48 PM
Subject: Housatonic Clean Up
To: svirsky.susan@epa.gov

Dear Ms. Svirsky,

Thank you for taking the time to read this letter. I am writing to you in regards to the PCBs in the Housatonic River. I recently moved to Massachusetts and quickly caught word of the planned "clean-up" by General Electric. GE's plan to dredge out the Housatonic's sediment and bury it in designated dumping sites is, to say the least, disappointing. Especially as one of the dump sites is beside Goose Pond, one of the state's cleanest bodies of water. This proposed cleanup is a chance for the EPA and GE to responsibly pave the way in new environmentally responsible methods of toxic cleanup.

The residents of Pittsfield and those living along the Housatonic have suffered cancer and other health problems over the past decades due to GE having polluted the river. Although a cleanup is very necessary, carrying the process out properly is even more important. On January 19th, 2011 I attended a lecture organized by the Housatonic River Initiative. Two companies were there to explain how they can successfully clean up the river. I'm sure you have been informed of their methods. The practices of both Genesis Fluid Solutions and Biotech Restorations are sound and, not only an environmentally wise, but also economically beneficial. I understand that on government and corporate levels situations are not often this simple; often with 'billable hours' and business partnerships coming first over sound decision-making. In this case, the citizens of Massachusetts are encouraging the EPA and GE to lead as an example of how toxic clean-ups can be conducted in the future, with minimal harm to the environment and it's surrounding citizens.

Thank you for your time and for caring about the Housatonic River,

Alexandra Phillips

01-10-11

Michael P Pigott
Berkshire County Res.
for 54 years

To Whom it my concern

I am writing this letter in regards to the clean up of PCB's remaining in the Housatonic River, first let me tell you about myself growing up in the south east section of Pittsfield Mass. were PCB's were everywhere. As a young man I injoyed Playing around the river catching frogs and fishing. Later in life I began working at G.E. transformer section were I have stood in and worked up to my albows in PCB oils. I am now fifty four years old raised three Boys who grow up and play in the same places I did as a child and now there raising there children. We've injoyed the river for over three generations and would like to contenue with my grandchildren. The woods pond area has some of best fishing in berkshire county. Myself and others I grow up with have never seen any ill health effects do to PCB's so if myself and others that grew up with PCB's are fine, then why distroy what took mother nature 100's of years to make for such a minute amount of PCB's and if delliate species are living and thriving with no effects from PCB's Then why? Please vote for step 1 monitoring Natural Recovery

sencerely Michael P Pigott

RECEIVED
JAN 18 2011
By

From:	Luke Plaquet
To:	Susan Svirsky
Cc:	Palmieri, Linda
Subject:	my family and I grew up on the river
Date:	Saturday, December 11, 2010 6:13:08 AM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.
I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.
I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.
And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.
Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.
Luke, Shannon and Logan Plaquet

From: John Potoski
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: sheapotoski, Linda.Palmieri@WestonSolutions.c

Date: Saturday, December 11, 2010 04:07PM
Subject: PC Bs

History: This message has been forwarded.

Dear Ms Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Sincerely

John Potoski,

Retired chemist

Resident of Berkshire County

From:	Shea Potoski
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	GE and clean up of the Housatonic River
Date:	Monday, December 13, 2010 3:25:30 PM

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

I live in Housatonic. My property overlooks the river and I enjoy staring at it as it flows by everyday.

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people like myself living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation. Creating any new dumps near or along side the River is completely unacceptable. GE should be required to ship the waste materials from cleaning the Housatonic River to the same places that they are shipping the dredge from the Hudson and other remediation projects.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

--
SHEA POTOSKI

_____

This e-mail and the information transmitted may contain PRIVILEGED and CONFIDENTIAL information and is the property of the sender. If you are not the intended recipient, or the employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination or copying of this information or the taking of any action in reliance on the content of this information is strictly prohibited. If you have received this e-mail in error, please contact Shea Potoski immediately by return e-mail or at Thank you.

Please consider the environment before printing this e-mail.

From:	Marcia Powdermaker
To:	svirsky.susan@epa.gov; Palmieri, Linda
Subject:	Revised CMS, Rest of RIver, GE - Proposal COMMENTS
Date:	Friday, December 03, 2010 1:08:06 PM

The PCB's in the Housatonic River, south of Pittsfield need to be cleaned up. However the proposed solution to create toxic waste sites for the contaminated material in Berkshire county defeats the purpose of the remediation. One site that is proposed for storage of the PCBs is on Forrest ST, Lee.
This location would feed the PCBs back into streams that feed into the Housatonic. It is also part of the watershed of the Housatonic River.
Our community does not want to be the recipient of the carcinogenic PCBs in another location after they
are taken out of the river.

Our hope is that the PCBs can be neutralized with technology, and expect that GE responds to this type of technology
should it prove effective

Marcia Powdermaker
Tyringham, MA

1/26/11

Subject: Comments Regarding CMS report for the Housatonic River Site

Atten: Susan Svirsky, Rest of River Project Manager

Dear Susan,

I assume that PBC testing in the fish, amphibians, & other living creatures downstream from Pittsfield is still being done a continuing basis. Are the results showing a decrease in levels of PBC's in their bodies? If the results show levels continuing to decrease in these creatures, I suggest nothing be done to the rest of the river for at least five to ten more years. If the levels continue to decrease after this addition period of time, wouldn't it prove that the river is cleaning itself, and nothing more should be done regarding PCB cleanup? If the levels are not decreasing after five or more years, then I would suggest that clean up might be necessary but, limited only to the "hot spots".

Sincerely,

Dale

Dale Prindle, Pittsfield, MA 01201

RECEIVED
JAN 27 2011
By

Housatonic River Clean-Up

Norma Probst to Jim Murphy 01/24/2011 10:44 AM

Cc: Rep.ChristopherSperanzo, Rep.SmittyPignatelli, bdowning

Dear Mr. Murphy

As member of the Berkshire County business community and a Pittsfield resident, I would like to voice my support for a low-impact clean-up solution for the Housatonic River that does not include extensive dredging. I have had the personal opportunity to experience this beautiful natural resource which flows through mainly wildlife and residential areas. Additionally, I believe that extensive dredging would devastate the river and negatively impact tourism, the Berkshire County economy and our quality of life for years to come. In order to save the integrity of our river please move for a low-impact solution that still meets the EPA human health standards.

Thank you for your attention.
Sincerely,

Norma Probst
Director of Marketing
Cranwell Resort, Spa & Golf Club
55 Lee Road, Route 20
Lenox, MA 01240
T: 413-881-1678, F: 413-637-0571
norma@cranwell.com www.cranwell.com

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From: Luke Pryjma
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, January 24, 2011 06:40PM
Subject: housatonic river clean-up

Hello Susan Svirsky, EPA Representative,

I hope I can have a few minutes of your time. I am 31 years old. I grew up and live in Great Barrington and I was born in Pittsfield. For decades GE was dumping PCBs into the Housatonic River. PCBs cause cancer. PCBs have hurt Pittsfield badly. I want the Housatonic River to be safe. I want the Housatonic River to be respected again. I hope and know we'll make the right decision, to save and protect as much of our wild beauty as possible.
Biotech Restorations spoke at the January 19th meeting at Lenox community center. Chris Young, the CEO, gave a presentation I am still digesting and sharing with people willing to listen. The Berkshires deserve a healthy Housatonic River. The Housatonic River is sick. There is a company that can make the recovery of the river and the life in and around it faster, cheaper and safer for everyone.

Life around the river is affected by the PCBs. Even soil bacteria are affected. They can't do their job. Their job is to break big chemicals into smaller ones. They don't have their tools to chop up the PCBs. The tradition for how they make pick axes is erased by PCBs' chlorine. Bacteria are left standing in front of PCBs without the tools to support themselves. They can't eat if they can't pick ax big chemicals into smaller ones. They waste away.

If you are familiar with Pittsfield then you know that this analogy doesn't stop with bacteria. The people of Pittsfield had great jobs with GE. The town was successful. There was a minor league baseball team, a great theater, restaurants, a nightlife. People from far away knew this little town in the sticks. Slowly that changed. People started getting sick. Jobs started getting cut. GE left the people without tools to support themselves. And enough time had passed that the old ways weren't anymore. For many years the people of Pittsfield wasted away. Just now they are putting together ways to make a living based on a closer to home approach. Their grip on their livelihood needs to be stronger. They have poisons in the river working against them. Pieces of their land needs to be given back to them. There shouldn't be places that haunt. That aren't talked about.
GE left 40 years of PCBs in the river. GE was at the White House recently meeting with the President of China. Before GE gets any further away they need to clean up there mess safely in Pittsfield. GE has a chance to learn a great lesson and re-gain the town's pride and the pride in themselves.
How do we clean up PCBs? Right now there is something trying to break them up. Let's help them. Giant machines dredging after microscopic particles are messy, hard on the land and the PCBs are left to haunt someone else. Chemicals that try to de-chlorinate PCBs are too dangerous. Helping bacteria to make their tools is a simple solution that follows our spirit of recovery.
The local bacteria get their ability to make their tools again. Instead of genetically modifying the bacteria, Chris's company transcribes the DNA that makes the protein the bacteria are missing. A DNA gene set is given back to the bacteria and now they can chop up the PCBs. There will be a day when the river will be safe again for life. It could be much sooner. GE could be a part of the solution. Chris's company could be the catalyst. The people of Pittsfield are doing their part. Let us help the bacteria get the tools the need to start chopping up the PCBs.

Thank you, Luke Pryjma

PITTSFIELD, MA.
DATE: NOV. 22, 2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. As a resident of PITTSFIELD, I urge you to take the course of Monitored Natural Recovery. Over the past years, we have seen less and less PCBs in the River. Any disruption to the riverbed and riverbanks will churn up PCBs and will have a significant negative impact on the river itself as well as on the plants and animals along its banks. And without a doubt the people who live along the River and in the nearby communities will face all of the negative impacts that digging up the River will cause.

Please do not force GE to take actions that will destroy our river.

Sincerely,

Edward Buskey

RECEIVED
NOV 29 2010
By

Housatonice River Cleanup

anne rab to: Jim Murphy 01/29/2011 03:41 PM

Dear Sir,

As a resident of the Berkshires I am concerned about the next stage of the Housatonic River clean-up. What was done in Pittsfield is unacceptable. The river is no longer a river. It has been turned into an ugly industrial canal.

It would be a disaster if the beautiful Housatonic with its twists and turns, trees, grasses, shrubs, bird life and river life would be dealt with in the same manner.

There has to be a low-impact clean-up solution that does not include extensive dredging.

In fact, can't the river just be left alone?

Yours sincerely
Anne Rabinowitz
Stockbridge, MA

From: kraftery
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Wednesday, January 26, 2011 10:18AM
Subject: River Cleanup

Dear Susan,

I have been following the 'Rest of the River' cleanup subject as it has gone through various stages and talks, etc. The meeting last week at Lenox Community House seemed to make the most sense. I feel strongly that the PCBs need to disappear from the river and the land and not just be stored somewhere. If the technology is there or is close to being developed to destroy the substance, I feel we should explore the options. If the bio-tech company is willing to try our river as an experiment to better develop their product thus helping everyone down the road, shouldn't we give it a try? Nothing will ever get better if we don't try to develop new ways of doing the things that we don't do well, by doing them in the 'same old, same old' way. The old solution is not the best way to do things as we have found out in Pitts.

How much time do we have? Can we afford to explore this option a little more or try it in a small way before making a final decision on the whole area? Let's give these companies a chance to prove what they can do. I strongly feel this is worth a try. I get that we have to get rid of the PCBs but doing it the way it had to be done in the center of town is not very acceptable in the next ten miles of river.

Please listen to the reasonable approachs to this very controversial matter.
Thank you

Marie Raftery

Stockbridge, Ma

From: Patrick Rathbun
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Thursday, January 20, 2011 11:04AM
Subject: Housatonic River

Susan:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country. I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you,

Patrick Rathbun

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Friday, January 21, 2011 7:53 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (020195312) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.
I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

03) Name:Craig Reynolds

05) (required) State:MA

Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dec. 4, 2010

Dear Susan,

I am a resident of Egremont, MA - right next to Gt. Barrington. I do not live on the Housatonic River but the Green River runs through our property. The Green river is a clean, trout stream which is a major source of water for the town of Gt. Barrington. I believe whatever happens to the ~~Green~~ Housatonic River will eventually effect the Green River which flows into it. The fish and wildlife carry PCB's from one river to the other.

Please do what you can to make the GE clean up the PCB's in the Housatonic in the best way possible for the sake of our children, our grand-children and all future generations. (Clean) Water is the blood of life and so precious to our survival; not just physical, but our economic survival as well. To our family the Green River is sacred and so should be the Housatonic to all who live by it.

Julia M. Reynolds

RECEIVED
DEC 06 2010
By

Julia Reynolds
Gt Barrington, MA 01230

Phase II of the Housatonic River Clean -Up Effort

Lisa I Reynolds to Jim Murphy 01/31/2011 11:14 AM

Dear Mr. Murphy:

I am writing in regards to the Environmental Protection Agency's pending recommendation for Phase II of the Housatonic River clean-up effort from Pomeroy Avenue south to Woods Pond in Lenoxdale.

As a resident of the area directly affected by the proposed clean-up effort, I am deeply concerned that Phase II will have a negative, irreversible outcome on our environment and community. Extensive dredging in Phase II would negatively impact tourism in Berkshire County for years to come, not to mention jeopardize the landscape and its wildlife. Furthermore, as we have seen with Phase I, physically removing portions of the river can unleash many of the toxins (PCBs) in the Phase II section of the river downstream.

I encourage you to consider a low-impact solution that still meets EPA's human health standards and will not damage the environment further in the process.

Berkshire County is a unique area with a beautiful landscape, many cultural institutions, and a robust tourism economy. Illustrator Norman Rockwell, writer Edith Wharton, sculptor Daniel Chester French, and many other American icons chose to live in this area because of its geographic location and beautiful environment. I hope that the EPA will make an informed decision for a low-impact solution and choose to protect this historically and culturally significant area.

Sincerely,

Lisa I Reynolds

January 9, 2011

Mrs. Susan Svirsky,

I am a resident of Lenox and I have spent countless hours canoeing and fishing on the Housatonic River from Decker's landing to Woods Pond. This very special portion of the river is nature's gift to Berkshire County. We have not been good stewards of this resource. We must not destroy the river and adjacent habitat in an effort to reverse the industrial pollution inflicted on the Housatonic during the past several decades. I urge the E.P.A. to adopt the ecologically sensitive approach to clean the "rest of the river".

Sincerely,

Thomas F. Roche

Thomas F. Roche

RECEIVED
JAN 11 2011
By

From:	Heather Roming
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	GE-Pittsfield_Housatonic River Site
Date:	Monday, December 13, 2010 1:13:58 PM
Attachments:	GE-Pittsfield_Housatonic River Site.pdf

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager

Dear Ms. Svirsky,

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is an inadequate study in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I am a former resident of Housatonic, but I still consider it my home as much as I did when I was growing up there. We've slowly become a nation of "instant gratification," no accountability and a "quick buck" with little thought or regard for the immediate consequences it may have on society, or even worse, to our future generations. Auto-immune disorders are increasingly on the rise. Is that any surprise with our genetically altered foods and the toxins "**we**" are dumping into our water? And I say, "**we**" because we are all responsible for the state of things. Could it happen if we didn't allow it? We cannot continue to ignore these "silent dangers" with a wave of the hand or a turn of the head. Every choice to not take action, to not take a stand, is a choice to allow it.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country. Is it not the responsibility of GE to figure out a safe and effective way to clean the river rather than making excuses?

I ask that you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

Most importantly, I implore the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

If the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide, not only the people but the wildlife of Berkshire County, the river they deserve.

On behalf of my family and all of my concerned friends of Berkshire County, I respectively request your support in holding GE accountable for their actions. I appreciate your time!

Note: Commenter attached GE's 2010 Revised CMS Report. This report can be located at EPA's Housatonic River Website at the following web address:

http://www.epa.gov/region01/ge/thesite/restofriver/reports/cms/472605.pdf

Sincerely,

Heather Roming

"How do you change the world? One random act of kindness at a time."

Author Uknown

“Be the change you want to see in the world.”

Mahatma Gandhi

"When I was a young man, I wanted to change the world.
I found it was difficult to change the world, so I tried to change my nation.
When I found I couldn't change the nation, I began to focus on my town.
I couldn't change the town and as an older man, I tried to change my family.
Now, as an old man, I realize the only thing I can change is myself, and suddenly
I realize that if long ago I had changed myself, I could have made an impact on my family.
My family and I could have made an impact on our town.
Their impact could have changed the nation and I could indeed have changed the world."

Author Uknown

From: John G Root Jr
Sent: Monday, January 31, 2011 7:49 AM
To: Svirsky.Susan@epamail.epa.gov
Cc: Palmieri, Linda; kkimmell@state.ma.us; michael.gorski@state.ma.us
Subject: The Housatoxic

Many of us have been wondering when we can stop calling our river the Housatoxic. It seemed for awhile there that GE really was cleaning it up; BUT, lets get the job done. It is not reasonable for GE to spend billions on its image promoting green technology and not be held to account about the complete cleanup of the Housatonic.
We want to stop calling it the Housatoxic. We want our river back.
Whose side is the EPA on GE's or the ours?
John G Root Jr

Community Division Organizer and Policy Analyst
Campaign for a Common Good Economy
www.commongoodbank.com
The Means Assures the End. Do the Good!

From: Beth Rose
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Thursday, December 09, 2010 06:57PM
Subject: PCB's and the Housatonic

History: This message has been forwarded.

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

From:	jon rosen
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	GE and Housatonic River Cleanup and PCB dumping sites
Date:	Saturday, December 11, 2010 12:39:45 AM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

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Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Jon Rosen

From: "Ruderman, Dan (LNG-HBE)"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Wednesday, December 15, 2010 09:34PM
Subject: The Rest of the River - restore, protect, and serve future generations.

History: This message has been forwarded.

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

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Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Dan

. . . . . .

Dan Ruderman
LexisNexis

Great Barrington, MA 01230

From:	Ditte Ruderman
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic river clean up!
Date:	Sunday, December 12, 2010 10:21:39 AM

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Ditte Ruderman

From: KAREN RUTSCHMANN
Sent: Sunday, January 23, 2011 7:46 PM
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: PCB's

Please, please, please... a better option must be found. Dumping PCB's near the pristine Goose Pond or Woods Pond is deplorable. What a shame someone even thought it might be an acceptable solution.

Very concerned,
Karen Rutschmann

December 20, 2010

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman St
Pittsfield, MA 01201

RE: Housatonic River

Dear Ms. Svirsky,

I realize that there has been recent discussions about the Housatonic River and just a couple of months ago you received a proposal from General Electric regarding a Revised Correct Measures Study.

I wanted to take a moment and express my concerns and hope you will leave the River alone to recover naturally. There seems to be no evidence that anyone or living creature is being harmed by the current conditions that we see today. I believe that if we begin to tamper with the River it will cause unavoidable damage to the ecosystem and put a stop on all recreational activities that occurs today.

Please try to ensure that the solution for the River is reasonable and beneficial to the residents of Berkshire County and all the wildlife that surrounds the river.

Thanks!

Sincerely,

John S. Rys

RECEIVED
DEC 29 2010
By

DATE: 11-30-10

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

I am writing to comment on General Electric's Revised Corrective Measures Study which was submitted to you for review in October. Over the next few months, EPA will consider various options for cleaning up the rest of the Housatonic River. As a resident of , I urge you to protect the natural beauty and ecology of our River. There needs to be a reasonable, common sense approach to how that is done.

One of the choices is the Ecologically Sensitive Approach (ESA). I urge you to adopt this approach that will target areas of the riverbed, riverbank, forest and wetlands and Woods Pond. The ESA will make the river cleaner but will not destroy it in the process.

Please ensure that the residents of Berkshire County have a cleaner river that retains its scenic beauty.

Sincerely,

Elizabeth L. Salvatore
Dominic F. Salvatore

RECEIVED
DEC 03 2010
By

From:	John Sanders
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	GE and the Housatonic
Date:	Thursday, December 09, 2010 10:43:17 AM

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

John Sanders

Northampton MA

From: kristin homeyer
To: Susan Svirsky/R1/USEPA/US@EPA, kristin sanzone

Date: Tuesday, December 14, 2010 02:49PM
Subject: GE PCB River Clean-Up

History: This message has been forwarded.

December 14, 2010

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am a concerned citizen of Berkshire County and the mother of two young children.

I am writing to you in regards to General Electric's 2010 Corrective Measures Study.

I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you for taking public comments into the highest of consideration.

Sincerely,

Kristin Sanzone
New Marlborough, MA 01230

From: Rob Sanzone
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Thursday, December 16, 2010 02:49PM
Subject: GE PCB Clean up

History: This message has been forwarded.

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.
Rob Sanzone

P.S. - Your Children and Grandchildren will thank you :)
--
Rob Sanzone
Mass Music Lab

From: bbsaunders
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Sunday, December 26, 2010 11:06AM
Subject:

History: This message has been forwarded.

General Electric has killed the Housatonic River.
The idea that G.E. is trying to "save" some parts of the river is foolish.
Due to G.E. the river, surrounding areas and wildlife have been contaminated.
The only way to fix it, is to start over.
Indeed species may be lost and it will take years for vegetation to be restored.
The species that may be lost are *already* lost. They are contaminated and the contamination moves with them to other sites.
G.E. should not present themselves as saviors of this river.

Clean it ALL out. Move the PCB'S to the back yards of the people who say we have nothing to fear.

Thank you,

Bonnie Saunders

From: Barbara Witschonke
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Friday, December 03, 2010 05:10PM
Subject: Housatoni c River Cleanup

History: This message has been forwarded.

Dear Susan--

I want the EPA to know that GE must clean the River. My preference would be not to dredge. Pursuing other options that are less invasive is of utmost importance to me. There is talk of a bacteria which could destroy the PCBs, however it is not clear if the bacteria will work in the river itself. If dredging is the only alternative, then I would support that more than doing nothing.

Yours, Barbara Sblendorio

From: "Chris Schaefer"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Tuesday, December 14, 2010 01:57PM
Subject: GE and the Housatonic

History: This message has been forwarded.

Hello, I urge you to consider asking G.E. to further clean the Housatonic of PCB's as the fish and ducks of the river show high levels of PCB's. There ae a variety of remediation technologies to do this work and I,as a resident of Great Barrington,wish to see a cleaner river in the future. Christopher Schaefer Great Barrington, Mass.
Christopher Schaefer, Ph.D

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Wednesday, January 26, 2011 11:43 AM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (025114256) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:We know the results from the first effort, let's try another way.

03) Name:james schumacher

05) (required) State:ma

From: Robert Sedgwick
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Linda.Palmieri@WestonSolutions.com

Date: Monday, January 31, 2011 12:32PM
Subject: GE's proposed toxic waste dump site on Forest St

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Sincerely,

Robert & Annette Sedgwick

Attachments:

rs2499.vcf

From: Susan Svirsky/R1/USEPA/US
To: svirsky.susan@epa.gov

Date: Tuesday, January 11, 2011 01:57PM
Subject: Fw: PCB cleanup on the Housatonic River---Public comment received via email

---

From: Mark Shapp
To: Dean Tagliaferro/R1/USEPA/US@EPA
Date: 11/08/2010 05:33 PM
Subject: PCB cleanup on the Housatonic River

To Whom It May Concern at the Massachusetts Division of the U.S. Environmental Protection Agency:

We were absolutely appalled when we read of the proposal to create three toxic waste dumps at Lenox, Lee, and Housatonic, as outlined in the article "Future PCB dump" in the Ocober 22-28 issue of the Berkshire Record. We cannot imagine a more destructive way to address the issue of river cleanup than this. This is a bull in a china shop approach. This will destroy the beauty of this section of the Housatonic River Valley for decades. This is a cure that is worse than the disease.

The view of Woods Pond and the October Mountain Ridge, as seen from the Lenox Depot of the Berkshire Scenic Railway, is one of the most spectacular views in all of Berkshire County. We have canoed the Housatonic between New Lenox Road and the northern entrance to Woods Pond and the beauty of this whole area is a tremendous asset to the on-river communities and the tourists who come to experience our Beautiful Berkshires.

Removing the PCBs from the Housatonic River bed only to place them in concentrated amounts right along the river bank or in landfill that is contiguous to the river seems to be counterproductive. We would prefer that the river be left to heal itself, especially if the PCBs are to be dredged only to be re-deposited along the river just a short way downstream.

If the decision is the river must be cleared of PCBs then let it be really cleared and have the PCBs taken away from the river and disposed of as originally planned in registered toxic dump sites elsewhere which are willing to accept this material.

But when all is said and done, we do not want anyone coming and destroying our river in an attempt to save it. The Housatonic should be left alone to heal itself.

Mark Shapp
Jennifer H. Shapp
Lenox, MA

Housatonic River Clean Up

Bernie Shaw to Jim Murphy 01/31/2011 12:50 PM

Cc: rep.smittypignatelli, rep.christophersperanzo, Jason.Ostrander, benjamin.downing

January 31, 2011

Mr. Jim Murphy
Community Involvement Coordinator
EPA New England, Region 1
5 Post Office Square - Ste 100
Boston, MA 02109-3912

Dear Mr. Murphy:

We are residents of Lee, Massachusetts and live just a short walk from the Housatonic River. We enjoy the majestic beauty of the river every day, and we observe the birds, deer, otters, raccoons, possums, black bears, and other wildlife as we walk, bicycle, and kayak near and on the river.

We feel strongly about the General Electric Company's plan submitted to the public for clean up the rest of the Housatonic River in Berkshire County and are deeply concerned about the impact it will have below the area slated for Phase II of the clean-up.

In addition, tourism is a major force in our Berkshire economy. People from all over the country and the world visit our area for our cultural attractions and the scenic beauty. We urge you to consider alternative methods and solutions which are less invasive and damaging to the natural beauty of the Housatonic River.

Sincerely,

Bernie and Judy Shaw

Lee, MA 01238

cc: Senator John Kerry

Senator Scott Brown

Congressman John Olver

Senator Benjamin B. Downing

Representative William "Smitty" Pignatelli
Representative Christopher N. Speranzo

[Your Name] GEORGE E. Shippey
[Street Address]
[City, ST ZIP Code] Stockbridge, MA. 01262-1709
[Date] January 20, 2011

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky,

I write this letter to express my strong opposition to the clean up and dredging the entire stretch of the Housatonic River that flows from the Pomeroy Ave Bridge to Woods Pond. My concern also extends to the stockpile of extracted PCB laden sediment into a Berkshire County landfill. I would support the removal of PCBs from highly concentrated areas such as Woods Pond.

The clean up and dredging that occurred in the first two miles of the river, substantially altered the eco-systems and scarred the natural beauty of the river. The proposed PCB clean up of the river will destroy the largest wetland area in The Commonwealth west of the Connecticut River. This area acts as a nesting and respite area for thousands of migratory birds. The large population of Kayakers and Canoeists would be forced to abandon this area due to the large, jagged, and obstructing rocks which will destroy the hulls of most watercraft. The fish and wildlife will have no shade or natural obstructions to protect them from the rising river levels and the hot summer sun. The flow of the river, which has taken thousands of years to form, would be lost forever.

Please consider the contents of my letter before you make a decision to destroy one of the true jewels of the Berkshires.

Sincerely,

G.E. Shippey

[Your Name] GEORGE E. Shippey
[Title] Stockbridge Selectman
" " Conservation Commission
Chairman, Stockbridge Zebra Mussel Com.

RECEIVED
JAN 25 2011
By

From: Peter Skaller
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: Housatonic Rest of River public comments
Date: Sunday, December 12, 2010 9:27:25 PM
Attachments: EPA comments.doc

December 12, 2010

(also attached)

Dear Ms. Susan Svirsky, EPA Rest Of River Project Manager

Regarding the current issues around GE's proposals for remediation of the Housatonic River, we would like to offer the following thoughts:

Until there has been sufficient research, including on-site trials, into the use of new technologies for the dismantling of PCB molecules, we strongly urge holding off on approving any dredging operations. And here too, should findings indicate that currently known technologies are not suitable for the Housatonic River, we strongly urge considering the use of new approaches to dredging (such as are apparently in use in Europe) which minimize the escape of PCB-laden sediments into the river's flow. The release of pulses of high concentrations of PCBs from upstream dredgings may well pose a threat for the health of the river ecosystem downstream as well as downstream residents. Finally, we suggest a careful analysis of the risk/benefits of holding off on doing anything for a finite period during which promising new technologies are being developed, should current approaches be deemed not suitable.

GE's current suggestions of creating toxic dumps at various locations along the river (e.g. Lee, Housatonic) should be strongly opposed. The disposal sites already created in Pittsfield are a travesty and must not be repeated. Moving these substances to already existing toxic waste dumps might be preferable, but this approach would pose ethical problems unless such dumps can be shown to be significantly safer than dumping them in a high-population region such as the Housatonic River corridor. For this reason all alternatives must be thoroughly explored.

We would also suggest that the EPA organize educational sessions for communities potentially impacted by any future river cleansing. The people of this region need solid information to respond in a meaningful way. For example, we need to know about:

1. the actual levels of PCB contamination along the river, both in the water and in the sediments and also in the air, as well as in the riverine organisms of the Housatonic.

2. the current state of understanding of the human health risks of PCB exposure in relation to the observed PCB levels along the river, as well in the impacts on the biota of the river and the areas around it.

While some of the information is attainable online and in libraries, it is too much to ask the average citizen to undertake exhaustive research and interpretation of data. Concise presentations by independent experts would be extremely useful.

Thank you very much,

Rev. Dr. Peter Skaller

(PhD in Forest Ecology from SUNY ES&F)

Phyllis H. Skaller

Remedial Teacher

Housatonic, MA 01236

Bettie R. Smith to: Jim Murphy 01/31/2011 12:50 PM

Please leave this river alone. I have been to this area and it saddens me to think the beauty of it could be destroyed.

From: Ron Smith
Sent: Friday, January 07, 2011 11:56 AM
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: Housatonic

I live in Pittsfield on Onota lake.I did live in Lee for 30 years.I have used the Housatonic River and it's corrodor for years for canoeing,hunting and fishing.I would hate to see this beautiful river ruined in the process of trying to remove the PCBs. When I first canoed the river in the early 60s there would be oil or sludge slicks on the canoe and on the trees and plants on the bank-----but over the years the river (at least visualy)cleaned itself up.It is now a pleasure to use and view. The reason I mentioned Onota Lake is that this lake and most other lakes in Berkshire County are purposly treated with chemicals and poisons to kill invasive weeds so that these bodies of water can be used and appreciated.The river in it's present state can be used and appreciated,and gradually finish cleaning itself up. Please don't let this river be destroyed. If you have to address the PCBs at some level,I do favor the ESA approach----The
"open trench"version is beyond comprehension. Ronald Smith Pittsfield
MA 01201

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Monday, January 24, 2011 12:06 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (023120608) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:Please assure that the clean-up of the Rest of the River be accomplished in as low an impact manner, specifically NOT including dredging and stockpiling, as responsibly possible, and in keeping with human health and welfare. I'd prefer that we leave the PCBs untouched to the dredging and riprapping in Pittsfield immediately south of the plant

03) Name:F. S. Smithers
04) Organization:Cain Hibbard & Myers
05) (required) State:MA

DATE: Nov. 24, 2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. As a resident of Adams, I urge you to take the course of Monitored Natural Recovery. Over the past years, we have seen less and less PCBs in the River. Any disruption to the riverbed and riverbanks will churn up PCBs and will have a significant negative impact on the river itself as well as on the plants and animals along its banks. And without a doubt the people who live along the River and in the nearby communities will face all of the negative impacts that digging up the River will cause.

Please do not force GE to take actions that will destroy our river.

Sincerely,

Leonard + Pauline Sniezek

Adams, Ma. 01220

RECEIVED
NOV 29 2010
By

Housatonic River cleanup

Gary Soucie to Jim Murphy 01/28/2011 04:40 PM

Cc: rep.christophersperanzo, bdowning

Sir:

As a fisherman, I certainly want the Housatonic cleaned of PCBs.

But certainly EPA and whoever it contracts to tdo the work can find a solution that is more environmentally sensitive to the banks and surrounding habitat than was the case in Phase I.

Gary Soucie
"I never met a fish I didn't like."

Williamstown, MA 01267

Formerly:
Co-founder and vice-charman, League of Conservation Voters
Executive director, Friends of the Earth
President, Environmental Policy Center
Eastern representative, Sierra Club
Boardmember, Berkshire-Litchfield Environmental Coordinating Council
President, Hoffmann Bird Club
Executive editor, *Audubon*

Ms. Susan Svirsky
River Project Manager
Pittsfield, Mass. 01201

Dear Ms. Svirsky:

My attachment to the Housatonic River in the Berkshires is long-standing and devoted. How devoted- well to the point that at the time of my eventual demise I have requested that my ashes be scattered by Woods Pond- that's how attached to the waterway I have become. So, when I say I strongly and respectfully request you give your utmost consideration to an approach to clean up the Housatonic without dredging the heck out of the river it's because I see the pros of not beating up the river as far, far outweighing the alternative- aesthetically, environmentally and selfishly as it may seem, from the perspective of years of not seeing the beauty of the place as we have gotten to know and love it if the traumatic alternatives are chosen.

Sincerely yours,

Jesse I. Spector M.D.

Lenox, Mass. 01201

RECEIVED
JAN 28 2011
By

From: "Patty Spector"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Tuesday, January 25, 2011 09:13PM
Subject: Housatonic River

Dear Ms Svirsky,

I am writing to you as a paddler who puts my canoe in the Housatonic River about 200 days a year. I have written to you in the past to implore the EPA to make sound judgements on the future of the Housatonic River, the watershed and the flora and fauna that inhabit the area. To dredge the Housatonic would cause major disruptions of wildlife which may never recover due to the changes in plant life in and out of the water and the bottom composition. Once you strip the land, invasive plant life moves in quickly and takes over, native resurgence of plants would not have a chance to re-establish.

The bottom of the river changes constantly especially with heavy water flow due to storms. The river has experienced more changes since the Pittsfield dredging has taken place and now, in low water, the river is impassable in sections due to sand bars down the middle of the river. To call for the river to be a 'swimming hole' is ridiculous, it never was and never will be due to the depth of the river and the build-up of organic matter from plant and animal life. In the summer, much of the river is too shallow to even paddle let alone swim and the bugs are fierce, not an idyllic swimming hole.

I would like to see contaminated soil removed from Woods Pond (or other proven hot spots) over a number of years as new soil naturally drains into the basin and builds up. The issue of creating a hazardous waste landfill is more than controversial. Hazardous IS hazardous whether it's in the river or above ground, to landfill waste without destroying contaminated matter is a serious health issue to humans, animals and surrounding plant life, no different than being in the river.

To say that the river would recover in 50 years is way beyond the time that I have to paddle this remarkable natural area. Please proceed with caution and sensibility when determining the course of action. Having GE provide funding for future, more acceptable alternatives than are currently available today is a good start.

Thank you, Patty Spector, Lenox, Ma.

12/13/10

TO; Susan Svirsky, EPA Rest of River Project Manager
C/o Weston Solutions,
10 Lyman St.
Pittsfield, MA. 01201

RECEIVED
DEC 15 2010
By

When G.E. was in full transformer prodution and making lots of money, the Goverment allowed G.E. to save money by dumping its unusable waste in a way that the residents of the Berkshires would not see; ie "in the river". Now the EPA (goverment) will give G.E. the easy way out or freepass to move the piles again. Moving the toxic waste piles to another location, saves G.E. money again.

Our comment will discuss commen sense + responsibilities, it will not contain bad decisions or approaches that G.E. finds a Good Alternatives! Cement rivers, PCB School Playground piles, PCB under parking lots, Ball fields and Playgrounds, or free contaminated soil. Scientific tests say PCB become airborne and causes human disease. Example! Turtles or fish can not be removed from the Housatonic river, or it will be considered a superfund site

Berkshire residents wonder how a judge would rule if a citizen dumped garbage on your private property or land. First you would get a witness, plate # or look through the trash for a name. Then an arrest would be made. At court the judge would make the defendant pay for or do a complete clean-up.

Susan if I visited you and spilled milk, do you take the sponge and throw it in the closet, as a clean-up. After a few days the smell would get to you. The same applies to PCB's. Please reject all dumps, and send the toxic waste back to G.E. headquarter in Albany, N.Y., or burn them in the PCB disposal plant in texas. Also please schedule several live public meetings for comment in multiple towns in Berkshire County.

Thank-you,

Richard Strampach + Heather Landry

Southfield MA 01259

12/13/10 Heather Landry 12/13/10

N I C K S T A N T O N

December 12th 2010

Susan Svirsky,
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

To Susan Svirsky:

I recently visited GE's webpage "Options for the Housatonic - What we already know". One of the first entries on that page is "There is no reliable evidence that exposure to PCBs at the levels found in the Housatonic are associated with adverse health effects in humans."

That entry epitomizes the real problem: "There is no reliable evidence...". Not only is there no reliable evidence of the bad effects of PCB's on human health, there is also no reliable evidence on alternatives to dredging, other than GE's preferred option: "do nothing" and there is no evidence for that either! One could easily get distracted by asking why there is no reliable evidence after years of public exposure to this highly toxic chemical, but that would only play into GE's strategy of obfuscation.

The next step needed in the clean-up process is for GE to pay for "reliable evidence" from independent sources to determine answers to questions such as:

- What are the risks to human, animal and environmental health?
- How severe are those risks?
- What are the possible methods for remediation?
- What are the effective methods for remediation?
- In what types of locations are the various methods optimally effective?

An informal review of the incidence of cancer around areas of exposure in Pittsfield makes it clear that there is a major health issue. That there has been no publicly funded, reliable research into this is an indication of a public health issue being badly handled. It is time for this to stop.

Proposing to create PCB dumps on the river banks is so obviously a bad idea, it appears to be a scare tactic on the part of GE, designed to have public opinion come out in favor of doing nothing. Doing nothing is not an option.

The only acceptable plan is a comprehensive cleanup, based on proper research into effective and appropriate ways to restore the Housatonic River and provide the people and wildlife of Berkshire County the River they deserve.

Sincerely,

Nick Stanton

cc: Tim Gray

RECEIVED
DEC 20 2010
By

GREAT BARRINGTON, MA 01230
PHONE: FAX:
email: ngs

Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

RE: Housatonic River – Rest of River Revised
Corrective Measures Study

Dear Ms. Svirksy:

We are in support of the letter from Nathaniel W. Karns, Executive Director, BRPC. We agree with the proposal in Mr. Karns' letter to approach the problem using a strategy of active adaptive management which could also be called a pilot program approach.

We believe the goal must be to destroy the toxins. The GE Plan merely redistributes the toxins to other sites. This is unacceptable to us as it does not protect the health of people or the environment.

We have learned from two companies, Genesis and BioTech Restorations, about an alternative way to biologically destroy the PCBs. They have developed methods that have worked in other places and deserve to be tried on the Housatonic. We strongly urge the EPA to develop a plan that requires GE to use a pilot program approach, starting with the next short section of the river using a promising method, followed by evaluation, adjustment or change and proceeding to the next section informed by the learning.

As part of the settlement of the motion to intervene filed by HRI in 2000 EPA Region I Administrator Mindy Luber commited to investigate alternatives. We believe it will serve all parties in this process if that commitment is honored.

GE has said on their website, "There is no reliable evidence that exposure to PCBs at the levels found in the Housatonic are associated with adverse health effects in humans." There is also no reliable evidence that they are safe at those levels. We believe that the GE statement is not true and we are not willing to be the guinea pigs to find out years from now that there <u>are</u> adverse health effects. We want the PCBs destroyed not moved to someone's backyard. Toxic landfill liners are not guaranteed to contain PCBs.

We conducted a simple one question survey to determine the level of support for this approach 15% of those surveyed responded and 100% of the respondents voted in favor of this approach.

Sincerely,

Nick Stanton, Phyllis Skaller, Peter Skaller, Shea Potoski, Marguerite de Santis

Nick Stanton Phyllis Skaller (other signatures on file.)

Great Barrington, MA 01230

RECEIVED
FEB 01 2011
By

From: Tracey Steady
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Saturday, December 11, 2010 06:08PM
Subject: Housatoni c River

History: This message has been forwarded.

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Sincerely,

Tracey M. Steady

--
Confidential Communication:
This email message and any attachments are intended only for the addressee. This email and any attachments may be privileged, confidential, and protected from disclosure. If you are not the intended recipient, any dissemination, distribution, or copying is expressly prohibited. If you received this email message in error, please notify the sender immediately by replying to this email message.

Tracey Steady

From:	Barney Stein
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic River and General Electric Study
Date:	Wednesday, December 08, 2010 11:48:46 PM

To Susan Svirsky, Environmental Protection Agency Restof River Project Manager:

I am writing to you in regards toGeneral Electric's 2010 Corrective Measures Study. I believe it isinadequate in several important ways. It is important that GE take fullresponsibility for all its PCB-contamination of the Housatonic River and thatit undertake an ecologically-responsible cleanup to remove as much of thecontamination as is possible. It is not acceptable to claim that theriver is a healthy ecosystem. The fish and wildlife of the River havebeen poisoned, and people living around the river are exposed to serious healthrisks.

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Finally, only a comprehensive cleanupwill restore the Housatonic River and provide not only the people but the wildlifeof Berkshire County the River they deserve.

Thank you.

Barney Stein
West Stockbridge, MA 01266

From:	Cecile Stein
To:	Palmieri, Linda; svirsky.susan@epa.gov
Subject:	[BULK] Toxic Waste on Forest St., Lee, MA
Date:	Sunday, December 05, 2010 8:21:11 PM
Importance:	Low

Dear Ms. Svirsky and Ms. Palmieri:

My family and I are greatly disturbed by the EPA's proposal to store toxic waste on Forest St in Lee, MA near the watershed. It is so evident from the research how PCBs will effect the health of children, adults and seniors. I'm aghast at the heartless disregard for our health by storing toxic waste within our community. This is not empty land. People live here. Any accidental leakage would result in major well-deserved legal action against the EPA.
We urge you to find a storage area that does not affect people. The Berkshires has many areas of open land to consider for such storage, rather than in residential communities.

Sincerely,

Cecile and Michael Stein
Tyringham, MA

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Saturday, January 22, 2011 11:13 AM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (021111238) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:Please recommend that the Housatonic River Clean Up Process be a low/lower impact clean up and NOT dredging.

03) Name:Betsy Strickler

05) (required) State:MA

From:	Brenda & Christopher Stygar
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic River clean-up
Date:	Sunday, December 12, 2010 7:52:06 PM

Susan Svirsky:

I lived in Pittsfield, MA for half of my life. Some of my family members still live there and I visit them and friends on a regular basis. I am writing to you because I want to urge you to insist that GE take full responsibility to clean the Housatonic River of PCBs. The GE has polluted the river for years and currently plans to create PCB dumps in or along side the river.

Please provide the community and surrounding area a comprehensive clean up program that includes non-intrusive dredging and/or use the best technology to remove the contamination. Please also continue to oversee or inspect on a regular basis our river to ensure a healthy environment for the wildlife and people of Berkshire County.

Thank you!
Brenda Steady Stygar

DATE: 12-15-10

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. As a resident of Lanesborough I urge you to take the course of Monitored Natural Recovery. Over the past years, we have seen less and less PCBs in the River. Any disruption to the riverbed and riverbanks will churn up PCBs and will have a significant negative impact on the river itself as well as on the plants and animals along its banks. And without a doubt the people who live along the River and in the nearby communities will face all of the negative impacts that digging up the River will cause.

Please do not force GE to take actions that will destroy our river.

Sincerely,

Richard J. Tatro

RECEIVED
DEC 17 2010
By

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Tuesday, January 25, 2011 11:11 AM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (024111122) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:I am in agreeance with the fact that G.E. is responsible for removing the PCBs from the Housatonic River. The big question is "How it is done." In the past, cleanup efforts have involved major,destructive,"out dated" dredging techniques that pile the PCB laiden soils on the banks or in close proximity to the river vulnerable to leaching and transpiration into the air leading to even more health hazards. The technology exists here and now for noninvasive techniques to be utilized during this cleanup effort. So I am asking EPA to consider this technology before the cleanup begins. Please visit www.geosolve-inc.com and Genisisfluidsolutions.com for more info. you'll be glad you did. Thank you for your time!

03) Name:Keith L Tawczynski
04) Organization:Taft Farm inc.
05) (required) State:Ma

January 5, 2010

George W. Thomson

Lee, MA 01238

Dear Susan:

I am a lifelong resident of Lee, MA and have always enjoyed fishing, hunting and kayaking along the Housatonic River.

I am writing to beg all involved in making the cleanup decision to take the least destructive route in the cleanup to preserve the breathtaking views along the rink and riverbank, and to preserve the habitat for the wildlife.

Also, we do not need a landfill full of PCB's to destroy another parcel of our environment in Berkshire County.

Thank you for this consideration.

Sincerely,
George Thomson
George W. Thomson

Lee, MA 01238

RECEIVED
JAN 21 2011
By

From:	Liz Thompson
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	GE
Date:	Thursday, December 09, 2010 7:50:06 AM

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

Liz Thompson

DATE: 12/10/2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. Many options have been proposed for the cleanup of the River.

I fear that many of the proposed "remedies" will not be a benefit to the people of South Berkshire County or to the River itself. We must protect the River and what it means to those of us who live here and to those who come to the area to enjoy what the Housatonic River and the abutting communities have to offer. I think that it would be best to leave the River alone to recover naturally. However, if something must be done, then let it be a reasonable middle ground. The study that GE submitted includes the Ecologically Sensitive Approach. That less damaging and targeted approach to cleanup is best for Berkshire County.

Please make sure that the answer for the River is reasonable and beneficial to the people, animals and plants that already thrive along its banks.

Sincerely,

Norman R. Thurston
Joan Thurston

Norman & Joan Thurston

Cheshire, MA 01225
413-743-0222

P.S. PLEASE DON'T RUIN THE AREA.

TIME SOMETIMES HEALS MORE THAN HARSH OVERREACTION. LET IT REST MONITOR VERY CAREFULLY FOR YEARS

THANKS
M.S.

RECEIVED
DEC 13 2010
By

From: Richard Tovell
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Christopher.Speranzo@mahouse.gov, rep.smitty@mahouse.gov, benjamin.downing@masenate.gov

Date: Friday, January 28, 2011 10:41AM
Subject: Housatonic River clean up

Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Richard Tovell

Housatonic, MA 01236
USA

From: JAMES TREMBLAY
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Saturday, December 11, 2010 11:40AM
Subject: Housatoni c River project

History: This message has been forwarded.

Dear Ms. Svirsky,

This is to strongly recommend that the next step in the remediation of the Housatonic River be either Monitored Natural Recovery or the Ecologically Sensitive Approach. I do not believe that the uncertain benefits of the SED 3/FP 3 are worth the ecological damage that this option would cause. The excavation of this stretch of the river and disposal of the excavation material would result in more of a threat to the environment than the presence of the reduced levels of PCBs that currently exist.

Some day some one may discover a way to more easily neutralize the effects of PCBs from the river; if the EPA opts to proceed with SED 3/FP 3, it will take decades for the ecology of this stretch of the Housatonic to be restored to anything approaching its current condition.

Thank you for consideration of my concerns.

James Tremblay

From:	Charles Truax
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda; Jules
Subject:	General Electric¹s 2010 Corrective Measures Study is inadequate and unacceptable
Date:	Tuesday, December 21, 2010 4:21:57 PM

Dear Susan Svirsky,

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric¹s 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible.

It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE¹s claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly, I urge the EPA to actively pursue a range of alternative remedial technologies technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.
Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you,

Charles Truax

housatonic
berkcountmod
to:
Susan Svirsky
01/04/2011 08:05 PM
Show Details

History: This message has been forwarded.

I am for the MONITORED NATURAL RECOVERY.
thank you
joe trybus
p.o.box 1687 / 75 orebed rd
Lanesborough, MA 01237

DATE: 12/2/10

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

I am writing to comment on General Electric's Revised Corrective Measures Study which was submitted to you for review in October. Over the next few months, EPA will consider various options for cleaning up the rest of the Housatonic River. As a resident of Pittsfield, I urge you to protect the natural beauty and ecology of our River. There needs to be a reasonable, common sense approach to how that is done.

One of the choices is the Ecologically Sensitive Approach (ESA). I urge you to adopt this approach that will target areas of the riverbed, riverbank, forest and wetlands and Woods Pond. The ESA will make the river cleaner but will not destroy it in the process.

Please ensure that the residents of Berkshire County have a cleaner river that retains its scenic beauty.

Sincerely,

Ann B. Tyler

Ann Tyler
Pittsfield, MA 01201

After viewing the CD that shows the effects of dumping and changing the river environment, I can't imagine leaving up our natural river banks & forests.

RECEIVED
DEC 08 2010
By

RECEIVED
DEC 13 2010
By

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Friday, January 28, 2011 4:36 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (027163536) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:Please use low-impact cleanup that doesn't include extensive dredging.
The area in Phase II of the clean up of the river flows through mainly wildlife and residential areas. Extensive dredging would devastate the River and negatively impact tourism, the Berkshire County economy and our quality of life for years, if not forever. Furthermore, as we have seen with Phase I, physically removing portions of the river will unleash many of the toxins (PCBs) in the Phase II section of the river downstream, and threaten the wildlife that lives there.

03) Name:Ellen Van Dalinda

05) (required) State:MA

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Friday, January 28, 2011 7:40 PM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (027194025) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:As member of the Norman Rockwell Museum I support further attention to the plan for cleaning up the Housatonic River below Pittsfield. The previous strategies need revision.

03) Name:Julia Van Haaften

05) (required) State:NY

From: "Viale Insurance"
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, December 27, 2010 11:35AM
Subject: housa tonic river cleanup

History: This message has been forwarded.

Dear Susan,

I, am writting as a concerned resident of Lee.
I have used the resources of the Housatonic River for over
46 years for both hunting and fishing. I am now 59 years old.
The ecosystem of the river would truly be destroyed if any steps (1,2 or 3) of the clean up were taken. I feel that all clean up should be stopped now and go no further.
Thank You PAUL A. VIALE, LEE, MA.

REST OF RIVER PROJECT

TO: SUSAN SVIRSKY

I object to the 34 acre landfill located in a gravel pit on Forest St in Lee. I have hunted this area and for over 60 yrs. and I don't think it is the right thing to put mud laced with PCB'S in a gravel pit to slowly leach into the ground and get blown through the forest as it dries.

It's a strange think that when I was plant superintendent at Cap Filter we had to take material which was less toxic than PCB.S and place it in labeled drums made for this purpose and ~~it~~ truck away to a vault made for this purpose.

I have lived on forest St. for 75 yrs and I don't think that this poorly maintained road can stand extra truck traffic.

Lets do the right thing. Let G.E. put it in rail cars and take it some where else.

Carlton K. Vueland

RECEIVED
NOV 01 2010
By

From: Susan Wagner
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Sunday, December 12, 2010 09:50PM
Subject: Housatonic River - Important

History: This message has been forwarded.

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:

Thanks for listening and helping us clean up the Housatonic. It needs your help NOW.

I urge you to reject GEs claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.

I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Susan Wagner
New York, NY

From:	Paul Wainwright
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	HOUSATONIC RIVER CLEANUP
Date:	Thursday, December 09, 2010 11:14:13 PM

To Susan Svirsky
Environmental Protection Agency Rest of River Project Manager:
I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.
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Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.
Thank you.

Paul Wainwright
Pittsfield, MA 01201

January 19, 2011

Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky,

I am a constant user of the Housatonic River, paddling in my canoe from March until December. This letter is to express my strong opposition to the clean up and dredging the entire stretch of the Housatonic River that flows from the Pomeroy Ave Bridge to Woods Pond. While I support dredging Woods Pond, which I feel is a natural depository of the PCB sediment, I do not support depositing the sediment in Berkshire County or near any wildlife or waterway.

The clean up and dredging in the first two miles of the river, not only altered the eco-systems and scarred the natural beauty of the river, but was obviously a money maker for the people contracted to plant trees and grade. The current version does not encourage wildlife or recreation. Please don't repeat those mistakes.

The proposed PCB clean up of the river will destroy the largest wetland area in The Commonwealth west of the Connecticut River. This area acts as a nesting and respite area for thousands of migratory birds. The large population of Kayakers and Canoeists would be forced to abandon this area due to the large, jagged, and obstructing rocks which will destroy the hulls of most watercraft. The fish and wildlife will have no shade or natural obstructions to protect them from the rising river levels and the hot summer sun. The flow of the river, which has taken thousands of years to form, would be lost forever.

Please, please keep the river the way it is and focus on cleaning up where nature has deposited the worst - Wood's Pond..

Sincerely,

Laura L. Walton

Laura L. Walton

Richmond, MA 01254

RECEIVED
JAN 27 2011
By

From: **barbara watkins**
Date: Fri, Dec 10, 2010 at 12:01 AM
Subject: GE and PCB cleanup
To: svirsky.susan@epa.gov
Cc: linda.palmieri@westonsolutons.com

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

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And if the EPA chooses a cleanup program that involves dredging, we urge you to

employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Barbara Watkins

Great Barrington, MA

From: Nicole Webster
To: svirsky.susan@epa.gov; Palmieri, Linda
Subject: [BULK] GE and PCB Housatonic River Clean Up
Date: Friday, December 10, 2010 2:28:39 PM
Importance: Low

Susan Svirsky,
EPA Rest of River Project Manager
c/o Linda Palmieri of Weston Solutions

10 Lyman Street Pittsfield, MA 01201

To Susan Svirsky

Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.
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Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Thank you.

Nicole Webster
Lee, MA 01238

From: Wein
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Saturday, December 04, 2010 08:35PM
Subject: GE PDB Proposal

History: This message has been forwarded.

I would like to voice a very strong objection to the current proposal...In Lee, how can anyone even consider allowing PCB's so close to water and flood plain areas? Let GE ship their waste out of state!

Penny Wein
concerned Goose Pond resident
Tyringham

Smart Clean Up Coalition

Federal House Inn to: Jim Murphy

01/28/2011 04:43 PM

Dear Jim Murphy,
We would like to voice our support for a low impact clean up solution to the Housatonic River that does not include extensive dredging. It is CRUCIAL to save the integrity of the river to those of us who live and work in the Berkshires as well as to the tourist industry in the area.

Thank you and regards,
Kolleen and Brian Weinrich

Federal House Inn
Route 102, P.O. Box 248, South Lee, Massachusetts 01260
(800) 243-1824

Brian & Kolleen Weinrich - Innkeepers

Susan Svirsky
EPA Rest of River Project Manager
Pittsfield, MA 01201
Svirsky.susan@epa.gov

Rene Wendell

Pittsfield, MA 01201

Dear Ms Svirsky,

Thank you and the EPA for all you have done and for accepting these informal comments on General Electric's (GE) "Rest of the River" cleanup plan for the Housatonic River. I find the plan that GE submitted is inadequate for cleaning up the river and bad for Berkshire County.

Monitored Natural Recovery should not be an option for cleaning up PCB.s. GE should remove as much pollutants as possible from the river and not be leaving them there and watching them. This is ridiculous. That being said, there is room for caution and to move slowly with the cleanup.

A deal that limits what sort of strategies that can be used in the future is undesirable. GE should not be locked down into only dredging and rip rap for example. There should be in place a system where new and emerging technologies can be utilized. This cleanup will take decades and there is no way of knowing if better and more ecologically sensitive ways to remove PCB's from the river will be discovered. Already, I have heard of new technologies and they should be tried out and tested on the river by another independent party but funded by GE.

A cleanup should begin with dredging the most polluted "hotspots" like Wood's Pond and then proceed to more sensitive areas like floodplains, embankments, and oxbow lakes. I am not a fan of the rip rap that was installed in the Pittsfield stretch of river. This should be avoided at all costs and only used when direly needed. A channelized river is not an option for this stretch.

I am not in favor of any more PCB dumps along the river. GE should be made to remove the PCB's to a proper landfill where they can be stored safely. And, if thermal desorption is considered as an option then it should be done as safely as possible. The incinerator should be of the highest

quality and treat the PCB's without causing more pollution in the burning process (like releasing dioxins).

Restoration should be of the highest standard. There should be animal and plant surveys for every mile of river that is cleaned and disturbed. With that data, restoration should be done with those specific species. Plant species should be restored from local, native seed stock. Extreme care should be given in sensitive areas and rare species avoided and protected. Any invasive species should be removed from the river area. Also, this cleanup and its disturbance will encourage invasive plants species to grow. GE should be required to remove them in the many years to follow after the river is cleaned.

Lastly, all areas of the river should be looked at for cleaning. This includes from the source to the sound. Connecticut and its PCB's are woefully ignored by GE in their proposed cleanup. All sources of further contamination should be reexamined. The outflows from Silver Lake and Unkament brook should be tested and scrutinized. There is no point in cleaning up this stretch of river if it will be recontaminated by PCB's still in Silver Lake. Upstream levels of pollution should be tested. If there is pollution upstream of Pittsfield this should be cleaned up as well even if it is outside of GE's zone.

We in Berkshire County deserve a clean river. I lead canoe trips on the Housatonic and I wish it was as clean as it was before GE befouled it. Unfortunately, I didn't have a say on what happened back then. I do now though and I thank you for considering my input. Please, do what is best and right for the river and the community that loves it. I hope you have a happy holiday season.

Rene Wendell

Gloria J Wesley

Pittsfield MA 01201
1/20/2011

Ms. Susan Svirsky
EPA Rest of River Manager
C/O Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Ms. Svirsky,

I would like to express my concerns in regards to the possible clean up/ dredging of the Housatonic River in Pittsfield/Lenox. I would like to see GE working on less invasive options. In the mean time I don't see the benefit of destroying the eco system surrounding the Housatonic.

I live on the river and I paddle on it almost daily in the summer and at times in the winter as well. I see so much wild life from all kinds of birds and mammals on a daily basis. Each spring, I see at least one bear with cubs come to the river to eat skunk cabbage. What are they going to do? It would truly be a shame to destroy all of this to rid the river of PCB's. Isn't the idea of getting rid of the PCB's supposed to save the wildlife that relies on the river? I don't see the benefit.

GE wouldn't really be getting rid of the PCB's anyway. They would just be moving them to another place. They need to work on a method that dissolves or otherwise rids the environment of PCB's whether it takes 10 days or 10 year to develop. It is going to take that long to "clean" the river anyway.

The river has etched away it own banks, changing course over time, creating oxbows and ponds that make it beautiful, taking on a life of it's own. To replace it with a stone concourse would be an insult to nature. The upper part of the river was not affected as much because its course had already been altered years ago to tame its wonderings for the benefit human development but the lower part has been spared this insult, at least so far.

We can always go back and dredge the river if it is decided it has to be done. But it doesn't have to be done if an alternative can be found. Let's push GE to find a real solution.

Thanks you for your time,

Gloria J Wesley

Gloria Wesley

RECEIVED
JAN 25 2011
By

DATE: November 25, 2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. As a resident of Pittsfield, I urge you to take the course of Monitored Natural Recovery. Over the past years, we have seen less and less PCBs in the River. Any disruption to the riverbed and riverbanks will churn up PCBs and will have a significant negative impact on the river itself as well as on the plants and animals along its banks. And without a doubt the people who live along the River and in the nearby communities will face all of the negative impacts that digging up the River will cause.

Please do not force GE to take actions that will destroy our river.

Sincerely,

Dale T Wheaton

Pittsfield, MA
01201

RECEIVED
NOV 29 2010
By

DATE: November 25 2010

Mr. Jim Murphy
EPA Community Involvement Coordinator
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Dear Mr. Murphy:

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to EPA for review. Many options have been proposed for the cleanup of the River.

I fear that many of the proposed "remedies" will not be a benefit to the people of South Berkshire County or to the River itself. We must protect the River and what it means to those of us who live here and to those who come to the area to enjoy what the Housatonic River and the abutting communities have to offer. I think that it would be best to leave the River alone to recover naturally. However, if something must be done, then let it be a reasonable middle ground. The study that GE submitted includes the Ecologically Sensitive Approach. That less damaging and targeted approach to cleanup is best for Berkshire County.

Please make sure that the answer for the River is reasonable and beneficial to the people, animals and plants that already thrive along its banks.

Sincerely,

Peter A. Wheaton

Pittsfield, MA 01201

RECEIVED
NOV 29 2010
By

From: Meanwheels
Sent: Friday, January 21, 2011 10:27 AM
To: svirsky.susan@epa.gov
Cc: Palmieri, Linda
Subject: [BULK] Ge corrective measures

Importance: Low

I am writing about the latest corrective measures proposed by GE. I live on the river just south of New Lenox Rd in Lenox and see the river daily and kayak it frequently. We can't eat the fish or swim in it due to the health effects. This is a shame.

The solutions GE is proposing are not acceptable especially the proposal to site several landfills near Woods Pond or truck it off site. This makes no sense. There are new technologies that have been proven to actually get rid of the PCBs, not just land fill them until the next generation has to deal with them. And these newer technologies are less disruptive to the environment and ecosystem. Covering up the bottom of the river with sand is just plain ridiculous, that's not a solution, its just a delaying tactic- the PCBs will still be there- the EPA needs to demand that GE remove them from the river so they aren't a health threat to myself, my husband, my dogs and future owners of my property along this wild and beautiful stretch of the Housatonic. We have a birding list of over 110 species we have seen on our land- the PCBs are harming them.

I urge the EPA to allow a company like bio-tech restorations to do a pilot test so it can be reviewed not only by the EPA but GE and lay people like myself. If this new technology lives up to its billing it will be less expensive and a more eco-friendly way to clean the PCBs out of the river and hopefully out of oxbows, farmland etc along the river. It will get rid of the PCBs permanently not just moving or covering up the problem.

Thank you
Ruth Wheeler

Lenox Ma 01240

From: "Reid"
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: <rep.smitty@mahouse.gov>, <bdowning@bendowning.org>

Date: Monday, January 24, 2011 10:57PM
Subject: Housatonic River Project

To the attention of:
Susan Svirsky, EPA Rest of River Project Manager
Dear Ms Svirsky

Phase II of the Housatonic River flows through wildlife and residential areas. Extensive dredging would devastate the River, the Berkshire County economy and quality of life for decades, if not forever. We cannot allow this to happen. It is important that we advocate for a low-impact solution that still meets the EPA human health standards. Berkshire residents have an opportunity to make a difference on a very important matter affecting our entire community. I want to be one of the voices in this community that asks that the choices made are the correct ones, ones that protect us from:

-The radical dredging approach to the clean-up that would require the creation of permanent dumpsites located within Berkshire County to hold the contaminated soil removed from the river.

-PCB levels: Even after a large-scale dredging project that takes years to complete, PCB levels in fish would remain above the levels EPA considers safe for unrestricted human consumption.

-Damage to or wildlife and natural habitats: This part of the River is a natural untouched forested and wetlands area, abound with wildlife and recreational activities. This portion of the river flows through nature preserves and important cultural resources, which are critical components of the Berkshire economy.

The only Smart solution for clean-up is a Low-Impact Approach that will meet EPA human health standards while protecting the existing ecological and recreational resources of this portion of the river. It will disrupt less of the river and limit the impact on business and tourism during the clean-up process. This plan will protect the integrity of the river and the important role that it plays in the Berkshire County economy.

Thank you most sincerely.

Laird and Reid White

Lenox, MA 01240

From:	David Wimberly
To:	svirsky.susan@epa.gov; Palmieri, Linda
Subject:	Feedback on Housatonic clean up "rest of river"
Date:	Thursday, December 09, 2010 4:42:24 PM

Hi Susan, I would like to comment on the potential work being planned for the rest of the river. I was discussing my views on this and someone told me they were a little bit different than most and thought I should share.

I live in Pittsfield on Brunswick St. (not the side that abuts the river) and saw what happened to our beautiful resource in the clean up of that phase. I also paddle on the river often and value the natural beauty, ancient trees and abundant wildlife. I believe remediation should take into account those factors as well as human health.

Here are my comments:

Why and what we should do:

I believe the science is not completely settled on the risks of PCB's but clearly we need to clean them up. To settle the science once and for all, in my opinion, would require harmful human trials, but I'm satisfied looking at the correlative studies, because they seem to show a relationship. Therefore, my opinion is we need to do something. However, I do not accept that we need to destroy the entire river, its banks and associated flood plain, nor should we accept new infrastructure, dumps and other human intrusions on this wild space if at all possible. My governing philosophy on this, therefore, is we should do only what we know is safe and effective and ask the polluter to fund research into other options and hold them to this as long as is needed TO DO IT RIGHT.

Technology Options:

I am aware of studies linking airborne PCB's to high concentrations in humans therefore I do not want to see anymore of the destructive type of clean up done in Pittsfield that digs everything up and moves it around so as to release it into the air (as well as downriver). As a neighboring resident, I demand my government do the proper studies and tell us whether or not Pittsfield residents or Hudson River abutters have seen a rise in blood concentration levels since remediation, before any plan is accepted. This in my mind is imperative since we have two situations that could give us the data and it seems clear to a casual observer that remediation as done previously will put more PCB's into our environment. From TV video footage I saw of the Hudson clean up, dredging is also not acceptable. I saw tons of material falling back into the water with each dredge, releasing PCB's back into the water. Additionally, in the Pittsfield clean up we removed everything. We also should look at what happened to aquatic life by removing the entire biological column in the river bed. How can millennia of equilibrium come back if we've removed all the bacteria, for example?

Therefore, dredging and total material removal are not viable options. We should use technology that removes sediment with the water flow in place and processes it onsite to isolate the PCB's and take them away. If this technology is not fully developed, we should do nothing at this time except require GE to develop the technology.

How Much to Clean:

I would like to see the EPA require GE to remove sediment from Woods Pond that is contaminated, and other highly contaminated areas along the river where the sediment can be removed without destroying the banks ONLY when they have developed technology to do this cleanly and ONLY if all disturbed areas including roads and staging areas and filled wetlands are restored. I would accept remediating the river banks only if they are not stable and only if they are put back as they are now...mud banks, not ugly white stones. Additionally we should require GE to remove soils from the most contaminated portions of the flood plain but only where it can be done without damaging the wild nature of this area. No new roads that are not removed and replanted. No dumps.

Any additional clean up should not be done until better technology is available. Most importantly, we absolutely must not accept destroying the beauty and habitat that this river provides. NO REMOVAL of

the centuries old trees that line the banks, no white rip rap and no non native species in the riparian area. If we end up with what we have in Pittsfield, we surely will have ruined this river, as I can attest to every time I look out my window. There is no need to rush if current technology is not good enough.

Thank you for your consideration of my comments. Good luck with this immense, and immensely important, project.
-
David Wimberly

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Chris and Jennifer Windram

Housatonic, MA 01236

12/7/10

Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman St
Pittsfield, MA
01201

Dear Ms. Svirsky

I am writing to you today to express my strong support for full cleanup of the Housatonic River as it relates to the EPA's consideration of cleanup of the "Rest of River". As a citizen of the United States, and specifically of Berkshire County, Massachusetts, who has lived within one-quarter mile of the Housatonic River for the past twenty years, I am greatly concerned about the serious health risks to myself and my family, and also about the grave risks to the environment posed by the PCB contamination that was created by General Electric, of both the Housatonic River, and many industrial and residential areas in the city of Pittsfield, Massachusetts.

The scientific evidence showing great risks to both human health and the environment from PCBs has become overwhelming. I urge you to stand strong and enforce the cleanup of the Housatonic River to ensure the protection of the health of the people, communities, and ecosystems of Berkshire County, Massachusetts, as required by US laws. The pollution of the town and river by GE were prohibited by law at the time that it occurred, and it remains so. The evidence has shown that PCB contamination creates immediate heath risks to both people and the environment in areas surrounding the contamination, and that PCBs spread quickly through the food chain to affect the ecology of our entire planet. The additional fact that PCBs can volatilize from contaminated sites into the air should be of grave concern to anyone who breathes! In light of the outright prohibition of PCB manufacture by US laws due to overwhelming evidence of harm to human health, it seems clear we must do everything within our power to clean up PCB contamination wherever it is identified.

RECEIVED
DEC 08 2010
By

I have come to understand that at least one of the actions GE has proposed with regard to cleanup includes the construction of landfills for PCB contaminated sediment storage near or adjacent to the river in the areas near Woods Pond,

Lenoxdale, and Rising Pond, Housatonic, among others. Please, reject those proposals and adopt the EPA's own recommendations for storage in pre-existing facilities not located in Berkshire County, Massachusetts. I would also suggest even more strongly the consideration of emerging remediation technologies, including the "Bio-Tech Restoration" processes developed by GeoSolve Inc, that have recently had success in California sites. I don't know much about these technologies, but any chance that they could offer real in-site remediation should compel us to give them our serious consideration.

I understand that there are some concerns by a few local citizens about the temporary disruption to the environment that the cleanup of the "Rest of River" may create, but I must state the I feel most strongly that the benefits of full cleanup of the Housatonic River to protect human health and restore the environment far outweighs the inconvenience of any such temporary disruptions.

Let me further state that my business in the past included guided fishing trips on the Housatonic River, but that I have ceased this activity out of concern for my own health and that of my clients. The irresponsible actions of GE in polluting this river have created a situation that includes financial harm to other businesses and individuals in addition to harm to both human health and the environment, a further reason that cleanup should go forward.

I am most grateful for the efforts of the EPA in enforcing the cleanup of the first two miles of the river, and the contaminated residential and industrial sites in Pittsfield. That action has been a great step forward in protecting the health of the citizens of Pittsfield, and also that of the overall environment surrounding the Housatonic River in those areas. I urge you to continue these good works in protecting citizens and the environment as it relates to the "Rest of River".

Respectfully submitted,

Christopher J. Windram

Housatonic River Clean up

Terry Wise to Jim Murphy 01/31/2011 04:46 PM

Dear Mr. Murphy,

The U.S. Environmental Protection Agency (EPA) is about to make a recommendation on Phase II of the Housatonic River clean up, running from Pomeroy Avenue south to Woods Pond in Lenoxdale in Berkshire County, Massachusetts. Phase I, which has been completed, was located in a mostly industrial area in Pittsfield. It included a significant dredging effort, which permanently changed the landscape of the River.

The area in Phase II of the clean up of the river flows through mainly wildlife and residential areas. Extensive dredging would devastate the River and negatively impact tourism, the Berkshire County economy and our quality of life for years, if not forever. Furthermore, as we have seen with Phase I, physically removing portions of the river will unleash many of the toxins (PCBs) in the Phase II section of the river downstream, and threaten the wildlife that lives there.

I support a low-impact clean-up solution that does not include extensive dredging in order to save the integrity of the river. While GE should be held responsible for clean up of the PCBs, the economy and wildlife and residents of south Berkshire county should not pay the price of a devastated environment.

Sincerely,

Teresa B. Wise
Stockbridge, MA

From:	Charles I. Wohl
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic River
Date:	Tuesday, December 21, 2010 7:41:33 PM

Dear Susan:
As an avid fly fisherman and resident of Lenox, MA, I have fished, hiked, canoed, kayaked, and photographed wildlife all along the Housatonic River in Lenox, Lee, and Stockbridge. Before the GE clean up project, I used to enjoy these activities along the Pittsfield stretch of river above the confluence but can no longer do so because much of that part of the Housatonic now looks more like a drainage ditch than a river . I do not want to see the "Rest of the River" downstream from the confluence suffer the same fate. The river from the confluence of the three branches in Pittsfield to the Connecticut state line is truly glorious in appearance and provides refuge to wildlife in and around the river. It has attracted hikers, birders, canoeists, kayakers, photographers, fishermen and fisherwomen, and artists from all over the U.S. Eventually a bicycle path may run along parts of the river. GE must clean up the PCBs in the river, but must do so in an environmentally sensible manner that will preserve the nature and character of the river so that it will continue to support the diverse wildlife and provide recreation for those of us who enjoy beautiful rivers. I believe that the Ecologically Sensitive Approach (ESA) provides such a solution and ask that you support this as a sensible approach to the PCB contamination of the Housatonic River in Berkshire County. Thank you for your attention to this matter.
Charles I. Wohl, MD
Lenox, MA 01240

January 31, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Send by Email on January 31, 2011 to svirsky.susan@epa.gov

Dear Ms. Svirsky:

I wish to thank the EPA for extending the period of public comment through today, January 31, 2011. I trust the extra time has allowed more people to comment and allowed many of us to become better informed on this extremely complicated topic, which will have a profound impact on the Berkshires for decades to come.

I appreciated my earlier opportunities to speak with Ms. Kathy Poole and Mr. Rich DiNitto in my capacity as a Selectman for The Town of Sheffield. However, my comments expressed in this letter are as a private citizen.

I apologize for the length of this letter, however there are many items to discuss and I thank you in advance for considering my comments.

I believe the Rest of the River Project may be summed up in two questions:

1. What happens to the rest of the Housatonic River?
2. What happens to GE?

What happens to the Rest of the River is the question most of us may be focusing on. However before giving my thoughts on that matter, I do believe there is a strong feeling that GE "should pay" for its PCB pollution of the Housatonic River and further believe that there may be the feeling that if one of the more aggressive remediation alternatives is not implemented, GE will have been "let off the hook". But there are other ways to have GE pay for its pollution that do not demand such aggressive measures and I will suggest such an option later in this letter.

Assuming that "making GE pay" does not enter into the discussion of what course of remediation the EPA selects, I feel there are several questions to consider before a Rest of River solution is selected.

1. **Is the Rest of the River Project governed by the original Consent Decree?** I do not believe any of the communities now impacted by the Rest of the River Project were included in those discussions or signed off on the original Consent Decree.

Without re-opening the entire Consent Decree, I urge the EPA not to be trapped by this decree if it is no longer relevant or appropriate. Hundreds of millions of dollars and miles of the River, its ecosystems and communities are at stake. I applaud the efforts the EPA is making to include the rest of the communities and provide additional education and dialog.

2. **What are the objectives for the Rest of the River Project?** As the objectives drive the project, I urge the EPA to step back and review these objectives and make sure that they are still relevant and applicable to the remainder of the Housatonic River. I would appreciate knowing what these objectives are.

   For example, in its Executive Summary, GE indicates that no remediation alternative will allow fish be eaten without restriction, which implies that this is one of the objectives. While that may have been important in the past, is it still today? I do not believe the majority in the impacted communities would say this is a valid reason for aggressive dredging any section of the River. Catch and Release has become more popular amongst fisherman; I believe the public would be more appreciative of GE funding the efforts to keep zebra mussels out of Berkshire lakes and the Housatonic.

3. **Are the General Standards and Selection Decision Factors cited as the evaluation criteria in the selection of remediation alternatives appropriate?**

   - The specifics of the three General Standards cited are unknown to the impacted public. The current NPDES permit(s) imply that pipes at the former GE PCB site(s) continue to leak PCBs into the Housatonic River. If so, these leakages continue to contaminate the Housatonic River, in conflict with General Standard #2. River dredging releases and re-suspends some amount of the disturbed PCBs with the two-fold impact of contaminating downstream areas and creating airborne contamination. This would appear to be in conflict with General Standard #1.

   - *The Hudson River PCBs Site Peer Review of Phase 1 Dredging Final Report (September 2010)* calls into question the achievability of several of the Selection Decision Factors. While the Hudson River is not the Housatonic River, the issues are similar if not the same. The key points of the Report note the failure of Phase 1 and the predicted failure of Phase 2 to meet key 2004 Engineering Performance Standards, despite the extensive planning and modeling, and proposed changes, made by the EPA and GE. While this Report may inform the Rest of River Project, a major finding of this Report is that there is still much to be learned before the Rest of River Project sedimentation remediation is undertaken.

     The Report's findings may also question the belief that the removal of some PCBs is better than the removal of none, as it calls into question

whether the metrics used are proven as well as the predictability of extensive and intense modeling.

- While Short-Term Effectiveness is a Selection Decision Factor, long-term effectiveness and impacts are not included. I believe this is a major omission that requires immediate attention and inclusion.

  As you know, a portion of the impacted area has been designated by MA as an Area of Critical Environmental Concern (ACEC) in recognition of its quality, uniqueness and significance of its natural and cultural resources. There is no long-term impact discussion of this ecosystem. While trees and plant life will come back, these alone do not make an ecosystem. I do not believe there are many studies that show the diversity of an ecosystem recovering or being replicated to its original state once subject to the majority of the remediation alternatives detailed in the CMS.

  The majority of the MA impacted area depends on tourism, ecotourism and second homeowners as significant contributors to their economies. The economic profile of this area is markedly different than Eastern MA. Yet NO economic impacts are specifically listed – not even in the short-term effectiveness factor – other than cost. This factor does not indicate whether it is the cost to GE and/or to the communities.

  While the creation of jobs from several of the remediation options would have a short-term positive economic impact on the area, especially if the jobs were given to local companies, are the long term health impacts of PCB air volatilization on workers, as well as on those living by or using the River for recreational purposes, known? It is not unreasonable to expect significant short-term and long-term negative impacts on property values and tourism. It is prudent to ask up front what the impacts might be on existing or future business location or expansion in these impacted areas.

  Has any study been done to understand the possible negative economic impacts of SED 3 – SED 10, FP 2- FP9 and all of the TD alternatives? Will there be economic stigmas, or the Allendale School syndrome, attached to these areas of the Berkshires? Without study, answers are speculative. I urge the EPA to engage the MA Executive Office of Housing and Economic Development, MassDevelopment or the Berkshire Regional Planning Commission to study this matter.

- How does the EPA use these evaluation criteria to evaluate the trade offs of one PCB hazard versus another PCB hazard? The Rest of the River Project may be viewed as a resettlement program for the PCBs. Are the risks of leaving the PCBs in the Rest of the River, monitoring them and taking action(s) in the future if needed, less than or equal to the risks of any of the

other remediation alternatives proposed? If the risk is less than, the remediation alternative of Monitored Natural Recovery (MNR) SED 2 would be the logical choice. If the risk is equal to, the Monitored Natural Recovery (MNR) SED 2 remediation alternative would still be the best choice.

4. **How have the plans for Reach 9 - 17 been derived?** It is stated the EPA model was not designed to forecast concentrations of PCBs past Rising Pond Dam. While GE developed "a simplistic procedure" for results extrapolation for Reaches 9 – 17, given the experiences of past and current PCB remediation, as well as expected airborne and water borne PCB contamination from upstream dredging, floodplain disturbance and all of the disposition alternatives, I do not believe these areas have been given sufficient study or equal attention. As such, more needs to be done to understand the impacts of remediation alternatives on these areas.

With regard to the second question, "What happens to GE?", I believe there are additional options – possibly better options that specified in the CMS – which would require GE to compensate for its wrongs.

The option I have given serious consideration is to require GE to set up a secure, dedicated fund having two purposes: The first is to fund EPA to implement and study a Monitored Natural Recovery (MNR) SED 2.; the second is to fund the impacted communities.

If the EPA were to select the Monitored Natural Recovery (MNR) SED 2 alternative, it would have a working laboratory in which to track the natural recovery process; evaluate food chains and organisms; consider and recommend uses for impacted floodplains; conduct specific core testing; etc. It would provide the EPA funding to evaluate new technologies, such as those recently presented by Biotech Restorations and Genesis Fluid Solutions, as well as test and evaluate remediation alternatives without having to invest hundreds of millions of dollars or years of effort. This fund would not remove the ability of the EPA to require future remediation or other actions by GE. The immediate and long-term knowledge gained should assist the EPA and GE with the many other PCB sites still requiring remediation.

The second part of the fund would be used to assist impacted communities. The fund would guarantee an income stream to these communities to be used for purchase of lands impacted by the PCBs, such as floodplains, to assure that such lands are appropriately used, as well as funding to mitigate the potential economic loss of commercial or private development of land contaminated by PCBs.

This third party managed fund would look 25 years or more into the future and need to be secure from re-appropriation by either federal or state legislatures. GE would pay for its pollution and both the EPA and the impacted communities, by receiving fair payments, would be able to benefit fairly.

While I have presented this idea in a rudimentary manner, I believe it has merit and hope it will be explored. I see it as a potential win for the EPA, a win for the impacted communities, a win for the Housatonic River and a win for GE.

I have given the Rest of the River project serious attention over the past two months. While I had no clear leaning other than believing the two major remediation alternatives presented by GE were straw men, I have come to believe that overall SED 2, Monitored Natural Recovery, if combined with a trust fund as outlined above, is the best choice. I realize that a limited section(s) of the Housatonic River may require different remediation alternatives, I do not believe any of the involved parties will benefit from destroying the river to save it. I have seen rivers in California destroyed to tame them, and while not done for the same reason, the results I fear will be the same.

Thank you again for reading my letter and I look forward to attending your future outreach programs. Should you wish to discuss any of my comments, I may be reached at
or renecwood .

Sincerely,

Rene C. Wood

Rene C. Wood

Sheffield, MA 01257-1177

cc: Linda Palmieri; Linda.Palmieri@WestonSolutions.com

Senator **Benjamin B. Downing**; Benjamin.Downing@state.ma.us

Representative William "Smitty" Pignatelli (4th Berkshire District);
Rep.SmittyPignatelli@hou.state.ma.us

Representative Christopher N. Speranzo (3rd Berkshire District);
Rep.ChristopherSperanzo@Hou.State.MA.US

Congressman John Olver
78 Center Street
Pittsfield, MA 01202

Senator John Kerry
Springfield Federal Building
1550 Main Street – Suite 304
Springfield, MA 01101

Senator Scott Brown
2400 JFK Building
Boston, MA 02203

From: RWood35469
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Linda.Palmieri@WestonSolutions.com

Date: Wednesday, January 26, 2011 10:38AM
Subject: Rest of the River

26 January 2011

Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield MA 01201

Dear Ms. Svirsky,

There is only one solution to the PCB pollution problem of "the rest of the river". GE must be held responsible for the ***complete removal*** of PCBs. Their proposals, particularly as presented in their shameful piece of blatant propaganda, "Fate of a River", are completely inadequate. If the PCBs are not removed now they may never be. Both people and the animals of the Housatonic will be adversely affected for potentially thousands of years. GE willfully polluted the River. As one of the wealthiest corporations in the world they have the resources to do the cleanup properly and they should be held responsible for doing so.

Sincerely,

Ronald B. Woodland

Cummington MA 01026

p.s., I am a frequent canoeist on the Housatonic River. I feel the short-term disruption of the River is definitely worthwhile if this results in having a clean and safe river for the future.

From: Tim Wright
Sent: Tuesday, January 25, 2011 12:50 PM
To: svirsky.susan@epa.gov; Palmieri, Linda
Subject: [BULK] Remediation of Housatonic river in Berkshire County

Importance: Low

Dear Susan Svirsky
EPA Rest of River Project Manager

GE's answer to remediation of the Housatonic river is fatally flawed. To do nothing or dredge and dump is not a solution to a problem that will not go away due to the persistence and the toxicity of PCB's. Doing nothing will leave the toxins in place and allow them to permeate through the ecosystem at a rate related to the chlorine content of the PCB. Dumping the PCB contaminated soil into a lined enclosure will require monitoring and maintainance for a very long time to come nor does it guarantee safe storage of the PCB's in the soil. Dredging and dumping may prove to be a very expensive and will not solve the problem.

I urge the EPA to use the best available technology for the clean up of the Housatonic. A method that has been successful for remediation of chlorinated products in California is bioremediation. A company called Biotech Restorations has data showing successful bioremediation of chlorinated compounds such as DDT, dioxins and PCB's. In my view using bioremediation could be the most cost effective method for remediation of our river.

I think we should give Biotech Restorations samples of our PCB contaminated soil so they can develop remediation techniques specific for our soil types and conditions. Pilot scale remediation using contaminated soil from the Housatonic should then be done in Berkshire County to determine if the technology works to determine the viability of this option and procede from there. Thank you for considering my views.

Sincerely,

Timothy Wright

Pittsfield, MA 01201

From: jzahn
To: Susan Svirsky/R1/USEPA/US@EPA, Linda.Palmieri@WestonSolutions.com

Date: Tuesday, December 14, 2010 02:32PM
Subject: Fwd: Housatonic River - Important

History: This message has been forwarded.

Dear Friends of the Housatonic River,

The General Electric Company has issued its 2010 Corrective Measures Study for the Housatonic River. In it GE lays out several proposals for cleaning the river from Pittsfield south to Woods Pond.

The approach GE favors is to do nothing, claiming that the Housatonic is “flourishing” and that a substantial cleanup is nothing more than “destroying a river to clean it” and that "doing “less is more.” GE claims that if they are forced to clean the river they will need to create PCB dumps in the river at Woods Pond in Lenox or alongside the river in Lee and/or Rising Pond in Housatonic.

Please urge the EPA to make GE clean the Housatonic of the PCBs they have dumped. Housatonic fish and ducks have some of the highest levels of PCBs ever found in America. But most importantly, even though GE's website erroneously claims that there are no proven health risks to human beings from exposure to PCBs, the scientific evidence contradicts this claim. In fact, PCBs are extremely toxic to people. Simply avoiding eating fish from the River or not swimming in it will not protect us. PCBs from the river become airborne, so simply by living near the river, inhabitants are exposed to the hazards of PCBs just by breathing. However, even dredging and dumping pose serious risks and various methods for doing these need careful evaluation, as do completely different techniques for handling these toxic substances.

Therefore, we urge you to urge the EPA to vigorously insert itself into the decision-making process so that the best scientific data is independently brought to bear on what GE is required to do. To this end we have enclosed a sample letter to Susan Svirsky of the EPA for you to consider sending to her. Public comments on GE's proposals are due on or before December 15, 2010.

Thank you in advance for your support,
Judith Zahn

CITY/TOWN GOVERNMENT

The
City of
Pittsfield
MASSACHUSETTS
Mayor James M. Ruberto

January 24, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky,

As Mayor of the City of Pittsfield, I would like to comment on General Electric's Revised Corrective Measures Study as the EPA considers plans for cleaning the "Rest of the Housatonic River."

The City of Pittsfield has experienced an exciting renaissance during my administration, driven in part by the natural beauty of the surrounding region. While Pittsfield remains the commercial, financial, legal and health care center of the region, today our economy is also strongly driven by our role in the arts and our celebration of the natural beauty surrounding us. Building on this momentum, we are also actively partnering with business, civic, and cultural leaders throughout the County to define a new future economic vision for our region. This vision will draw heavily on our region's assets including its natural beauty, a unique quality of life, and a creative and educated workforce.

To sustain and reinforce Pittsfield and the Berkshires as a community and region focused on the Creative Economy, I believe EPA must take into account the economic, environmental and recreational role the Housatonic River plays in this revival. Over the last 10 years, an aggressive approach has been taken to rid the prime source of PCB contamination in the first two miles of the Housatonic River. While this approach dramatically reduced the level of contamination, unfortunately the bank to bank dredging resulted in substantially altering the eco system of the Housatonic River.

I would urge a different course of action for the balance of the river.

Clearly, the principle objectives for the remainder of the river should be to protect our residents' health and the river's ecosystem. This requires a balanced approach by recognizing that the County's economic vitality hinges on our ability to preserve the river's natural beauty and the diversity of life in this sensitive ecological habitat. Finally,

City Hall, 70 Allen Street, Pittsfield, MA 01201
Tel: 413.499.9321 / Fax: 413.499.9463 / jruberto@pittsfieldch.com

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we must ensure that the river continues to be recreationally accessible to our residents, visitors, and the sporting community.

Any plan for the rest of the river should recognize that levels of PCBs vary greatly along this stretch of the river, as the river itself has many natural variations, including width, depth, bank height, and estuaries. I believe a "one-size-fits-all" approach should be avoided. Certain areas will require a measured removal of sediment and soil while other areas should be left alone and simply monitored for ecological impact.

EPA should also give priority consideration to use of innovative technologies in this stretch of the river. There has been much community conversation around the use of technology to neutralize PCBs in the environment. To date, little has been done in this regard. We now have the perfect opportunity to use the Housatonic as a living laboratory. I encourage the use of emerging science in areas where PCB concentration is low.

In closing, I would suggest that the EPA consider a targeted, thoughtful and ecologically sensitive approach for the Housatonic River clean-up that is based on preserving the natural beauty of the river's existing environs while addressing in a targeted fashion those areas of most concern. Dredging should be limited, and take place only where it is absolutely necessary due to the concentration of contaminants. I hope you agree that this is the best way to preserve the river for future generations.

Sincerely,

James M. Ruberto
Mayor

Cc: Governor Deval Patrick
US Senator John Kerry
US Senator Scott Brown
Congressman John Olver
Secretary Richard Sullivan, EOEA
State Senator Benjamin Downing
State Representative Christopher Speranzo
State Representative Smitty Pignatelli
State Representative Paul Mark
State Representative Gailann Cariddi

Town of Lee
Office of the Selectmen
32 Main Street
Lee, Massachusetts 01238

Tel. (413) 243-5500
Fax (413) 243-5523
Website: lee.ma.us

December 13, 2010

Ms. Susan Svirsky
Mr. Jim Murphy
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Sir and Madam:

In the past few years, the Town of Lee has lost the major paper manufacturing industrial base with four papermills shutting down. These shutdowns have impacted not only the employees of the papermills but the entire Community. The paper companies have made serious efforts to sell the closed mills to developer and/or manufacturing concerns with no success to date. In particular, the Columbia Mill complex is a very undesirable site because of the issue with the Mill dam.

The Selectmen of the Town of Lee wish to go on record to indicate that the General Electric Company's Revised Corrective Measures Study should include a plan to deal with the Columba Mill Dam in Lee, Massachusetts. Many agencies such as American Rivers, Housatonic Valley Association and Commonwealth of Massachusetts Division of Ecological Restoration have indicated that they would be interested in working to breach the dam and restore a portion of the Housatonic River to a cold water fishery. Schweitzer Mauduit would also work with these agencies, but the issue of the PCB contamination around the dam creates so much potential liability and uncertainty that no practical plan can be implemented.

Every month that goes by is a loss of potential rehabilitation of an important part of the Town economy. We strongly urge that serious consideration be given to factoring this into any clean-up and recovery plan.

Very truly yours,

Gordon D. Bailey

Gordon D. Bailey, Chairman

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TOWNS OF LENOX, LEE, STOCKBRIDGE, GREAT BARRINGTON
BERKSHIRE COUNTY, MASSACHUSETTS

December 14, 2010

Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

RE: General Electric Revised Corrective Measures Study Report for the Housatonic River Site, Rest of River

Dear Ms. Svirsky,

The Selectboards from the towns of Lenox, Lee, Stockbridge and Great Barrington write with one unified voice to express our concerns and requests for the corrective measures that The EPA may soon be approving for the clean up of PCBs in the "rest of river" stretch of the Housatonic River. We wish to convey seven key points:

1) Third Party Public Education/Outreach: To begin, we want to express our strong concurrence with the request the Berkshire Regional Planning Commission put forth in their November 26, 2010 letter to you that non-advocacy, non-regulatory parties be empowered and provided resources to conduct a major public education and outreach effort about the options for PCB clean-up and potential impacts of the various options. We want to emphasize the need for including economic impacts. We believe that this effort is essential to the success of any clean-up action plan.

The four town consortium represented here is willing to take on the responsibility of hiring and overseeing the necessary parties to conduct this effort if we were to be provided the financial resources to do so. At a minimum, we feel that we should be provided funds to hire an impartial and unaffiliated advisor to help us sort out the often conflicting information related to the PCBs, clean-up efforts and impacts.

2) Target "hotspots" for immediate clean-up: There are high concentrations of PCBs in numerous areas. To be included are the dam impoundments in South County. These areas of concentrated PCBs should be removed as soon as possible.

3) Reserve option for new techniques: Ideally, we prefer a clean-up effort that achieves decontamination without major disturbance to the existing ecology of the river, the riverbanks and the floodplains. If such techniques are not available today we should keep the option of

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utilizing such techniques if and when they become available in the future. While dredging/soil removal may be necessary for removing "hotspots" we are anxious to use less disruptive techniques for the majority of the river.

4) No new PCB waste dump: We are adamantly opposed to creating any new permanent solid waste storage facility for PCBs in Berkshire County.

5) Maximize the use of railroad cars: We urge that truck traffic be kept as low as possible by utilizing rail transport. We request that road damage by any truck traffic be carefully monitored and any required repairs be made part of the remediation effort.

6) Create recreation/bike paths: As part of the restoration efforts new recreation paths should be created along the river. It should be relatively easy to create the paths given the creation of new access points the clean-up effort will necessitate.

7) Endow an economic revitalization fund: GE should be required to make a substantial contribution to a new economic revitalization fund that will be used by South County communities heavily impacted by the presence of PCBs and the clean-up efforts. Make no mistake – the contamination of the river continues to cause economic hardships in South County and the clean-up efforts will exacerbate this negative impact. Funds are needed to implement economic revitalization plans as we seek to re-build our damaged economies.

As anxious as everyone is to decide on the steps to be taken to clean-up the "rest of river" we urge that we take the time to get it right. This means taking the time to have a comprehensive education and outreach effort, that we remain flexible to take advantage of new techniques that become available and that we pay attention to the economic impacts of what has and what will be occurring. We look forward to in-depth engagement with all the parties as we work toward good solutions.

Sincerely,

Kimberly R. Flynn
Lenox Selectboard Chair

Gordon Bailey
Lee Selectboard Chair

Sean Stanton
Great Barrington Selectboard Chair

Robert Flower
Stockbridge Selectboard Chair

Cc: The Honorable John Kerry, US Senator
The Honorable Scott Brown, US Senator
The Honorable John Olver, US Representative
The Honorable Patrick Deval, Governor
The Honorable Benjamin Downing, State Senator
The Honorable Smitty Pigattelli, State Representative
The Honorable Christopher Speranzo, State Representative
Mr. Curt Spalding, Director, EPA New England
Mr. Ian Bowles, Secretary, Exec. Office of Energy and Environmental Affairs

PLANNING BOARD
Town Hall
Great Barrington, MA 01230

January 29, 2011

Susan Svirsky, EPA Rest of River Project Manager
C/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201 By email to: susan.svirsky@epa.gov
cc: Linda.Palmieri@WestonSolutions.com

RE: General Electric Revised Corrective Measures Study Report for the Housatonic River Site, Rest of River

Dear Ms. Svirsky:

The Great Barrington Planning Board wishes to have the following facts considered:

1. An underlying principle of zoning is that all persons, rich or poor, and all businesses, large or small, must comply with applicable zoning bylaws. No land shall be used except as set forth in the Table of Use Regulations of the zoning bylaw. Any use of premises not expressly permitted is prohibited. The Great Barrington Zoning Bylaw does not allow a landfill or the storage of toxic materials on land in Great Barrington.

2. The land that we assume will be used for the storage of dredged waste material is zoned strictly for residential use and the storage of toxic waste is antithetical to residential uses.

3. No representative from General Electric has presented any plans or proposals for the use of land in Great Barrington. We would expect that any plans for land use would be made available and a presentation made to the Town, subject to technical review by independent experts at the expense of the proponent.

4. No representative of the Environmental Protection Agency has presented information or proposals to the Town of Great Barrington. We would expect the EPA to live up to its core mission of environmental protection and to provide education and assistance to the Town for the same purpose.

5. Our state and federal Senators and Representatives have not informed the Town of any plans to use portions of land in Great Barrington for the storage of PCBs.

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6. Our only knowledge of plans or proposals for storage of PCBs has been through articles in "The Berkshire Eagle" and "The Berkshire Record."

7. Portions of the land to be used are protected under the Rivers Protection Act and the Endangered Species Act.

8. In recent years our Fire District has been exploring well sites to serve as back-up water supply for the town of Great Barrington. Those activities have been focused in the Housatonic River valley north of our downtown and downstream (south) of the proposed landfill area. Since no wellhead is in place, the DEP has not yet mapped the aquifer and recharge area. Given the area of focus to date, it is highly likely that those vitally sensitive areas would encompass the proposed site. It would be an error of the highest magnitude to deny the Town of Great Barrington a critical public water supply to accommodate the storage of toxic wastes. Surely there must be other alternatives for these spoils such as transport to an already existing toxic waste storage facility.

The Planning Board believes that there is tremendous potential for serious and long-lasting environmental and economic damage to the Town of Great Barrington if this project is forced on the Town. We see no benefit to be gained for the Town by allowing the use of residential land for the long-term or short-term storage of hazardous materials. We believe that we have the right to expect guarantees from the Environmental Protection Agency that the Housatonic River will be cleared of hazardous waste with no harmful effects or detriment to land or people living in our Town.

For the Great Barrington Planning Board,

Donald O. Goranson

Donald O. Goranson
Jonathan Hankin
Suzanne Fowle Schroeder
Richard Dohoney
Jack Musgrove
Ethan Culleton

Town of Sheffield

Board of Selectmen
21 Depot Square, P.O. Box 325
Sheffield, Massachusetts 01257

Telephone (413) 229-2335
Fax (413) 229-7010

December 9, 2010

Ms. Susan Svirsky, EPA Rest of River Project Manager
C/O Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

RE: GE's Revised Correctives Measures Study Report for the Housatonic River Site, Rest of River

Dear Ms. Svirsky:

We are deeply concerned that actions taken under the proposed Revised Corrective Measures Study (CMS) will impact our Town, economy and way of life. We respectfully request that additional public education be provided, as well as an analysis of the economic and public health impacts of the major options, prior to EPA approval of any corrective measure.

The Town of Sheffield, Berkshire County, is located in the southwestern corner of Massachusetts, just south of Great Barrington. The Housatonic River runs through our Town and continues to shape our economy, particularly our agricultural and ecotourism sectors. Proposed corrective actions taken up river will impact the Town of Sheffield. We respectfully request immediate inclusion in this important conversation, beginning with being added to the list of communities interviewed by Certus Strategies on behalf of the EPA.

While we recognize the need to move toward resolution on the Housatonic River Site, Rest of River matter, there appears to be neither a general understanding of the proposed options nor general consensus on a single corrective measure, as was illustrated at EOEEA's recent forum in Lenox. Taking the time to educate the public and facilitating reasoned discussion on options that will impact many Southern Berkshire County communities, including our Town, for decades are prudent courses of action and will serve all interested parties.

Thank you for considering our comments and we look forward to working with you and your staff on this matter.

Sincerely,

Julie M. Hannum

Julie M. Hannum, Chairman

cc: Mr. Benjamin B. Downing, State Senator
Mr. William "Smitty" Pignatelli, State Representative, 4th Berkshire District

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Town of Tyringham

Selectmen's Office • 116 Main Road • P.O.Box 442
Tyringham, MA 01264 Ph.(413)243-1749 Fax.(413) 243-4942

December 15, 2010

Susan Svirsky, EPA Rest of River Project Manager
C/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

RE: General Electric Revised Corrective Measures Study Report for the Housatonic River Site, Rest of River

Dear Ms. Svirsky,

The Selectmen from the Town of Tyringham are writing to express our concerns and requests for the corrective measures that The EPA may soon be approving for the cleanup of PCBs in the "rest of river" stretch of the Housatonic River. We would like to convey seven key points:

1) **Third Party Public Education/Outreach:** To begin, we want to express our strong concurrence with the request the Berkshire Regional Planning Commission put forth in their November 26, 2010 letter to you that non-advocacy, non-regulatory parties be empowered and provided resources to conduct a major public education and outreach effort about the options for PCB clean-up and potential impacts of the various options. We want to emphasize the need for including economic impacts. We believe that this effort is essential to the success of any cleanup action plan.
2) **Target "hotspots" for immediate cleanup:** There are high concentrations of PCBs in numerous areas. To be included are the dam impoundments in South County. These areas of concentrated PCBs should be removed as soon as possible.
3) **Reserve option for new techniques:** Ideally, we prefer a cleanup effort that achieves decontamination without major disturbance to the existing ecology of the river, the riverbanks and the floodplains. If such techniques are not available today we should keep the option of utilizing such techniques if and when they become available in the future. While dredging/soil removal may be necessary for removing "hotspots" we are anxious to use less disruptive techniques for the majority of the river.
4) **No new PCB waste dump:** We are adamantly opposed to creating any new permanent solid waste storage facility for PCBs in Berkshire County.
5) **Maximize the use of railroad cars:** We urge that truck traffic be kept as low as possible by utilizing rail transport. We request that road damage by any truck traffic be carefully monitored and any required repairs be made part of

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Town of Tyringham

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6) **Create recreation/bike paths:** As part of the restoration efforts new recreation paths should be created along the river. It should be relatively easy to create the paths given the creation of new access points the cleanup effort will necessitate.
7) **Endow an economic revitalization fund:** GE should be required to make a substantial contribution to a new economic revitalization fund that will be used by South County communities heavily impacted by the presence of PCBs and the cleanup efforts. Make no mistake – the contamination of the river continues to cause economic hardships in South County and the cleanup efforts will exacerbate this negative impact. Funds are needed to implement economic revitalization plans as we seek to re-build our damaged economies.

As anxious as everyone is to decide on the steps to be taken to clean up the "rest of river" we urge that we take the time to get it right. This means taking the time to have a comprehensive education and outreach effort, that we remain flexible to take advantage of new techniques that become available and that we pay attention to the economic impacts of what

Sincerely,

The Board of Selectmen

Alan B. Wilcox

Alan B. Wilcox, Chair

Peter L. Curtin

Peter L. Curtin

Christopher Johnson

Christopher Johnson

From:	Jim Huebner
To:	svirsky.susan@epa.gov
Cc:	Palmieri, Linda
Subject:	Housatonic Options
Date:	Friday, November 19, 2010 4:00:20 PM

Thank you for sending the video. I vote for Monitored Natural Recovery.

Jim Huebner,
Chair, Washington MA Select Board

NON-GOVERNMENT ORGANIZATIONS

barringtonstagecompany
AWARD-WINNING THEATRE IN DOWNTOWN PITTSFIELD
Julianne Boyd, Artistic Director

January 27, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

I am writing to provide comment on General Electric's Revised Corrective Measures Study (CMS) as you consider remediation plans for the "Rest of the Housatonic River."

The Housatonic River has been a vital part of our communities for hundreds of years. This portion of the river is very unique and largely rests in a natural untouched forested and wetlands area, abounding with wildlife and recreational activities. This portion of the river flows through nature preserves and important cultural resources that are critical components of the Berkshire economy.

It is the opinion of Barrington Stage Company that using a targeted low impact approach to remove PCBs will protect our community members' health, make the river safer for recreation, and preserve the natural habitat of the many creatures that call the river home.

Our area's natural beauty is partly why so many visitors decide to visit the Berkshires and Barrington Stage. Radical widespread dredging would destroy this natural environment; add access roads, staging areas, and permanent dump sites that would further destroy an otherwise untouched watershed. During the process thousands of trucks and construction equipment vehicles would travel through Berkshire communities that rely on tourism for economic survival.

As an active member of our cultural community, I ask that the EPA approve a low-impact solution, which would have the least impact on the economic and environmental needs of the Berkshires, while protecting the natural beauty and ecology of the Housatonic River in both the near and long terms.

Sincerely,

Julianne Boyd

Julianne Boyd

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JAN 31 2011
By

30 Union Street · Pittsfield, MA 01201 · 413-499-5446 Admin · 413-499-5447 Fax · **barringtonstageco.org**

BERKSHIRE BANK™

Michael P. Daly
President & Chief Executive Officer

January 26, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

As President and Chief Executive Officer of Berkshire Bank, I am writing to provide comment on General Electric's Revised Corrective Measures Study (CMS) as you consider remediation plans for the "Rest of the Housatonic River".

The decision as to what to do with the "rest of river" is certainly a complicated and difficult matter; one that is best resolved with a commonsense solution that carefully considers the needs of the communities affected and the resulting health and well-being of all that flourish from this important natural resource.

Of the numerous solutions proposed by GE, it is my opinion that two of these balance the economic needs of our residents and the environmental needs of the wildlife while meeting the EPA's human health criteria. Those options are the Monitored Natural Recovery (MNR) and the Ecologically Sensitive Approach (ESA) with the ESA appearing to be the middle ground approach. It's interesting to note that regardless of the alternative adopted, the Rest of River will remain a catch and release fishery for the foreseeable future in the EPA's assumptions.

For hundreds of years the Housatonic River has been a vital part of Berkshire County's natural beauty and economic legacy. It provides an idyllic recreation area for residents, sportsmen and tourists alike. The River's watershed is critical to biological conservation in Massachusetts, providing a habitat to over 100 plant species and over 50 animal species protected by the Massachusetts Endangered Species Act. This would all be indefinably altered, and quite possibly destroyed, by an aggressive plan to dredge the river, its banks and neighboring wetlands.

Berkshire Bank has been an active member of this community for over 100 years. We have established ourselves as a growing regional bank with a sizeable presence in New England and New York. Our ability to grow hinges greatly on our ability to recruit experienced talent from

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outside our market. These people are attracted to the Berkshires because of the quality of life afforded them in our quaint New England setting. Dredging of the river and turning the beauty of our surroundings into anything less would severely impact the Bank's ability to grow and, in turn, maintain our employment base and headquarters in Berkshire County.

It is my recommendation and hope that the EPA will take a measured, rational approach to the very sensitive and important matter of PCB removal. The ESA would appear to be the approach having the least impact on the economic and environmental needs of the Berkshires, protecting the natural beauty and ecology of the Housatonic River in both the near and long terms.

Thank you for the opportunity to comment on such an impactful decision.

Sincerely,

Michael P. Daly

From: "Pedrotti, Mark" <MPedrotti@berkshirebank.com>
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Monday, January 31, 2011 02:13PM
Subject: Smart River Cleanup

Dear Ms. Svirsky:

I am writing to provide representative comment on General Electric's Revised Corrective Measures Study (CMS) as you consider remediation plans for the "Rest of the Housatonic River."

The decision as to what to do with the *Rest of the River* is certainly a complicated and difficult matter; one that is best resolved with a commonsense solution that carefully considers the needs of the communities affected and the resulting health and well-being of all that flourish from this important natural resource.

It is my organization's opinion that a low-impact solution will balance the economic needs of our residents and the environmental needs of the wildlife, while meeting the EPAs human health criteria.

An aggressive plan to dredge the river, its banks and neighboring wetlands, as was completed by GE during Phase I of the cleanup, would indefinably alter, and quite possibly destroy, the Housatonic River, which has for hundreds of years served as a vital part of Berkshire County's natural beauty and economic legacy.

We know that even the highest historic levels of PCB contamination have not destroyed or degraded the ecology of the *Rest of the River*. PCBs have been present for more than 70 years and yet wildlife continues to thrive without remediation. No matter the extent of remediation undertaken, fish consumption advisories would remain in place indefinitely.

As an active member of our business community, I ask that the EPA take a measured, commonsense approach to the very sensitive and important matter of PCB removal. I strongly urge you to approve a low-impact solution, which would have the least impact on the economic and environmental needs of the Berkshires, while protecting the natural beauty and ecology of the Housatonic River in both the near and long terms.

Thank you for the opportunity to comment on such an important decision. I make myself available to work with the EPA to assist in your efforts to balance our community's needs with an environmentally and economically sensitive solution to clean up the *Rest of the River*.

Sincerely,

Mark Pedrotti
E-Marketing and Website Administrator
Berkshire Bank
43 East Street
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BERKSHIRE BANK FOUNDATION™

January 24, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

I am writing today to go on record opposing extensive dredging to clean up the PCBs in the rest of the Housatonic River from Pittsfield to Woods Pond in Lenoxdale. This section of the river is primarily a wildlife preserve and includes the Canoe Meadows Wildlife Sanctuary used by thousands every year for recreational and educational purposes. This section is also used by many for canoeing, kayaking, hiking and fishing. It is truly the heart of the Berkshires used by residents and visitors alike.

Wide-scale dredging, like in Phase 1 of the cleanup, would likely last 10 to 20 years and would brand the Berkshires as an environmentally problem area. Digging up large sections of the river, riverbanks and wetland areas would totally change the appearance and usability of the river, would produce dumpsites of contaminated soils in communities that don't want them and would produce thousands of trucks passing through small towns carry the contaminated soil out and new soil in. All this would negate all the good things Berkshire organizations and businesses have been promoting and could have devastating impacts on our tourism industry that supports all our cultural attractions, restaurants and other businesses.

As head of a large foundation that provides financial support to many of our cultural and human service non-profit agencies, I know how financially fragile many of them are in these tough economic times. I also know that if the Berkshires become known more for its PCBs and damaging cleanup operations that go on for years that most of them will experience fewer visitors and suffer financially.

We all want the river to be cleaned up. We are just asking the EPA to explore all possible remediation remedies and select a low impact one that preserves the integrity and beauty of the river for us and future generations. Thank you.

Sincerely,

Peter J. Lafayette
Executive Director

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JAN 27 2011
By

Berkshire Bank Foundation + P.O. Box 1308 + Pittsfield, MA 01202 +413-447-1724

BERKSHIRE BANK™

Michael P. Daly
President & Chief Executive Officer

January 26, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

As Chairman of both the Berkshire Business Roundtable and the 1Berkshire Strategic Initiative, I am writing to provide representative comment on General Electric's Revised Corrective Measures Study (CMS) as you consider remediation plans for the "Rest of the Housatonic River".

The decision as to what to do with the "rest of river" is certainly a complicated and difficult matter; one that is best resolved with a commonsense solution that carefully considers the needs of the communities affected and the resulting health and well-being of all that flourish from this important natural resource.

Of the numerous solutions proposed by GE, it is our opinion that two of these balance the economic needs of our residents and the environmental needs of the wildlife while meeting the EPA's human health criteria. Those options are the Monitored Natural Recovery (MNR) and the Ecologically Sensitive Approach (ESA) with the ESA appearing to be the middle ground approach.

We know that even the highest historic levels of PCB contamination have not destroyed or degraded the ecology of the Rest of River. PCBs have been present for more than 70 years and yet wildlife continues to thrive without remediation. No matter the extent of remediation undertaken, fish consumption advisories would remain in place indefinitely.

For hundreds of years the Housatonic River has been a vital part of Berkshire County's natural beauty and economic legacy. It provides an idyllic recreation area for residents, sportsmen and tourists alike. The River's watershed is critical to biological conservation in Massachusetts, providing a habitat to over 100 plant species and over 50 animal species protected by the Massachusetts Endangered Species Act. This would all be indefinably altered, and quite

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possibly destroyed, by an aggressive plan to dredge the river, its banks and neighboring wetlands.

It is the recommendation of the members of the organizations, which I represent, that the EPA take a measured, commonsense approach to the very sensitive and important matter of PCB removal. The ESA would appear to be the approach having the least impact on the economic and environmental needs of the Berkshire's, protecting the natural beauty and ecology of the Housatonic River in both the near and long terms.

Thank you for the opportunity to comment on such an impactful decision. I make myself available to work with the EPA to assist in your efforts to balance our community's needs with an environmentally and economically sensitive solution to the clean-up of the "rest of river".

Sincerely,

Michael P. Daly
Chair, Berkshire Business Roundtable
Chair, 1Berkshire Strategic Initiative

Berkshire Chamber of Commerce

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Ms. Susan Svirsky
EPA Rest of River Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

January 27, 2011

Dear Ms. Svirsky,

The Berkshire Chamber of Commerce, henceforth referred to as the Chamber, is a 501(c) (6) organization devoted to the improvement of business conditions for its membership, consisting of approximately 1,100 business and organizations employing more than 32,000 people in Berkshire County. The primary mission of the Chamber is to advance economic development and support the civic and social welfare of Berkshire County through advocacy and support of its members.

As a connector and community collaborator, the Chamber works with regional employers, educators, cultural and hospitality communities, nonprofit-service-providing communities and our elected officials to help improve the prosperity of our County. While the Berkshires and its thirty-two cities and towns have faced many unique challenges, we must also remind ourselves of the multitude of successes and advancements that we have worked to bring to fruition. Over the past few years, we have begun to see the positive results our work has produced, most recently illustrated by the groundbreaking of the Pittsfield Municipal Airport Safety Project, which will provide 264 jobs per year, over $11 million in labor income per year, and almost $35 million in economic impact per year. In three years, the impact of this project will result in more than $100 million in economic activity for Berkshire County.

A "Buy in the Berkshires" program, launched by the Chamber in 2008, continues to gain momentum and has proven to be a very strong influence, as Pittsfield showed an increase of $26 million in retail sales last year, one of only three communities in the Commonwealth to show improvement. We must continue this momentum, and we will do so by creating an inviting community, a community that people want to migrate to, be it the visitors that love to frequent the region, the second home-owners that look to the region as a safe haven from the hustle and bustle of big city life, or the natives that believe so strongly in the Berkshire County quality of life.

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U.S. CHAMBER OF COMMERCE

As we turn to the river, The *Smart Cleanup Coalition* is keeping this top of mind and advocating for a middle-of-the road, low-impact approach that will meet EPA human health standards while protecting the existing ecological and recreational resources of the river. Such a plan will focus on removing only the largest concentrations of PCB's and leaving the remaining portion of the river undisturbed. This plan will protect the integrity of the river and limit the impact on business and tourism during the clean-up process. While the specifics of a low-impact approach have not been decided on, the Coalition is asking the public to encourage the EPA to adopt this low-impact approach to avoid extensive dredging that would have a devastating impact on the river, businesses, residents and visitors for generations to come. This next portion of the River is very different from Phase I in Pittsfield and, as such, requires a different cleanup approach.

The Berkshire Chamber of Commerce Board of Directors supports this approach, and recently voted to join this advocacy effort to persuade EPA to not recommend a Housatonic River PCB cleanup requiring the full dredging methodology in the manner employed in the Phase I area of Pittsfield, provided the same meets the EPA human health standards.

We respectively request your assistance in helping to create a plan that does not include a full dredge similar to that of Phase 1.

Respectfully,

Michael Supranowicz
President & CEO
Berkshire Chamber of Commerce

cc: Governor Deval Patrick, Mayor James Ruberto, Senator John Kerry, Senator Scott Brown, Senator Ben Downing, Representative Chris Speranzo, Representative William "Smitty" Pignatelli

From: Susan Svirsky/R1/USEPA/US
To: svirsky.susan@epa.gov

Date: Tuesday, January 11, 2011 01:58PM
Subject: Fw: Comments on Rest of River Clean Up for Housatonic

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From: Mark Jester
To: Jim Murphy/R1/USEPA/US@EPA
Date: 10/26/2010 12:00 PM
Subject: Comments on Rest of River Clean Up for Housatonic

Dear Mr. Murphy

On Tuesday afternoon (10/19/10) I attended the Public Listening Session hosted by the Commonwealth regarding G.E.'s proposal for the cleanup for the "Rest of River". It was held at the town hall in Lenox, and like many others there, I spoke on behalf of the group I represent. Our organization's membership topples just over 3,000 organized sportsmen and sportswomen living and working in Berkshire County.

We have some real questions, concerns and dilemmas, surrounding the cleanup of the rest of river. When the EPA decides which plan they want GE to use in the cleanup, who is really being served by the process? A mantra that is being used by some is "We want a fishable, swimmable river, remove all of the PCB's." Some want full blown dredging, others want to let the river heal itself. Well, many of us want something in-between. When we finally get to the end, who is best served by the cleanup? If the EPA says dredge it, what happens to the wildlife on and in the river? What about the wildlife in the river's backwaters and abutting wetlands? What about the wildlife downstream from Woods Pond? Look what happened over in NY on the Hudson with the dredging. PCBs re-suspended in the water and are now traveling downstream. I'm sure our friends in CT won't be too happy with that. So, what happens? Where do the wood ducks go when the flooded timber they use for breeding and nesting in some of the oxbows and flooded wetlands are removed? Where do the mink, otter and beaver go in the area? What happens to the coldwater streams that feed the river? What about the various species of fish that are in this area of the river that are now protected by a large tree top canopy? These mature wooded areas will all be replaced with saplings, resulting in raised water temperature killing off and possibly removing these fish from the river for decades. What about the majestic bald eagles that are now using this area as a breeding and hunting ground? Where do the hundreds of species of song birds, non-game animals and invertebrates go? What happens to their habitat? Let's not destroy the river to fix the river.

As I said in the beginning of this letter, some sportsmen do not want anything done to the river, but as for the organized sportsmen here in the Berkshires, we realize that there needs

to be some remediation done by GE and/or EPA, but not at the sole expense for us being able to fish and swim in it.

Sportsmen would like to see a more environmentally sensitive approach to the restoration of this diversified river habitat. One that is acceptable to both the river users and inhabitants.

The late statesman of Berkshire County, Silvio O. Conte, a resident of the Lakewood neighborhood in Pittsfield, said at the first Berkshire County League of Sportsmen's awards dinner, now in his name; "What the problem of preservation boils down to is this --- ducks can't vote, tree's can't vote, neither can salmon, flowers, mountains or rivers. It's incumbent upon us as sportsmen to take on the weighty responsibility to serve this as our greatest constituency" That's our mantra.

Mark P. Jester, President
Berkshire County League of Sportsmen
Pittsfield, MA 01201

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January 31, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms.Svirsky:
I am writing to offer formal comment on General Electric's Revised Corrective Measures Study (CMS) recently submitted for Phase II of the Housatonic River Clean Up. In so doing and on behalf of Berkshire Creative Economy Council (Berkshire Creative) an organization that supports the creative business and organizations of Berkshire County, I strongly urge you to consider a low-impact clean up solution, which does not include extensive dredging, but does address the goal of meeting human health standards.

A radical dredging effort, similar to that undertaken by GE previously, would last 10-20 years during which time thousands of trucks and construction equipment vehicles would travel through areas in southern Berkshire communities. This area of the county is rich with creative assets, some of which rely on tourism for economic survival and others who choose to run their businesses out of Berkshire County because of the lifestyle benefits. This major undertaking would impact those businesses and organizations dramatically, not to mention the effects of the natural beauty of the environment.

We at Berkshire Creative believe that a low-impact solution will balance the economic needs of our residents and the environmental needs of the wildlife, while meeting the EPAs human health criteria. Anything more would cause widespread long-term and in some cases permanent damage. As a community leader, I ask that the EPA take a cautious approach to this very important matter of PCB removal. I strongly urge you to approve a method, which would have the least negative impact on the Berkshire County economy and environment.

Thank you for the opportunity to comment on such an important decision. I look forward to finding a solution to clean up the *Rest of the River* that balances the needs of our community with that of meeting human health standards as determined by the EPA.

Sincerely,

Helena Fruscio, Director

From: Kristen Laney
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: Linda.Palmieri@WestonSolutions.com

Date: Wednesday, December 15, 2010 10:06AM
Subject: Comment on 2010 Corrective Measures Study

History: This message has been forwarded.

To Susan Svirsky, Environmental Protection Agency Rest of River Project Manager:

I am writing to you in regards to General Electric's 2010 Corrective Measures Study. I believe it is inadequate in several important ways. It is important that GE take full responsibility for all its PCB-contamination of the Housatonic River and that it undertake an ecologically-responsible cleanup to remove as much of the contamination as is possible. It is not acceptable to claim that the river is a healthy ecosystem. The fish and wildlife of the River have been poisoned, and people living around the river are exposed to serious health risks.

I urge you to reject GE's claim that to clean the River of PCBs will destroy the Housatonic. Rivers are being effectively cleaned throughout the country.
I also urge you to reject any GE plan to create PCB dumps in or alongside the Rest of the River. GE has already created two large-scale dumps in Pittsfield. There are existing PCB dumps in the nation.

But most importantly I urge the EPA to actively pursue a range of alternative remedial technologies – technologies that may effectively destroy PCBs. We deserve to have a series of pilot projects to see whether any of these new technologies are appropriate to the Rest of River cleanup.

And if the EPA chooses a cleanup program that involves dredging, we urge you to employ the latest and least intrusive forms of dredging in order to minimize potential dangers arising from such an operation.

Finally, only a comprehensive cleanup will restore the Housatonic River and provide not only the people but the wildlife of Berkshire County the River they deserve.

Sincerely,

Kristen Laney
BEAT Executive Assistant

Berkshire Environmental Action Team
27 Highland Avenue
Pittsfield, MA 01201
www.thebeatnews.org

Berkshire Environmental Action Team

Working with you to protect the environment in the Berkshires and beyond

January 21, 2011
Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

Berkshire Environmental Action Team appreciates the opportunity EPA has provided for public input and is submitting the following comments on the General Electric Company's Revised Corrective Measures Study (CMS) Report for the Housatonic River Site, Rest of River. In addition to commenting on the full Revised CMS, BEAT is commenting on the summary of the revised CMS prepared by GE for the public. This summary takes the form of a video presentation entitled "The Housatonic: The Fate Of The River." Our response to this public summary of the revised CMS is attached.

Our comments to the revised CMS are intended to make and support four main points.

1. The revised CMS is flawed. It does not adequately address the inadequacies enumerated by EPA in response to the original CMS, and it contains errors and misrepresentations.
2. BEAT feels that GE is not making a good-faith effort to resolve the problems related to remediating the river and should be removed from the process.
3. Considering the primary study area as seven reaches does not provide adequate resolution in determining remediation approaches for different habitats. BEAT believes that microhabitats should be considered in choosing appropriate approaches.
4. Principles of adaptive management should be applied in remediating the river and floodplain, and we should keep our options open so that emerging alternative technologies can be explored and possibly implemented.

Revised Corrective Measures Study (CMS)

After reviewing the original CMS prepared by GE, EPA required GE to " address over 150 inadequacies or other comments." In September of 2008 in "Housatonic River 'Rest of River' EPA Requires GE to Revise Its Corrective Measures Study" EPA summarized these points and singled

out 18 in EPA's document "Housatonic River 'Rest of River' EPA Requires GE to Revise Its Corrective Measures Study" (September 2008). Among the 18 was the inordinate attention GE paid to describing the problems and dangers posed by a cleanup. BEAT agrees with EPA on this point. The vast majority of the revised CMS is devoted to describing the environmental harm GE imagines would result from a proper and efficient cleanup. The tone is that of an appeal to the public rather than a report to a regulatory agency. To support their positions, GE points to the extent to which vegetation would be removed from the riverbank and from the floodplain, and the length of time required to recover from such an environmental shock. They further contend that the habitats that would evolve after remediation would be very different in function.

BEAT would like to point out that in the case of the riverbank and in the case of vernal pools, we do not have to speculate. Despite GE's reluctance to participate in an enthusiastic manner, the cleanup along the riverbank in Pittsfield near Dorothy Amos Park, and the cleanup of vernal pool 8-vp-1 near the Confluence were successful. In both cases, the habitats have been protected and the vegetation has been restored. In the case of the vernal pool, wood frogs, fairy shrimp, and spotted salamanders returned the very first spring after remediation to a pool from which PCBs had been removed.

Another point EPA called special attention to in its comments on the original CMS was the fact that GE needed to "Submit a detailed description of the habitat restoration requirements, process, and methods for restoration of habitats affected by construction activities, including steps to avoid or minimize impacts (including impacts to threatened and endangered species and species of special concern) and to control invasive species." BEAT agrees with EPA that this was a deficiency in the original CMS and is still a deficiency in the revised CMS. A case in point is GE's calling of attention to the green frogs in vernal pool 8-vp-1 after remediation. EPA has pointed out in a study summarized on its website that EPA studied 45 vernal pools along the Housatonic River between 1995 and 2000 and of those 45 vernal pools, 26 of them (including pool 8-vp-1) had green frogs prior to remediation. It is interesting to note that GE even provides a reason why it believes green frogs would invade post-remediation vernal pools. They point to the loss of cover that would result from the removal of trees from around the pools. This point was also made in GE's video which included a photoshopped image of a vernal pool with all of its trees removed. GE presented this scenario in both the video and in the revised CMS (page 72) despite the fact that at pool 8-vp-1 only one (1) tree greater than 6" dbh was removed at the site and 30 were planted, and despite the fact that green frogs were present both before and after remediation.

We believe that remediation of the vernal pool would have been even less disruptive to the vernal pool habitat if GE had used equipment of appropriate scale. A small excavator such as a Bobcat© or even workers with shovels would often be much more appropriate than the larger equipment typically used by GE for remediation in wooded or brushy areas. The cost to GE would be greater due to an increase in the amount of worker hours needed to complete the project, but GE could perhaps console itself by remembering that they saved a great deal of money by not disposing of the PCBs properly in the first place. We believe that GE is either incapable of or unwilling to properly assess habitats in and along the river and either incapable of or unwilling to provide adequate safeguards for wildlife.

EPA also stated that in the CMS, "Insufficient consideration has been given to measures that might be taken to minimize the impact of roads and staging areas on the floodplain." BEAT agrees

with EPA on this point. Rather than resolve this problem or attempt to minimize the adverse impact of construction during any remediation project, GE has chosen to use this as an opportunity to point out the dangers of any remediation effort. Again this is in keeping with the general tone of the document as an appeal to be released from their obligation to remediate the river. BEAT believes that the large number of staging areas in GE's plans are intended to cut construction costs and to frighten the public with visions of turning the entire river into a devastating construction site. No matter what path is chosen, some remediation will be necessary. GE should take seriously their responsibility to design future projects in and around the river in a manner that protects habitat and wildlife, rather than in a manner that minimizes construction costs or that is designed to scare the public.

EPA also asked GE to "Provide additional justification for the use of thin-layer capping and monitored natural recovery (MNR) in the locations selected for these techniques in Reaches 5 through 8 for each of the alternatives. EPA has notified GE that EPA does not consider thin-layer capping to be a permanent means of isolating contaminants (but is a form of MNR)." BEAT agrees with EPA on this point, but apparently GE has still not heard this message. According to GE's data, the sedimentation rate in the river above Woods Pond ranges from 0.05 to 0.6 inches per year. Even in Woods Pond itself the sedimentation rate is only 0.1 to 1.0 inches per year. Monitored Natural Recovery can not possibly bury PCBs if the simple everyday occurrence of a muskrat rubbing along the bottom can undue many year's worth of sedimentation. Adding a thin cap just transfers this task of sediment disruption to organisms that burrow in the PCB-laden sediment (e.g., crayfish, worms). There is much stronger evidence in the literature for the carcinogenic nature of PCBs than there is for the effectiveness of "Monitored Natural Recovery."

BEAT questions the portrayal of the riverbottom as a quiet habitat that is slowly being covered with sediment. The following is from a GE report entitled "SUPPLEMENTAL PHASE II/ RCRA FACILITY INVESTIGATION REPORT FOR HOUSATONIC RIVER AND SILVER LAKE VOLUME I OF II." (1996)

"As part of the transport investigation, three sediment traps were placed in Woods Pond on October 28, 1994 at locations shown on Figure 3-33. An attempt was made to sample these traps on August 9, 1995. The first trap, located in the southeastern portion of the pond, was not present at the location where it had been placed, and it could not be located. Therefore, samples could not be recovered. The second trap, located in the northern portion of the pond, within the channelized section, was found displaced from its original position and thus compromised."

Whether the movement of the traps was due to an animal or due to underwater currents during or as a result of a storm, this incident indicates that we can expect to see cap-disrupting forces on the bottom of Woods Pond. BEAT would also like to point out that whatever caused the movement of the traps would also cause resuspension and disruption of sediments.

A cap would also change the nature of the riverbed's natural substrate. BEAT believes that PCBs should be removed, not covered over. Covering PCBs is not a long-term solution.

The continued release of PCBs from former GE properties, Unkamet Brook, and Silver Lake is unacceptable. This continued release places a lower limit on the possible future health of the river and wildlife.

The level of PCBs in the Housatonic River and the Housatonic River floodplain in Connecticut should be addressed. Although PCB levels in Connecticut are lower than in the PSA, this is much too low a standard to be setting.

For these reasons and many more, BEAT believes that GE in its revised CMS has failed to address the task assigned to it, and has failed to address EPA's objections to the original CMS. We believe that EPA should therefore reject the revised CMS for the same reasons the agency rejected the original CMS.

General Electric

Whether GE is unable or unwilling to remediate the river effectively is irrelevant. The fact of the matter is that as long as GE is a major player in the remediation effort, the river will never be remediated as well as it could be. GE is a corporation - one of the largest in the world - and bound by various regulations to protect its bottom line - not the environment.

In 1998, The Berkshire Eagle ran a story entitled "Pollution's Paper Trail: GE's trove of records eluded regulators." It begins,

> *"GE has recently released to state and federal environmental agencies tens of thousands of pages of records about PCB disposal practices – including historic records of disposal sites that throughout the 1980s GE's top local environmental officials asserted did not exist. In 1984, the Environmental Protection Agency decided not to place GE's transformer plant and a long stretch of the Housatonic River in the fledgling Superfund program based primarily on the misperception that the chemical contamination from GE's 60-year transformer operation was for the most part confined to the 250-acre East Street plant and the river."*

One year later, the Commonwealth of Massachusetts filed a complaint against GE in court. It reads in part,

> *"Specifically, the Commonwealth alleges a failure to notify the Massachusetts Department of Environmental Protection ("DEP") of a release of hazardous material to the environment, and the making of inaccurate, incomplete, misleading and untimely submittals to DEP with respect to such release."*

To expect GE to play by the rules is unreasonable given past behavior. GE still clings to the incredible belief that PCBs pose no risk to human health or to the health of wildlife species. No amount of oversight will be sufficient to ensure that GE makes well intentioned efforts at remediation. It is simply not in their best financial interest to do so. Much of the CMS seems to be intended to position GE favorably for a future legal challenge to EPA's authority. It is a waste of EPA's talents and energy to babysit a corporation that is unwilling to perform the task that society has asked them to perform in the aftermath of the environmental tragedy they have created.

BEAT believes the cleanup of the Housatonic River would be much more effective if all the voices at the table were working to solve the problem. There are a lot of very creative people in our community. This is our community and our river. BEAT believes this problem would best be solved with input from the public, regulators, and scientists. We've let the polluter run the show for long enough. GE clearly can't lead. It's time for them to get out of the way and let the rest of us get some work done.

Microhabitats vs Reaches

BEAT would like to encourage EPA to look at the riverbank and the floodplain in terms of its microhabitats. Some microhabitats would be quite intolerant of aggressive remediation. Others would be more resilient. Also some microhabitats have higher concentrations of PCBs than others. Assessing the balance between benefit of PCB reduction and resiliency of habitat should be done with a focus that is brought down to as fine a scale as possible.

Adaptive Management and Emerging Technologies

As remediation of the river proceeds, there will be much we can learn. It might be beneficial to remediate small sections of the river and then analyze the result to see what we can learn before proceeding to the next small section. To the extent possible, we should allow for flexibility in approach as we proceed with the cleanup. There are always new technologies emerging. GE does not consider in its study the possibility of treating PCBs in place. They have not considered using precision hydraulic dredging instead of outdated clam-shell grabbers and shovels.

BEAT is concerned that in coming to a decision as to how cleanup should proceed, EPA will lock cleanup procedures in and prevent adaptation in response to lessons learned and to emerging technologies. We should ensure that we have provided for a mechanism whereby we can change approaches based on new research, new technologies, and lessons learned for the cleanup.

Other Thoughts

In making decisions about what vegetation should be removed in preparation for cleanup, consideration should be given to which plants are native and which are introduced. If vegetation is disturbed by a project, replacements should be native riparian plants. Lawns and non-native vegetation should not be introduced and established.

Remediation efforts should favor programs that restore the ability for natural processes to function, including easements purchased that allow flooding and stream meandering, and programs that remove old bank stabilization structures. If bank stabilization is deemed necessary, it should be confined to the shortest possible length of stream and should use techniques that fit the stream type and have the least impact.

During remediation efforts, a process should be implemented by which equipment is washed or otherwise decontaminated before entering the work area. This would minimize the likelihood that invasive plants and animals would be introduced into the river or floodplain.

BEAT believes that EPA's analysis should be science-based rather than based on the short-term outlook premised on faulty information that has been prevalent in the local discussion.

Again, BEAT thanks you for this opportunity to provide input into this process.

Respectfully,

Bruce Winn, President
Berkshire Environmental Action Team

A Response To GE's Video: “The Housatonic: The Fate Of The River”

Recently, we at Berkshire Environmental Action Team (BEAT) have found ourselves responding to the same question many times. Which of the PCB cleanup solutions for the Housatonic River does BEAT support? The sudden increase in concern has been generated by the distribution by GE of a 25-minute video that presents GE’s view on the subject. The video has been shown on television and is now being mailed to residents of Berkshire County. We welcome this increased concern and interest, especially if people look farther than the video for answers to a very important question. Let me give you my take on the GE video.

First a little context. Over the past few years, GE was forced by EPA and the courts to remove some of its PCBs from two miles of the Housatonic River in Pittsfield. Now the EPA is deciding how best to approach the cleanup of the rest of the river. The cost to GE, which could be substantial, will depend on decisions made by EPA and the courts. GE’s video is part of a well financed and choreographed appeal to public opinion in the hope that we, the public, will put pressure on EPA to require as little as possible from GE.

The first three minutes of the video are devoted to painting a picture of the river as a wild and scenic waterway that should be cherished and protected from change. It begins with sweet sounds of music playing as the waters rush by. A soothing and nurturing female voice begins the narrative as an autumn leaf floats slowly down the river. There is little in the way of details or specifics. Those will come later. This is clearly a stage-setting introduction. It is meant to define the task at hand, and to introduce GE as the caring and nurturing party in the debate.

OK. Let’s stop right there. BEAT doesn’t have money to pay people to play violins or to hire voice talent, but we do have a nine-year history of working to protect the river. My first reaction to the introduction is to observe that whatever health the Housatonic River has, it has despite the abuse meted out by GE. For GE to present itself as the river’s caretaker is an insult to those organizations, BEAT included, who work day in and day out to actually protect the river.

The video begins with the following four text panels.

“*The Housatonic River has always been a defining element of the Berkshires. It has provided power for mills, scenic beauty and recreation for all and served as an important refuge for wildlife, including dozens of threatened, rare or endangered species.*

In the coming months the U.S. Environmental Protection Agency will determine the future of the Housatonic River when it decides whether to require additional construction activity in and along the river.

GE funded the production of the film you are about to see which examines three of the alternatives being considered and their consequences.

Please watch for the next 25 minutes to learn about what these alternatives would mean for the future of the Housatonic River and its wildlife, and for the residents of the Berkshires.”

Already, we have a problem. EPA is not deciding “whether to require additional construction activity”. EPA is deciding how best to proceed with the cleanup of PCBs. Also, although EPA is in the fact-gathering and discussion phase of the proceedings, GE is attempting to limit discussion to “three of the alternatives being considered and their consequences.” These are three alternatives that GE would like us to focus on. Just understand that at this point in the process we are not limited to any list of proposals or alternatives – certainly not to a list created by GE.

[opening music, birds singing, leaves floating serenely on the river]

[Female narrator]

"*For centuries it has carved its way across this floodplain. It has witnessed the arrival of the Europeans and the coming of the Industrial Revolution. For generations, the Housatonic River of New England has remained a magnet for nature lovers who come to enjoy its beautiful scenery and abundant wildlife. During the twentieth century, polychlorinated biphenyls, PCBs, were released to the river and spread into the riverbed and the surrounding area. Despite years of cleanups, some PCBs remain. The question now is what should be done about them. How we answer that question will impact generations to come."*

BEAT is glad GE has brought up the issue of history. For years, GE dumped its PCBs into the Housatonic River, home of "abundant wildlife." We're talking about a period that included the post-World War II era. During this period, the river deteriorated from the pristine waterway described in the video to a horrific running concoction of all sorts of industrial and residential waste. GE was a major contributor to this mix. Over the years, thanks to more progressive environmental regulations and efforts of individuals and organizations, the river has been cleaned of its visible pollutants and most of its invisible pollutants. PCBs remain.

Notice that GE says that "polychlorinated biphenyls, PCBs, were released to the river…" as if this were some sort of unfortunate accident. No mention of the fact that it was GE that released them into the river. They even avoid saying that PCBs were released INTO the river. They say they were released TO the river as if this dumping were some sort of offering on the part of GE. Yes, mistakes were made. Nowhere in this video will GE take responsibility for its actions, but the sweet music will continue to play.

In the past, GE has taken the position that the period between 1932 and 1977, during which they used PCBs in their electrical transformers, was a different time. People didn't know about the harm that could result from PCBs. The following historical information is taken largely from the website of the Housatonic River Initiative (HRI). Citations and further details can be found there.

In 1936, one year before GE began using PCBs, Dr. Lewis Schwartz, Senior Surgeon with the United States Public Health Service, wrote a paper in which he warned of the dangers of Pyrenol, the version of PCBs used by GE. In it Dr. Schwartz said:

"In addition to the skin lesions, symptoms of systematic poisoning have occurred among workers inhaling the fumes. Those working with the chloro diphenyls (PCBs) have complained of digestive disturbances, burning of the eyes, impotence and hematuria. The latter symptom developed among a number of men making amino diphenyl, which is used in the making of a rubber antioxidant. Causes of death from yellow atrophy of the liver have been reported among workers exposed to the fumes of the chloro naphthalenes."

Also in 1936, Dr. Schwartz cautioned in an article that "workers in chlorinated naphthalenes and di phenyls (PCBs) should be periodically examined for symptoms of systemic poisoning."

This is not some obscure reference. This is the United States Public Health Service. And in case your thinking that maybe GE was unaware of the problems associated with the chemical that they were using in massive amounts, here's a statement made in 1937 by F. R. Kaimer, Assistant Manager of a GE plant in Pennsylvania where PCBs were being used to treat wire. [NOTE: halowax is a name for PCBs used by one of its manufacturers.)

"It is only one and a half years ago that we had in the neighborhood of 50 to 60 men afflicted with various degrees of this acne about which you all know. Eight or ten of them were very severely afflicted – horrible specimens as far as their skin conditions were concerned. One man died and the diagnosis may have attributed his death to exposure to halowax vapors but we are not sure of that …

we had 50 other men in very bad condition as far as the acne was concerned. The first reaction that several of our executives had was to throw it out – get it out of our plant. They didn't want anything like that for treating wire. But that was easily said but not so easily done. We might just as well have thrown our business to the four winds and said, 'We'll close up,' because there was no substitute and there is none today in spite of all the efforts we have made through our own research laboratories to find one."

Keep in mind that I am pointing this out because the first three minutes of the GE video is aimed at portraying GE as the steward of the river. You may object and say that 1937 is early in the story. Surely they changed their ways as the picture became more clear. In 1990, filmmaker Mickey Friedman interviewed retired GE workers for his documentary entitled "Good Things To Life." Among those interviewed were retired GE workers Ed Bates and Charles Fessenden. They worked with PCBs at GE in the 1940s through the 1970s when it was phased out. Around the age of 40 or 50, Ed and Charlie started noticing that they were going to a lot of wakes and funerals for friends. They were concerned. They read in the paper that there was a high incidence of cancer in Pittsfield. In 1979 they heard that a researcher from Harvard University was going to do an independent study of GE workers and the incidence of cancer. They contacted GE and offered to be part of the study. They were not included. They wondered what was going on. They submitted the names of fellow workers who had died and tried to get them included in the study.

Ed: "Charlie and I had submitted the names, 60 names back in 1983, and they finally gave us the list of 60 names and the causes of death in 1988, five years later, to do 60 of them, 61. Out of 61 there were 13 people they excluded from the study because they said that they couldn't find them or it was out of the time range and we agreed with that. Left 48 names on their with the causes of death. … Out of these 48 names and the 48 causes of death, every one of them was wrong. Every one. And Charlie and I knew some. They had a fellow dying in a fire – and so Charlie and I went to every town hall in Berkshire County. We got their death certificates which indicated they were wrong."

That music on the video is beginning to sound a little more Gothic to me now. The entire interview and the outcome of the study are available on HRI's website. Here's some more from Ed and Charlie.

Ed: "We used to use an average of 20,000 gallons of Pyrenol a week. And this is, if you did simple mathematics, this is 140,000 pounds of Pyrenol, of PCBs a week that we were handling. And we had a loss rate, spillage, over-filling of about 3%. So this says that every week we would lose between 4,000 and 5,000 pounds of PCBs that would go down the drain and into the river."

Now keep in mind that to dispose of some of their PCB-laden waste, GE would donate it to parks and schools. Shocking? This is the same GE that after being forced to clean its PCBs from the river in Pittsfield, decided to dump those PCBs next to an elementary school.

The narrator continues:

"*Wildlife is thriving here, even though the river and surrounding areas contain PCBs. Between the 1930s and 1970s PCBs were commonly used in electrical machinery. Equipment manufactured by GE in Pittsfield contained them as well. Over time, some of these PCBs contaminated the river and the surrounding areas.*"

Is wildlife thriving despite PCBs? This is a major point in the debate. I will leave it for now, and address it fully when GE addresses it fully, later in the video.

"Between the 1930s and 1970s PCBs were commonly used in electrical machinery." Again GE uses the passive voice. PCBs were used, not GE used PCBs. The fact that they were commonly used has no bearing on the issue at hand, unless GE is again attempting to argue that they had no knowledge of the risk PCBs posed. And in fact, GE was a major consumer of PCBs and the only source of PCBs in the

Housatonic. “Equipment manufactured by GE in Pittsfield contained them as well.” Again, this was the only source of PCBs in the Housatonic River. This sentence gives one the impression that GE is being unfairly singled out. “Over time, some of these PCBs contaminated the river and surrounding areas.” Again, no responsibility on GE’s part. I feel quite confident that a team of GE’s PR people thought carefully about every word and phrase in this video. They say PCBs contaminated the river. In fact, PCBs go where CEOs send them. GE dumped PCBs into the river, buried barrels of PCB-laden waste in landfills, allowed PCBs to drain directly into the river, and gave away PCB-laden fill as clean fill. Again, nowhere in this video does GE take any responsibility for this environmental tragedy.

The following narration completes GE’s three-minute introduction.

“*The most highly contaminated sections have been cleaned up. Ten years ago, work crews began to remove PCBs from the former GE facility in Pittsfield and from two miles of river passing through the city of Pittsfield. One hundred and ten thousand cubic yards of sediment and soil were removed. The river and its banks were dug up and lined with rock, and in some places brick. The end result was a radical reduction in the amount of PCBs in that stretch of the Housatonic. The question now is what is best for downstream sections of the river.*”

Again, most of this is best addressed when it comes up more fully in the video. But I would like to briefly address the issue of “The river banks were dug up and lined with rock, and in some places brick.” Yes, part of the river in Pittsfield was made to look ugly, although it is now recovering nicely. It’s interesting that GE supported this approach to restoring the riverbank over the objections of environmental groups, most notably HRI. Now they point to the result as a rationale for not making them clean the rest of the river. How convenient. In effect they are saying, “But look at what a terrible job we did the last time you asked us to fix it.” Also, much of this Pittsfield section had already been lined with riprap in the 1930s and 1940s by the Army Corps of Engineers. It is unlikely that this approach would be used on the rest of the river farther south.

In October of this year, GE presented to EPA a report called the Revised Corrective Measures Study Report, also called the CMS. In this report GE described its recommendations for removing PCBs from the Housatonic River downstream of the stretch in Pittsfield that has already been remediated. Remember, these are GE’s proposals. EPA doesn’t have to accept them. There are other options out there as well.

In this report, GE came up with ten approaches to remediating the sediments that make up the riverbed of the Housatonic River. They called these approaches SED 1 through SED 10. They also came up with nine approaches to cleaning PCBs from the river’s floodplain. They called these approaches FP 1 through FP 9. They call different combinations of these approaches by their combined designations. For instance, if they want to talk about an approach that uses SED 3 to clean the riverbottom and FP 4 to clean the floodplain, they call it SED 3/FP 4. This is their nomenclature, and it makes sense as a way to discuss their various proposals.

With this in mind, let’s go back to the video’s narration.

[narrator]

“*We’ll examine three approaches. Monitored Natural Recovery: PCBs are captured before they can enter the river upstream while nature buries the PCBs remaining in the river. SED 3/FP 3: Five miles of river and 44 acres of forest and wetlands will be excavated. Another 37 acres of riverbed and 60 acres of Woods Pond will be capped with clean soil. The Ecologically Sensitive Approach or ESA: A far less damaging approach that still protects human health.*”

So the first proposal GE would like us to consider they call “Monitored Natural Recovery.” Notice that this proposal doesn’t have a SED or FP designation, and there’s a good reason for this. This option

doesn’t include cleaning the riverbed or the floodplain. GE could have called it “Watching the River Flow,” or even the “Please-Don’t-Make-Us-Clean-Up-Our-Mess Approach.” But their PR people went with “Monitored Natural Recovery.”

GE would have us believe that this approach involves allowing natural recovery to occur – the river heals itself over time. I’m surprised GE is even trying to get away with this one, although it’s not the most surprising idea presented in the video. (That award would have to go to the bucket of sand analogy which comes up later.)

The idea that nature will bury the PCBs over time is very appealing. We would all like it to be true, but it just doesn’t work that way. BEAT has been organizing river cleanups in the Housatonic River since 2002. We jump in with waders and shovels and dig out and pull out shopping carts, bicycles, bowling balls, and all sorts of objects that are often partially buried in sediments. This might sound like we’re making GE’s point, but those sediments came from some other part of the river. In some places we pull out old tires, bottles, radios, and televisions that had been covered in sediment for years but have recently been revealed as the force of the flowing river uncovers them.

The point is that the river is powerful and dynamic and the riverbed is always changing. Sedimentation rates and patterns on the riverbottom change with the seasons and with weather, and they’re different along different stretches of the river. If the riverbottom were always uniformly collecting sediment, the Housatonic River would slowly fill in and disappear. We certainly shouldn’t count on the idea that “…nature buries the PCBs remaining in the river.” Nothing stays buried for very long in the river.

Sometimes GE supplements this approach of having Mother Nature sweep things under the rug by dropping a thin layer of sand over the PCB-laden bottom. They like this idea. It’s cheap. They plan to do this in Silver Lake, despite cautions from local people that Silver Lake is fed in part by underwater springs. Underwater springs would bubble up right through the sand and bring the underlying PCBs to the surface again.

Keep in mind that according to GE, “monitored natural recovery” and capping will solve our problem by putting a very thin layer of sediment on the PCBs. Then we'll have PCBs in the sediment. Wait a minute. Isn't that the problem we're trying to get rid of? GE's own studies tell us that the average sedimentation rate along most of the river is between 0.05 inches per year and 0.6 inches per year. Is this really what GE sees as the solution to having PCBs in the soil? We need to get rid of PCBs – not hide them from view.

Notice the other part of the “Monitored Natural Recovery” approach. The narrator says that in this method, “PCBs are captured before they can enter the river upstream.” Most people don’t realize that PCBs are still going into the river upstream of the section in Pittsfield that is supposedly already cleaned. GE has been dragging its corporate feet for years on the issue of cleaning Silver Lake, Unkamet Brook, and their former property on East Street, all of which are upstream of previous cleanup activities, and all of which continue to send PCBs into the river. (Actually, Unkamet Brook is upstream of all of the previous work. The other two are upstream of most of the previous work.) If GE had the technology to prevent this, as the narrator suggests, why have they still not done it? I will have more to say about this when later in the video GE points to the cleanup of their former property.

The second approach presented by GE is SED 3/FP 3. This is the combination that uses GE’s approach SED 3 to clean the riverbottom and GE’s approach FP 3 to clean the floodplain. This combination is also the straw dog used to scare us, and it starts right here. “Five miles of river and 44 acres of forest and wetlands will be excavated. Another 37 acres of riverbed and 60 acres of Woods Pond will be capped with clean soil.” Later in the video, when GE describes each of the three showcased options in more detail, SED 3/FP 3 is portrayed as bringer of doom with images of heavy machinery and predictions of devastation. They describe 30 staging areas for construction crews and describe massive

construction and destruction along the river.

Let's keep in mind that this approach that GE and their paid spokespeople are warning us about, with their visions of heavy equipment and destroyed riverbanks, is GE's proposal, not EPA's proposal. Nobody other than GE is saying we should do this. The intent is to first convince us that there are only three proposals on the table, and then convince us that we had better quickly choose one of the other two that they are offering. I'm certainly not going to fall into the trap of defending SED 3/FP 3. I don't like it either. Instead, I would like to suggest that if GE finds this option scary, they should come up with a different one. I have an idea that might help them.

GE estimates the cost of implementing SED 3/FP 3 to be somewhere between $200 million and $300 million. Meanwhile, here's what the trade journals are saying about another part of GE's business. [Note: bn is billion.]

"GE has said that it will invest $1.4bn in cleantech research and development in 2008 as part of its Ecomagination initiative. As of October 2008, the scheme had resulted in 70 green products being brought to market, ranging from halogen lamps to biogas engines. In 2007, GE raised the annual revenue target for its Ecomagination initiative from $20bn in 2010 to $25bn following positive market response to its new product lines.[1]"

Could the problem be that all of the GE people with imagination are working in Ecomagination leaving no creative people for the cleanup. I suggest that GE go back to the drawing board and look for some real solutions. Spend some of your money cleaning the river you polluted. Stop saying, "It can't be done." Ask the people in Ecomagination for help. Put them on the cleanup. But of course, that wouldn't work. The current system by which GE proposes how it will be made to clean the river ensures that GE's incentives lie in the direction of not finding an effective solution.

The third solution offered by GE is SED 10/FP 9. Confused? You don't remember SED 10/FP 9 being mentioned in the video? SED 10/FP 9 is what GE calls the "Environmentally Sensitive Approach or ESA." They like this option, so they won't use their scary sounding designations. They will give it a warm and fuzzy name. Keep in mind that the whole point of EPA's task is to find an ecologically sensitive approach to cleaning up GE's mess. The fact that GE calls SED 10/FP 9 the ecologically sensitive approach is just another way for GE to say "We like this one."

The narrator continues:

"*The highest remaining concentrations of PCBs exist between Pittsfield, south of the confluence of the two branches of the river, and Woods Pond dam, in the adjoining towns of Lenox and Lee. South of the dam, the river is cleaner. In the 11 mile stretch between the confluence and Woods Pond, the river is wild. Home to more animals than people. It is one of the few places in the state where there is virtually no development along the river bank. The largest landowner is the Commonwealth of Massachusetts.*"

This seems to be basically accurate, although this is where GE begins to make its point that the wildlife and natural communities along the river are immune to the well documented effects of PCBs. I'm not surprised, since GE states many times in the CMS that if they don't like EPA's final decision, they reserve the right to sue the government. Their rationale is that GE does not believe that PCBs are harmful to people or to animals, and therefor they shouldn't be made to clean the river. In the CMS, GE says that tests on humans show no evidence that PCBs cause cancer or non-cancer adverse effects. This is very hard to reconcile with the majority of research done in this field. Perhaps GE should learn a lesson from the tobacco industry. If only the people who profit from a product say the product is safe, people tend to doubt your claims.

GE further says that the effects of PCBs on humans based on animal tests can't be trusted because the tissues of the animals used in the studies are much more sensitive to PCBs than are human tissues. It's

hard to reconcile this with GE's contention that animal populations along the Housatonic River are "thriving" despite high levels of PCBs in their tissues. Are animals overly sensitive to PCBs in the laboratory and insensitive to PCBs in the wild?

The narrator continues:

"*Professor Robert Brooks of Pennsylvania State University, first came to study wildlife on the river in the 1970s.*"

[Professor Brooks in a canoe on the Housatonic River] "*When you spend some time in a place, canoeing or walking, you really get to know it well. And I've come to appreciate what incredible biodiversity there is in this section of the Housatonic. To have a resource like this in your backyard is a real treasure.*"

Does this seem odd to anyone else? Is it just me? Berkshire Community College has a biology department and an environmental studies department. MCLA does too. Not very far away we have the Five Colleges including the University of Massachusetts. Just to the west we have SUNY Albany. I'll bet many of our local biologists and environmental scientists would have been willing to speak about PCBs and the Housatonic River for free. But GE wouldn't want to give most of them a public platform.

So the guy from Pennsylvania is going to tell us not to worry about the stuff dumped in our backyard by the company that after dumping it pulled up stakes and left town. Come to think of it, GE's CEO Jeff Immelt used to live in Pittsfield but decided to leave town. Somehow I'm not reassured.

At some locations along the river south of Pittsfield there are places where the riverbank includes high mud walls that are used by kingfishers and swallows for nesting. Any attempt at removing PCBs from these high-walled banks would probably result in at least the temporary loss of nesting habitat for these birds. GE would like to focus our attention on this issue as the video resumes.

[Prof. Brooks]

"The river is carving through the floodplain creating these microhabitats. That creates tremendous diversity, both in habitats and in species that live in those habitats. In this section we see very high banks, those are prime nesting sites for kingfishers and bank swallows. Kingfishers also use these sites for foraging perches."

I am glad that Professor Brooks is calling attention to the microhabitats along the river. I would like to do that as well. GE has put a lot of energy into convincing us that there are three options for remediating the river. They are, as I've said, "Monitored Natural Recovery" in which GE watches (monitors) the river as it supposedly heals itself, SED 3/FP 3 in which we dig up the entire river with heavy construction equipment and send wildlife scurrying into the hills, and SED 10/FP 9 which GE renamed "The Ecologically Sensitive Approach" in an effort to sell it to us.

The fact of the matter is that we can choose to remediate each microhabitat in a way that is best suited to that habitat. To suggest that if we choose SED 3/FP 3 we will have to destroy the nests of kingfishers and swallows is wrong on at least two counts. First, we aren't choosing one approach for the whole river. Second, we are not limited to the three approaches GE is asking us to consider. So what's the solution to the high banks? Leave them alone. Chances are they don't have high levels of PCBs anyway. Just leave them. Keep in mind that these high banks are cut back by the river every year, revealing a new face as the river continually changes its shape. And if we do find that the banks have high levels of PCBs, we don't want birds nesting in that soil anyway. GE doesn't want us to apply our analytic skill to the process because that takes some of the scare out of remediation. Am I alone in thinking that GE is trying to scare us out of remediating the river?

I mentioned last week that GE's report to EPA is called the **revised** Corrective Measures Study or

CMS. This is the report in which GE makes its suggestions for PCB remediation to EPA. The original CMS was submitted by GE in 2008. EPA sent it back stating "EPA has completed its review of the General Electric Company's (GE's) Corrective Measures Study (CMS) and, after consideration of input received from the public and state and federal agencies, EPA is requiring GE to address over 150 inadequacies or other comments."[1] What didn't EPA like? Of the 150 inadequacies, EPA bulletted 18 of them. Here's one of those 18.

"EPA notified GE of EPA's concerns regarding the need for a balanced assessment of the CMS evaluation criteria, including that the CMS focuses unevenly on the short-term detrimental effects rather than the long-term positive effects of the remedial alternatives and highlights percent reductions in PCB concentrations, rather than the more important effects of the risks remaining after the cleanup."

In other words, stop telling us how scary the remediation is going to be and start telling us how you're going to clean the river. I don't think the revised CMS did any better than the original CMS on this point. GE has no incentive to do an honest appraisal of how best to clean the river. As a corporation, their incentive is to convince everyone that a cleanup cannot be accomplished without destroying the river. EPA asked GE for their suggestions. GE has answered. They have failed. They say it can't be done. I think at this point EPA should take GE out of the process and brainstorm with the public, with other agencies, and with scientists to find a real solution. GE's only role in cleaning up their mess should be to pick up the tab for the cleanup.

[narrator]

"There is plenty for the kingfishers and other birds to eat. Twenty-five types of fish, including perch and large mouth bass, thrive in the river and its backwaters."

Does GE really want to point to the fact that fish make up most of the diet of kingfishers. Do I have to remind GE that they are required by law to maintain the warning signs along the river that forbid us to eat the fish in the river. We are also prohibited from eating the ducks that are on the river.

Those Housatonic perch that the narrator is talking about as the video shows a kingfisher eating a fish, have a mean PCB concentration of 87.3 mg/kg in their fat tissue. (NOTE: mg/kg is the same as parts per million). For large mouth bass the percentage is 97.1 mg/kg.[2] And I'm not sure what the narrator means by thriving. The fish are reproducing and surviving despite observed anatomical malformations and high levels of PCBs in their tissues. If GE considers this thriving, then I would suggest that they are setting the bar a bit low.

[narrator]

"The region is also home to larger mammals that range through the thousands of acres of wetlands and forests flanking the river."

[Professor Brooks]

"Black bear, bobcat, fisher, coyote. They use this forested riparian corridor as an important habitat and dispersal corridor."

Yes, you can find large mammals along the Housatonic River. You can also find large mammals in the rest of the county and in the rest of the state. This is hardly something to point to in order to say PCBs aren't affecting wildlife.

One mammal species for which we have PCB-related data is the mink. This is a mammal that's diet is made up mostly of fish. Researchers at the University of Michigan fed fish that were caught in the Housatonic River to young mink (kits). Why were they doing this study? According to the researchers:

“The Housatonic River flows through habitat that has historically sustained viable populations of piscivorous species, such as mink. Recent field studies have demonstrated a paucity of this wildlife along the more highly contaminated sections of the river. Viable populations inhabit nearby reference areas, suggesting that PCBs potentially have an adverse effect on these species. Thus, the present study was designed to evaluate whether farmraised mink fed diets containing PCB-contaminated fish from the Housatonic River would exhibit impaired reproductive performance and/or offspring (kit) growth and survival.” Remember the narrator’s claim that wildlife is thriving along the Housatonic River?

So what was the result of the study? Half of the mink kits died. The concentration of PCBs in the fish they were fed was 4 mg/kg. Remember that the mean tissue concentration in the perch and large mouth bass were many times greater than this (87.3 mg/kg and 97.1 mg/kg). Also, according to the researchers, “Because inclusion of PCB-contaminated fish that comprised less than 4% of the diet impacted mink kit survival, it is likely that consumption of up to 8-fold that quantity of HR fish, as could be expected for wild mink, would have an adverse effect on wild mink populations.” In other words, wild mink living along the Housatonic River would have eaten 8 times as many fish and those fish would have been much more contaminated.

[narrator]

“The river and the surrounding area also provide critical habitat for twenty-eight state-listed endangered, threatened, and special concern species. Sensitive species like the Jefferson Salamander, the wood turtle, and the wood frog, can all be found here.”

The amphibians (frogs, toads, salamanders) living along the Housatonic River are not thriving. Certainly wood frogs aren’t. I’ll save a discussion of amphibians for later in the video when GE’s narrator and Professor Brooks tell us about vernal pools. But what about those threatened and endangered species?

EPA looked at three species that they felt were representative of the 28 threatened and endangered species. They studied the bald eagle, the small-footed myotis (an insect-eating bat), and the American bittern (a wading bird). They concluded that “The risk characterization indicates that American bitterns … and bald eagles are likely at high risk, and small-footed myotis are at intermediate risk as a result of exposure to PCBs and other contaminants in the PSA.” [NOTE: PSA is primary study area or the river above the Woods Pond dam] I believe that if threatened and endangered amphibians had been added to the study group, the conclusions would have been that they too are at high risk. As a matter of fact, in a separate part of the EPA’s report directed at the assessment of amphibian populations in general, rather than at just threatened and endangered species, the EPA said “The risk characterization indicates that there is a high probability of ecologically significant risk to amphibians such as leopard frogs … above Woods Pond Dam. In addition, several large areas of the floodplain may pose risk to amphibians between Woods Pond and Rising Pond, with only small isolated areas of potential risk downstream of Rising Pond.”

The risk to threatened and endangered species does not come from remediation. It comes from the PCB contamination in their environment.

[narrator]

“Because of the unique character of the river and its floodplain, the upper Housatonic was designated an Area of Critical Environmental Concern by the Commonwealth of Massachusetts. As a result, the state must now closely review any action that could damage this natural treasure.”

Let’s pause for a moment to consider the hypocrisy here. We’re being admonished by GE that we have to protect this “natural treasure.” GE is the corporation that dumped PCBs into the river, buried barrels of PCB-laden waste throughout the floodplain , allowed PCBs to drain directly into the river, gave

away PCB-laden fill as clean fill, and created a toxic waste dump next to an elementary school. GE is responsible for more Superfund sites than any other corporation in this country. They are telling us to protect this natural treasure? I for one am outraged that GE would even consider admonishing me to take care of the river. Nowhere in this video does GE take any responsibility for the harm they did to this natural treasure.

And yes, the upper Housatonic is now an Area of Critical Environmental Concern. This is just one more reminder that we have to do what's best for the river and its wildlife, not what's best for GE's bottom line.

[narrator]

"This stretch of the Housatonic is also a favorite spot for hunters, birdwatchers, and outdoor enthusiasts. Even the most observant nature lover can't see the PCBs that remain in the riverbanks. The average amount of PCBs found along this bank is estimated at 15 parts per million. If this bucket of sediment contains over two million grains of sand and soil, PCBs would account for 30 grains. Amounts in the water are more than 1,000 times lower than that."

To me, this is the most amazing part of the video. Let me see if I can understand the logic. "Even the most observant nature lover" can't see molecules such as PCBs, therefore PCBs can't hurt us. I think I learned in third grade that we can't see molecules, but that they make up the "stuff" of our physical world. And as for the equally childish bucket-of-sand analogy, let me offer this observation. The fact that it takes only 30 grains worth of PCBs to cause all the trouble we're seeing in the river is compelling evidence for the toxicity of the chemical GE so freely dumped on us. I would also like to point out that their 15 parts per million figure (30 grains of PCBs per 2 million grains of sand) is an average. The river has "hot spots" where the PCB concentrations are very high, and there are places where the river has little to no PCBs. This is one of the reasons we should be able to remediate different parts of the river using different approaches. There is no need to turn the river into one big construction site as GE has been stating in its attempt to scare us away from any remediation.

[narrator]

"*To deal with the PCBs, many approaches have been suggested. Most will significantly change the appearance and function of this popular river. One approach is simple – keep the river as it is, and continue to reduce the amount of PCBs entering the water from the former GE facility. This approach has been underway for more than three decades"*

Yes, this is a popular river. It would be even more popular if someone hadn't dumped PCBs in it. And yes, GE managed to do so much damage to the river, that any approach to fixing it will have some painful consequences. One can only wish that GE didn't favor dumping toxics into the river when that was to their advantage, and fretting about harm to wildlife when that was to their advantage.

What about the idea that we "keep the river as it is, and continue to reduce the amount of PCBs entering the river from the former GE facility." Since the courts have already mandated that GE reduce PCBs entering the river from its former site, this suggestion offers nothing. It is the approach by which GE walks away from any further responsibility for the harm they have done. And if GE wants to characterize this lack of responsibility as having been "underway for more than three decades," I will be right there agreeing with them.

[narrator]

"*Upriver in Pittsfield there are PCBs in the soil and groundwater close to where factories once used the chemical."*

Factories? What factories? GE is the sole source of PCBs in the river. All of the PCBs in the river are

there because GE dumped PCBs into the river, buried barrels of PCB-laden waste throughout the floodplain, allowed PCBs to drain directly into the river, and gave away PCB-laden fill as clean fill. When they were told to get the PCBs out of the river, GE created a toxic waste dump next to an elementary school.

[narrator]

"*To keep them from reaching the water, a complex system of pipes and pumps sucks them out of the ground. This effort will continue for years to come"*

As I've said before, the pipes and pumps being referred to are upstream of the part of the river in Pittsfield that has already been remediated. They are on the former GE site along East Street in Pittsfield. Let me point out three problems with GE's statement regarding these pipes and pumps.

First, the pipes and pumps being referred to do not keep the PCBs from "reaching the water." The pipes and pumps are an attempt at sucking the PCBs out of the groundwater. The PCBs are already in the water.

Second, the pumps are not completely effective. They are allowing some of the PCBs in the nearby groundwater to get through – upstream of the cleanup.

Third, there are at least two other sites that are still sending GE's PCBs into the river and that are beyond the reach of these pipes and pumps – Silver Lake and Unkamet Brook. Are there other PCB dumps that we don't know about? I know that every time someone puts a shovel into the ground in Pittsfield, they wonder if they're going to find PCBs and underground barrels.

In 1998, The Berkshire Eagle ran a story entitled "Pollution's Paper Trail: GE's trove of records eluded regulators." It begins,

"*GE has recently released to state and federal environmental agencies tens of thousands of pages of records about PCB disposal practices – including historic records of disposal sites that throughout the 1980s GE's top local environmental officials asserted did not exist. In 1984, the Environmental Protection Agency decided not to place GE's transformer plant and a long stretch of the Housatonic River in the fledgling Superfund program based primarily on the misperception that the chemical contamination from GE's 60-year transformer operation was for the most part confined to the 250-acre East Street plant and the river."*

Keeping regulators from putting the Housatonic River into the Superfund program may have been a sufficient motivation for hiding the whereabouts of other contaminated sites. But here's another possibility. During court cases in 2003, in which some residents of Pittsfield tried to collect damages for the harm done by GE in dumping PCBs on their property without revealing this fact, GE responded that statutes of limitation had expired.

One year later, the Commonwealth of Massachusetts filed a complaint against GE in court. It reads in part, "Specifically, the Commonwealth alleges a failure to notify the Massachusetts Department of Environmental Protection ("DEP") of a release of hazardous material to the environment, and the making of inaccurate, incomplete, misleading and untimely submittals to DEP with respect to such release."

These are the same people making this video and telling us that they are keeping PCBs from reaching the water. Their feeble attempts are inadequate, and we have no assurances that we have been told about all contaminated sites.

[narrator]

"*With the flow of PCBs reduced, monitored natural recovery would rely on nature to slowly bury any*

PCBs remaining in the river."

Notice that GE is agreeing to reduce, not stop, the flow of PCBs into the section of the river in Pittsfield that is upstream of the already-remediated section. GE should have started with this upstream section to prevent additional PCBs from contaminating downstream sections involved in cleanups. Instead they dragged their corporate feet and put this off for as long as possible. GE should also stop, not reduce, the continued flow of PCBs into the river.

[narrator]

"*Habitat would be left intact, and the animals that live here would remain undisturbed. Other plans being considered would have a much greater impact on this ecosystem."*

Now GE begins its presentation of the three remediation approaches it would like us to consider.

[narrator]

"*One such approach is SED 3/FP 3. SED 3/ FP 3 calls for the removal of most of the PCBs from the river and riverbanks in the 5 miles of the river south of the confluence of the east and west branches."*

As I've said before, BEAT agrees that SED 3/FP 3 is a scary option. GE invented it, named it, and is now presenting it to us. GE needs this option as a way to scare us into accepting its favored options. BEAT believes that GE needs to be sent back to the drawing board, or better yet, removed from the cleanup process. Their only contribution should be to pick up the tab.

[narrator]

"*Forty-four acres of forest , wetland, and other natural areas would also be excavated. Woods Pond and about 37 acres of riverbed would be capped with a layer of clean soil."*

Whatever decision is reached in cleaning the river of PCBs, some excavation will be necessary. It's unfortunate, but this is the result of GE's decades of disregard for the environment and for the people of Berkshire County. But how much excavation? And what about capping Woods Pond with "a layer of clean soil?"

Clearly, capping won't work. A thin cap of a couple inches means that one crayfish burrowing into the bottom sediment, or one muskrat rubbing his belly along the bottom will defeat the cap. A thick cap or a cap with stone placed over it will drastically change the substrate for burrowing animals. Also, any cap just postpones the problem. PCBs will still be there, and at some point in the future, when GE's legal responsibility is past, we will have to deal with it on our own and using our own budgets.

BEAT has been asked if we favor a less aggressive or a more aggressive cleanup than the one suggested by GE. I don't know how to answer that question. BEAT feels that each microhabitat should be looked at individually, and an appropriate remediation for that microhabitat should be decided upon. In the case of the high riverbanks in which kingfishers and swallows nest, we would favor a less aggressive approach, unless these banks are found to have very high levels of PCBs, which is unlikely. In the case of Woods Pond, we would favor a more aggressive approach. Natural recovery will not take place. Intervention is needed.

By asking us to consider SED 3/FP 3, GE implies that we must choose one remediation approach and apply it. SED 3/ FP 3 does suggest different approaches for different sections, but those sections are quite broad. They are not the microhabitats that GE's Professor Brooks tells us we must protect.

[narrator]

"*To remove the PCBs, the river will become a construction site. Rows of steel sheets will be driven into the ground to build temporary coffer dams so sections of the river can be drained. The riverbed and*

adjacent areas are then dug up and hauled away. But for each ton taken out, another ton of clean soil must be brought in."

Again, this can be avoided by making some reasonable decisions about which microhabitats need excavation and which don't. However, excavation will be needed in some places.

How disruptive is this construction process that GE tells us will destroy the river? Here is a recent photo of the river as it passes Dorothy Amos Park on the West Branch of the Housatonic River in Pittsfield.

This is the area featured in the next part of the video in which GE and its contractor tell us that excavation devastates the river and that the river cannot recover from such construction practices. The photo was taken on January 4, 2011, less than two years after the work in GE's video.

[narrator]

"*Similar work was recently done on the west branch of the river in Pittsfield. Stu Messur was one of the project leaders."*

[Stuart Messur]

"*Right now we're standing actually in the bottom of a river that's been cordoned off with some sheet piling. The river was dewatered and excavation has occurred."*

[narrator]

"*This type of construction is slow and difficult."*

[Stuart Messur]

"*We're typically talking weeks to do a couple hundred foot stretch. A half a mile of river in the north country like this could take on the order of a year to two years to do."*

Less than two years after the construction showcased by GE as the construction that destroyed the river, the Housatonic River again looks like a normal river and members of the community can use the adjacent park and its basketball courts. It may have been "slow and difficult" for GE, but sometimes that's the price you have to pay for your mistakes.

[narrator]

"*To get at soil containing PCBs, all of the vegetation must first be torn out. All along the river trees that have stood for a century will be cut down and hauled away.*"

[Stuart Messur]

"*These banks obviously did not look like this to begin with. What you had previously here was a nicely vegetated bank along the river. In order to get these soils out, all of that vegetation needs to be removed and destroyed. Any trees that are overhanging the river or that are growing within twenty or thirty feet of the river are going to have to come out. This sort of removal may be required for extensive lengths of the river and actually on both sides.*"

Stuart Messur tells us that GE's ongoing work will destroy the river.

The same spot on the same river less than two years later.

[narrator]

"*It is estimated that it will take crews at least a decade to complete SED 3/FP 3. Miles of wetlands and forests that surround the river will also be dug out.*"

The two photos above are of the same site taken from the same angle. The second photo was taken less than two years after the first. Had the second picture been taken in summer, when leaves were on the trees, it would be even more clear that Stuart Messur's and GE's predictions of destruction were unwarranted.

We can only repeat that if we use common sense in remediating the river, GE's self-invented nightmare scenarios can be avoided. And why is one of the largest corporations in the world using such last-century technology? There are much more advanced technologies than what is shown in the video. There are computer controlled dredging machines that minimize the amount of mud and water escaping from the construction site. There are chemical and biologic remediations that have been shown to work. Housatonic River Initiative (HRI) and Dr. David Carpenter of SUNY Albany have for years been asking GE to investigate alternative technologies. Where is GE's Ecomagination?

[Professor Brooks]

"*All of this floodplain soil would be excavated, this groundwater wetland depression in the background would be excavated, and all the trees would be cut. So the vegetation would be completely removed,*

and we'd just have bare ground. What would happen to the habitats for the animals and plants here? They would be gone."

The only areas that should have to be remediated to the extent described by Professor Brooks are those areas that have high levels of PCBs. If that area has high levels of PCBs, then it should be dug out and replaced. And as to Professor Brook's question as to what will happen to the habitats, I would like to point out that if the area has high levels of PCBs, Professor Brooks should be worried about those animals. Keep in mind that the majority of carcinogens are also mutagens (mutation-causing agents). Scientists suspect that that's how they cause cancer. This means that even for those animals that are able to reproduce, what is the future? What type of genetic load are their offspring carrying?

Also keep in mind that the clever photoshopping done to show how the remediated area would be devoid of trees is misleading to put it nicely. Remediation includes replanting trees. Other remediation efforts tell us that the trees that would be planted there could be of the order of ten feet tall. Remediation for any given microhabitat should be appropriate for that microhabitat. This would mean replanting with native species in a manner that would support wildlife. All of this means that the area after remediation would have more trees than Professor Brooks' "before" pictures.

[narrator]

"*To deal with the PCBs, 30 staging areas will be built requiring the removal of 48 acres of forest. To access them, dozens of new roads will crisscross these once quiet forests and wetlands. If this approach was taken on the river south of the confluence in Pittsfield, the impact would be dramatic."*

Clearly there was no thought given to minimizing the effects of the proposed construction sites. Thirty staging areas of the size represented in the video? This is again clearly designed to scare us. I'm sure if GE puts some thought into it they could figure out how to manage a construction site more efficiently. At least one contractor claims that they could cover the same stretch of river with only two relatively small staging areas.

[narrator]

"*SED 3/FP 3 would also have terrible consequences for the region's vernal pools. Vernal pools are seasonal ponds that provide essential habitat for a wide range of wildlife. They are critical to the functioning of the upper Housatonic ecosystem."*

GE will now attempt to convince us that vernal pools are "thriving" (a word they love) and that remediation of the river will destroy them.

[Professor Brooks]

"*This is a vernal pool. At this time of year the water is below the surface and the amphibians have left for the time being, but a month earlier we were here and all these pools had water in them. We expect to see wood frogs here, spotted salamanders, and in this vicinity we have one of our threatened species in the state, the Jefferson salamander."*

So far we're good. Vernal pools are temporary pools, and a month earlier there was water in the pool. And yes, in our area we would expect to see wood frogs, spotted salamanders, and possibly Jefferson salamanders. Note: Professor Brooks did not say that's what he saw. He said that's what one would "expect to see." So what was actually seen in the "thriving" pool before remediation? We'll get to that in a little while.

The next section of the video's narration just astounds me. If you know the facts, it can only make you angry.

[narrator]

"*Wildlife is thriving, even though the vernal pools contain PCBs. To remove them the pools would be dug out and the surrounding trees chopped down. The impact on wildlife would be devastating.*"

[Professor Brooks]

"*And what's important is that all of these species come back to the same ponds to breed. They have a lot of site fidelity. So if the ponds are not here or if they're removed for a few years there's no place for them to go and those generations will perish.*"

[narrator]

"*This pool located near the confluence in Pittsfield was dug up and rebuilt in 2006. To get at the sediments, trees were cut down, and the complex systems governing the flow of water were disturbed. More sunlight brought new predators.*"

[Professor Brooks]

"*Basically we've replaced the kinds of amphibians that should be here. This summer we had an undesirable amphibian, green frogs, completely lining the shoreline, and they're a predator on the larvae, the tadpoles, of the amphibians we like to see, which are the spotted salamander and wood frog. So the nature of the pond is completely changed through the excavation and cutting of the trees along the edges.*"

So, as the narrator says, "trees were cut down." Professor Brooks reinforces this point. "The nature of the pond is completely changed through the excavation and cutting of the the trees along the edges."

After hearing this, how extensive do you think the cutting was? How many trees would you guess were cut. Would you believe one tree. A 15″ diameter cottonwood tree was removed. (This is from GE's own documentation of their work at the site.) It was removed so that GE's equipment could get into the site. After the pool was dug out, 10 cottonwoods were planted as part of the restoration. The restoration also included the planting of 20 other trees. I've visited the site. There are more trees now than before the remediation.

What about the change in the pool's inhabitants after remediation? Professor Brooks says that the loss of the "trees" caused a change in the kinds of amphibians in the pool.

Here is a table showing the amphibians present before the remediation and those present after the remediation. (click to enlarge)

Presence of Obligate Species - Vernal Pool 8-VP-1

- 19 field surveys conducted during breeding season by EPA in 2009-2010
- 2 field surveys reported by GE (April 22, 2009; April 8, 2010)

Obligate Species N/O = Not Observed	Pre-remediation				Post-remediation	
	1998	1999	2000	2003	2009	2010
Wood Frog	yes (~18 egg masses	yes	yes	yes (~31 egg masses)	yes (EPA)	yes (75 egg masses)
Fairy Shrimp	N/O	yes	yes	N/O	yes	N/O
Spotted Salamander	yes	yes	yes	N/O	N/O	yes (EPA)
Blue-spotted Salamander	N/O	N/O	N/O	N/O	N/O	N/O
Jefferson Salamander	N/O	N/O	N/O	N/O	N/O	N/O
Marbled Salamander	N/O	N/O	N/O	N/O	N/O	N/O

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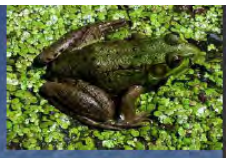
Note that wood frogs, spotted salamanders, and even the less common and more sensitive fairy shrimp are present after the remediation.

Here's another EPA table (click to enlarge) that shows that green frogs were present in 26 of 45 vernal pools looked at before remediation. The vernal pool discussed by Professor Brooks in the video is one of the 26.

Comparison to Other Vernal Pools Non-obligate Species Observed



- By EPA in 45 pools between 1998-2000 (including 8-VP-1)

Species	No. of Pools Observed
American toad (*Bufo americanus*)	11
Bullfrog (*Rana catesbeiana*)	16
Four-toed salamander (*Hemidactylium scutatum*)	1
Garter snake (*Thamnophis sirtalis*)	11
Green frog (*Rana clamitans*)	26
Gray treefrog (*Hyla versicolor*)	4
Northern leopard frog (*Rana pipiens*)	22
Painted turtle (*Chrysemys picta*)	13
Pickerel frog (*Rana palustris*)	3
Red-spotted newt (*Notophthalmus viridescens*)	13
Red-backed salamander (*Plethodon cinereus*)	5
Snapping turtle (*Chelydra serpentina*)	10
Spring peeper (*Pseudacris crucifer*)	23

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Species found in vernal pools before remediation. (EPA's data)

Professor Brooks' is wrong when he tells us that predatory green frogs arrived (they were already there) because of the tree cutting (only one tree was cut) and changed the nature of the pond (the species he discussed were present before and after remediation).

Professor Brooks also brings up the issue of site fidelity. Since the amphibian populations are present in

the pool after remediation (GE's data), we can expect those amphibian populations to return in coming years. He also wonders what will happen "…if the ponds are not here or if they're removed for a few years." Not here? Removed for a few years? The post-remediation data show no gaps. Not even one year in which there are no amphibians.

What about the contention that the vernal pool was thriving before remediation. An EPA study looked at 27 vernal pools along the Housatonic River. They found that malformations in wood frogs were correlated to PCB levels in the pools. Population densities of wood frogs were also correlated to PCB levels. Higher PCB levels meant fewer frogs in the pool.

I feel we can safely say that remediation of these pools is necessary and that we can remediate these pools effectively.

I believe that remediation of the vernal pool would have been even less disruptive to the vernal pool habitat if GE had used equipment of appropriate scale. A small excavator such as a Bobcat© or even workers with shovels would often be much more appropriate than the larger equipment typically used by GE for remediation in wooded or brushy areas. Maybe even that one cottonwood tree could have been spared. The cost to GE would be greater due to an increase in the amount of worker hours needed to complete the project, but GE could perhaps console itself by remembering that they saved a great deal of money by not disposing of the PCBs properly in the first place.

The video continues:

[Professor Brooks]

"*Some people say it's easy to remediate a vernal pool, and that's just not the case. These are much more complicated systems than people realize. Even though this is probably one of the best efforts to try to remediate a vernal pool, this shouldn't be considered a success."*

The vernal pool has more trees than previously, it has the same species of amphibians in it, and the PCB-laden soil has been replaced (Oh, they didn't mention that part in the video). This can only be considered a failure if you're GE and hoping nobody will ask you to remediate the rest of the vernal pools along the river.

I'm not saying that this vernal pool is a pool without problems. It wasn't a very functional vernal pool before the remediation, partly due to the presence of PCBs. We're going to find these same problems in other vernal pools along the river since they too have elevated levels of PCBs. But the point is, remediation removed the PCB-laden soil and then put this vernal pool back the way it was. The pool now has a chance to recover and become a better functioning pool.

One last point on the issue of vernal pools. In the video, GE takes a photo of a vernal pool, and by using photoshopping techniques, they present their vision of devastation that would be caused by remediation. This technique isn't necessary when a real post-remediation site is nearby and available for photographing. However, the real site would show that remediation works. There is no destruction. In a photoshopped image, you can remove all nearby trees and thereby scare people. In reality, those trees were just one solitary tree. Frankly, I think GE's use of this technique throughout the video is disgustingly dishonest.

[narrator]

"Large mammals depend on the interconnected corridor of wetlands and forest that flanks the river."

[Professor Brooks]

"These species will move miles and miles on a daily basis, so you have to have connectivity up and down the corridor and from the floodplains to the uplands to make sure those species have adequate habitats in which to survive."

Well there's a scary thought. Not only do we have to worry about harm to our own local wildlife, but we also have to worry about the harm being spread to other areas as animals move through our PCB-laden river corridor. Let's clean up the PCBs. It's the responsible thing to do.

[narrator]

"Carving the Housatonic River Corridor into dozens of staging areas and access roads wold imperil these species. After about ten years, the trucks will take their last load. But the river won't be the same. The shady, wild Housatonic of today will disappear into history.

In the best case, it would take at least half a century for these forests to be what they are today. The animals that rely on these forests won't be able to wait. Generations will grow up alongside the river that bears little resemblance to what it once was."

At this point, I think we can all agree that GE has lost its credibility. Now they're just making stuff up. Yes, carving the river corridor into dozens of staging areas and access roads would be harmful to species. Again, nobody other than GE is suggesting we do this. Why thirty staging areas? Another contractor (Genesis Solutions) has said they could cover the same stretch of river with just two relatively small staging areas. Of course, they have no motivation to try to scare us.

[narrator]

"Other approaches being considered by the federal government involving even more digging over longer periods of time would have an even more devastating impact on the region."

OK. This is just wrong. By the federal government, GE means EPA. Yes, it is true that EPA is considering some very drastic and potentially very harmful approaches to cleaning the river. Why? Because GE submitted them to EPA, so EPA is bound to consider them before commenting. All of this is intended to scare us into putting pressure on EPA to choose the approach that would cost GE the least amount of money, even though it's not what's best for the river. GE has no intention of making an honest effort in cleaning the river.

[narrator]

"Fortunately, there is another way. It is called the ESA - the ecologically sensitive approach. A way to clean the river without losing it. Unlike SED 3/FP 3, which calls for the excavation of five miles of river and even more floodplain, this approach would be far less destructive, but as protective of humans and considerate of the wildlife already living in the area."

Yes, SED 3/FP 3 is more destructive than ESA. Neither plan is acceptable.

[narrator]

"All work done on the river and floodplain would be guided by the following criteria. Sediments and soil would be removed to meet EPA's human health standards. "

I should hope so. But determining whether a given approach will meet human health standards is not as easy as one might think. Just because GE says this approach will meet human health standards does not mean that it will. From his home in New York, Jeff Immelt's health will be fine. From his home in Pennsylvania, Professor Brooks' health will be fine. Those of us who actually live here need to be more skeptical.

[narrator]

"Stretches of the river containing large numbers of species of concern would be avoided. Whenever possible, critical habitats like vertical riverbanks would be maintained whenever feasible. The number of access roads and staging areas built on floodplains would be limited. The natural hydrologic processes responsible for the diversity of habitats in the river and surrounding area would be preserved. Finally, the impact of all removal-related activities would be minimized."

[Professor Brooks]

"As an ecologist, my preference would be to leave the river alone. However, with the ESA, we would be protecting much of the forest and riparian bank that together make up the very critical floodplain for this upper part of the Housatonic. That's a much better approach to protect the biodiversity and the habitats and the hydrologic functions of this floodplain."

[narrator]

"Miles of critical habitat and breeding grounds would be saved. Wildlife would be allowed to continue to thrive here. Acres of mature forests, vernal pools, and wetlands targeted for removal by other approaches will be spared. Instead of thirty staging areas and 25 miles of new and expanded roads, the ESA would require just ten mile of access roads, and approximately one third the number of staging areas. Fewer excavated areas, roads, and staging areas mean fewer interruptions for animals that hunt and live along this corridor. And the work would take just seven years."

Of course "stretches of the river containing large numbers of species of concern would be avoided." This approach avoids cleaning most everything. Let's remember what our task is. PCBs are in the sediment and they need to be reduced to acceptable levels. Why? Because they are harmful to people and to wildlife. To decide that an approach is good because it avoids the habitats of endangered and threatened species misses the point that the bigger threat to those species comes from PCBs. All of the points made here come from the fact that little to nothing is being done. It's true that we need to use good judgment in remediating sensitive habitats, but we can't start with the assumption that an approach is good just because it completely avoids dealing with sensitive habitats, although it is easy to see how after GE's scare tactics this would seem like a sensible assumption. There are ways, besides GE's sledge hammer approach, to deal with sensitive habitats. GE has no interest in exploring them.

[narrator]

"The ESA would remove more contaminated sediment than the more destructive SED 3/FP 3. Much of the sediment would be removed from Woods Pond where it has accumulated behind the dam. Because barges would be used in the pond, that removal wouldn't require damaging access roads and staging areas. The result would be an increase in the depth of the pond and an improvement of the ecological and recreational value of this popular resource. The ESA will allow nature lovers to safely visit the river as often as they like for the rest of their lives. The river will remain on of the jewels of the Berkshires. A thriving home to wildlife and a favorite destination for birdwatchers, hikers, and outdoor enthusiasts."

What do we have here? A bargaining chip? You mean only if we accept SED 10/FP 9 (I'm sorry. I meant the ecologically sensitive approach.) can we dredge Woods Pond? If this is a good approach to cleaning Woods Pond, we should do it no matter what approach we use on the rest of the river. There are no package deals except in GE's mind.

[narrator]

"As with all approaches being considered by the EPA, fish consumption advisories will remain in place."

Again, GE has submitted its report to EPA. If there are problems with the approaches that EPA is considering right now, GE should revise their suggestions.

[narrator]

"The choice is clear. The river can lose much of its wilderness, and the animals and plants that thrive there. Or we can preserve much of that wilderness and wildlife and still protect human health."

This sums up the problem so clearly. There is no choice that we are being asked to make. There are suggestions made by GE to EPA. EPA doesn't have to select from GE's list. We don't either. The whole concept behind GE's video is to make us believe that there are three choices and that we had better choose ESA or we may be forced to accept SED 3/FP 3. GE made up this game. Let's not play it.

[narrator]

"One approach [Monitored Natural Recovery] would require no disruption to the river while PCBs are prevented from migrating into it. Another [SED 3/FP 3]would remove most of the PCBs from five miles of the river and its banks and 44 acres of floodplain. This approach would take ten years and drastically diminish the ecological value and appearance of this river. A third, [Ecologically Sensitive Approach] the ESA, would meet EPA's human health standards but leave most of the river wild and available for use by humans and animals alike. It would also dramatically enhance the ecological and recreational value of Woods Pond."

This is GE's summary of its argument based on faulty assumptions, propaganda techniques, and misrepresentations. If you've followed me up to this point, you know I don't need to comment on this summary.

[narrator]

Three approaches, three futures for the Housatonic River. The decisions made now will determine how future generations will experience this natural treasure for decades to come.

Although it is not true that there are three approaches, the decisions that are about to be made are very important. I don't have all the answers. Nobody does. But together we have a better chance of making the right decision. Of course, that assumes we're all playing honestly. Thanks for listening.

Bruce Winn

President

Berkshire Environmental Action Team (BEAT)

BERKSHIRE GREENS www.green-rainbow.org

RECEIVED
JAN 28 2011
By

January 27, 2011
Susan Svirsky, EPA Rest of River Project Manager
C/O Weston Solutions
10 Lyman St.
Pittsfield, MA 01201

Re: Public comment period regarding GE's Revised Corrective Measures Study (CMS) Report for the Housatonic River Site, Rest of River; summary of CMS in the form of a video entitled "The Housatonic: The Fate of the River"

Dear Ms. Svirsky.

I am contributing my public comment as an individual who is a member of a group of voters in Berkshire County called Berkshire Greens because I know that sometimes government agencies wonder whether an individual's voice actually reflects a larger group of concerned citizens or not.

My viewing of GE's freely disseminated video "The Fate of the River" alarmed me. The video is full of erroneous assumptions and willful omissions, all geared to influence public opinion and allow the company, one of the largest in the world, to forego its responsibility to rectify the harm it has done for almost 80 years by dumping PCBs into and (still) allowing PCBs to freely flow into the Housatonic River, which runs from Pittsfield, MA, into the Long Island Sound, through the states of Massachusetts and Connecticut. The upper river has been designated an Area of Critical Environmental Concern (ACEC) solely due to GE's irresponsible and insensitive activity, which GE did not notify the MA DEP about when it could and should have (the MA DEP has classified this omission to be illegal). Since PCB flows haven't been stopped, PCB contamination has needlessly spread over 140 miles and through Connecticut.

A cursory reading of GE's revised CMS is again alarming and shows that GE is not performing its due diligence in fulfilling its legal duties (as requested by the EPA). Old-fashioned, ham-fisted, and inadequate techniques were presented in its original CMS, which the EPA already caught (150 counts of inadequacies), but these have not been adequately addressed in the revised CMS (18 superficially taken up by GE).

As the video points out, there are various microhabitats along the river and a larger area at Woods Pond dam, Lenox. I agree with the EPA's insistence that GE present a more nuanced approach to its cleanup operations. Thirty staging areas and large equipment are not suitable to the terrain. Remediation experts of today have many

10 Valores Principales del Partido Verde		**10 Key Green Party Values**
Democracia Local		Grassroots Democracy
Justicia Social		Social Justice
Entendimiento Ecológico		Ecological Wisdom
No-Violencia		Non-Violence
Descentralización		Decentralization
Economía Basada en la Communidad y Justicia Económica		Community-Based Economics & Economic Justice
Feminismo y Equidad Sexual		Feminism & Gender Equity
Respeta a la Diversidad		Respect for Diversity
Respnsibilidad Personal y Mundial		Personal & Global Responsibility
Sostenibilidad y Enfoque en el Futuro		Future Focus & Sustainability

less invasive solutions to the already old-fashioned rather primitive method of dredging and near-site dumping onto plastic tarps. I agree with the EPA's insistence that GE actually engage in due diligence and a goodwill effort by fully investigating and utilizing newer methods. And yes, if it means using compact excavators and a few people with shovels, let's use them (we can think of them as low-carbon green jobs for local residents—as long as they are physically protected from PCB contact themselves). Also, no more dumping near the site. Off-site thermal deposition, vermi-remediation, emerging technologies in remediation are what's needed.

I don't know how much GE spent on making its video. The video is full of Getty Images and "photoshopped" illustrations, and hired academics and environmentalists, many of whom are shown on site in the video. That can't be cheap. But evidently GE feels that if it can sway the public by hiring non-local "experts" and creating phony footage to forego its responsibilities, then that outcome would indeed be a cheap solution for GE. However, this is no way to address EPA's concerns! Further, I don't know whether the EPA can insist that GE spend more. The company currently spends $25 billion in promoting its "green" inventions, but disseminates a video where it clearly balks at spending $300 million in PCB cleanup. If the company truly stands behind its new "green" image, it should follow through on full, sophisticated, and nuanced cleanup of the PCBs in and around the Housatonic River. GE should be encouraged to put its money where its mouth is, so to speak. The cleanup of the Housatonic (Unkamet Brook and Silver Lake in Pittsfield) could in fact become a flagship project in remediation.

As the local BEAT organization has emphasized, there should be different remediation approaches for different habitats, especially microhabitats. Since remediation will take years, no matter which approach is opted for, the final approach should be flexible enough to be able to implement newer methods and technologies.

Most importantly, I feel it is highly inappropriate that this tax-subsidized mega-corporation, which clearly has skirted its responsibilities and downplayed the PCB risk to human and other life for almost a century, should be the only party presenting solutions for cleaning up the Housatonic River. Sure, GE has to spend a little money, and technically that may give the company a seat at the table. However, GE cannot seriously be expected to lead the way regarding exactly how a full and nuanced cleanup should occur (its video is plain proof of this), or that there are only 3 approaches the company will consider (one of which is to do nothing!), broken down into seven or eight vague sub-solutions. This is truly a slap in the face of all the populations between the Housatonic headwaters and the Long Island Sound. Since when are criminals the ones to decide their punishments or their rehabilitation? No, this is why the EPA and its state affiliates were established in the first place.

Residents in and near Pittsfield are sick and tired of being toyed with. We are now in our 4th generation of children (and adults) who are at the hub of one of the most egregious instances of PCB dumping (GE/Pittsfield even gets its own EPA New England, Region 1 index header!). GE knowingly handed out contaminated soils to residents years ago as fill material for driveways and such. PCBs are now everywhere, floating in the dust in the air. We breathe them every day. To add insult to injury, GE placed a lax dump site right next to an elementary school and buried barrels all over the place, which keep popping up accidentally because nobody knows where they are anymore. Plastic liners and metal barrels are no match for this toxin—we carry it in our blood and pass it on. As GE states in its video, it is still monitoring PCB flow, so there is ongoing leakage (from Silver Lake, slated to get a bit of plastic tarp, and Unkamet Brook, both upstream from previous remediation work). When will this stop?

Please demand that GE grow up and assume responsibility for its actions and activities by rejecting the revised CMS. We have lived with almost a century of toxic harm, we can live with a few years of remediation operations. In fact, only 4 years after the previous 2-mile remediation work on the river, the river is looking good and habitat natives have returned. Some returned to a vernal pool the very next season, as BEAT points out. The fight to save rare species must start with saving them from mutagenic PCB toxicity. Taxpayers already subsidize GE, which is scary. But what's truly scary is GE's video, not serious, conscientious, cutting-edge remediation.

Respectfully,

Wanda Boeke

Wanda Boeke Pittsfield, MA 01201)

BERKSHIRE INSURANCE GROUP™
A Berkshire Bank Affiliate

Ms Susan Svirsky
EPA Rest of River.Manager
c/o Weston Solutions
10 Lyman St.
Pittsfield, Ma. 01201

Dear Ms. Svirsky,

As a canoeist who spends over 50 hours per year on the Housatonic River between Pomeroy Ave and Woods Pond, I write this letter to express my strong opposition to the clean up and dredging of this section of the river. I would support the removal of PCBs from highly concentrated areas such as Woods Pond.

For the past 30 years my two sons and I have spent countless hours on this section of the river. Most of the local paddlers used this section of the river as their training area in the spring and fall. After March 1 it is not unusual to see as many as 20 canoeist and kayakers on the river on any given Saturday or Sunday morning. I can not remember ever paddling down the river without having a close encounter with beavers, muskrats, wild geese, ducks, ospreys and eagles. In the early spring we watch the bears come down to the river's edge with their cubs to feed on skunk cabbage. I have seen ospreys drop from 30 feet in the air and scoop up a Gold Fish. This area is a pristine Wildlife Sanctuary, which has remained undisturbed for the past 500 years. It is my opinion that anyone that is going to regulate this body of water should first take a trip down the river at first light and observe what will be destroyed if we let this section of the river be cleaned and dredged. I would be willing to accompany anyone from your office that has never paddled down the river.

The clean up and dredging that occurred in the first two miles of the river, substantially altered the eco-systems and scarred the natural beauty of the river. The proposed PCB clean up of the river will destroy the largest wetland area in The Commonwealth west of the Connecticut River. This area acts as a nesting and respite area for thousands of migratory birds. The large population of local Kayakers and Canoeist would be forced to abandon this area due to the large, jagged and obstructing rocks which would destroy the hulls of most watercraft. The fish and wildlife will have no shade or natural obstructions to protect them from the rising river levels and hot summer sun.

Please consider the contents of my letter before you make a decision to destroy one the true jewels of the Berkshires.

Tim

R. Timothy Minkler, CPCU, LIA
South Berkshire Manager
Berkshire Insurance Group, Inc.
31Main St./ P.O. Box 885
Stockbridge, Ma. 01262
Direct: 413-644-3590 Fax: 413-298-5102
Berkshire Bank Family of Insurance Agencies

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JAN 28 2011
By

BERKSHIRE NATURAL RESOURCES COUNCIL, INC.

20 Bank Row, Pittsfield, Massachusetts 01201 Tel: (413) 499-0596 Fax: (413) 499-3924 www.bnrc.net

January 31, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

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By

Dear Susan:

Berkshire Natural Resources Council supports clean-up and restoration of the Housatonic River and its floodplain that will remove as much PCB contamination as possible, while avoiding or strictly minimizing the use of bank armoring, so as to allow the river to continue to function as a dynamic, natural ecosystem. We recognize that aggressive removal of PCB deposits will represent a temporary, perhaps prolonged, disruption of natural processes and human recreational uses. This is the price our generation must pay in its effort to correct the mistakes of the past in order to pass a cleaner, healthier Housatonic ecosystem to future generations of humans and wildlife.

We have not chosen to either endorse, or reject, any particular protocol from the Revised Corrective Measures Study. Instead, we have outlined a series of principles and objectives that we believe should, if applied conscientiously and in coordination, lead us significantly toward the goal of a healthy, naturally functioning riparian ecosystem.

PCB Removal. PCBs must be removed from the river and its floodplain, and now is the time to do it. Housatonic River PCBs are entering and accumulating in the food chain. With every storm, PCBs are moving downstream; those that do not settle in Woods Pond are swept over the dam, increasing downstream contamination not only of the river, but of Long Island Sound and, from there, the world. Odds are high that any duck shot by a hunter along the Housatonic River not only shouldn't be eaten, but in fact should be disposed of as hazardous waste, given the levels of bioaccumulated PCBs found within sampled water fowl. Evidence of PCBs' effect on wildlife's immune, reproductive, nervous and endocrine systems cannot be dismissed. The heavily-chlorinated PCBs found in this watershed do not naturally break down, and are not "buried" by the river. Instead, they are picked up, deposited and redeposited by an ever changing river. PCB contamination will not be resolved by time; it will simply transform and concentrate itself. Given the available technology, we will be unable to remove every bit of PCB

contamination from the river, but a concentrated and aggressive clean-up will greatly reduce the harmful impacts.

Off-site storage of PCB-contaminated soil and sediment. Contaminated soils and sediments should be removed from the Housatonic watershed to be stored at a licensed facility. No PCB landfill should be sited in Berkshire County, either in the river or on an upland site. We agree that the transport of PCB contamination out of the county to an offsite landfill is less than optimal; the burden of storing contaminated soils will simply be transferred to another community, not erased entirely. However, the facilities exist to accept and store this contamination securely. If and/or when technology to destroy PCBs in situ is developed, the contamination will be in a secure, concentrated facility, ready to be treated in stable conditions.

Restoration. This will be the greatest test, and perhaps the most important. At the end of the process, the Housatonic River must remain largely free to migrate within the floodplain, creating and abandoning channels and oxbows in irresistible accord with dynamic water flow. Unless there are outstanding reasons to employ armoring in a few strategically critical locations, banks should remain natural, left to be cut and formed by the river, and to grow floodplain forests to maturity according to the course of natural processes. The potential redeposition (and ongoing removal efforts) of low levels of PCBs is a price we may have to pay for retaining a naturally flowing and functioning river. The alternative – locking the river in place with extensive armoring – is a death sentence, an entombment, and a "solution" likely to fail in time. Careful PCB removal, if followed by the highest standards of restoration, will certainly alter the river, but it will not destroy it; in time, natural processes will correct and override any errors mankind makes. Full-on armoring, on the other hand, will defeat the river; at least until that day that the river turns and defeats the armoring, and its purposes. A clean, naturally functioning river and floodplain is the objective.

Woods Pond. We endorse the idea raised by others that Woods Pond should be dredged on a recurring schedule. Woods Pond is the primary depository of PCBs moving downriver. If the river is allowed to function naturally after clean-up and restoration, it appears likely that PCBs will continue to be deposited in Woods Pond. These newly deposited contaminants should be removed on a recurring schedule.

Pace and Adaptive Management. It took decades for GE (and other industrial users) to fully contaminate this river; it has taken further decades to come to grips with the scope of the problem and potential resolutions. There is no reason why it should not take further decades to execute a cleanup and restoration. A slow, highly incremental pace will allow the project managers to learn from experience, and to adapt practices and protocol accordingly. Any agreement between EPA, GE and other parties must allow for adaptive management. Those practices envisioned as optimal in 2011 may well evolve in ensuing years as experience teaches us, and as new methods, equipment and technologies come available.

Technological Innovation. We take on faith the assertion by professionals that no applicable technology for non-invasive, *in situ* remediation currently exists at a scale that matches the problem. However, the remediation process must remain open to the possibility that such technologies will become pertinent to the problem at hand. We encourage EPA to seek and permit pilot experiments of emerging technologies.

BNRC recognizes that the remediation and restoration of the Rest of the River will be a phenomenally complex, protracted, ambitious, expensive and disruptive proposition. It is difficult to condone this intrusion upon a riparian system that the community loves so well, and that appears, on its surface, to be healthy and fully functioning. All evidence, however, suggests that the river and its floodplains are in fact contaminated and sick, and at continued risk of imperiling the aquatic and terrestrial communities – including humans – that use these areas.

BNRC can stomach the disruption of aggressive remediation and restoration by remembering that this river will flow for millennia after we are gone. If the long-term outcome is a significantly cleaner river that is allowed to functional naturally, with only minimal bank armoring and "artificial" management of banks and the floodplain, we believe that natural processes will soon override our imperfect efforts and reclaim this ecosystem. This result will require sacrifice and great investment by our generation – but future generations of humans and wildlife would ask no less.

Thank you for the opportunity to provide comment.

Sincerely yours,

Tad Ames
President

BERKSHIRE INSURANCE GROUP™
A Berkshire Bank Affiliate

January 28, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

I am writing to offer formal comment on General Electric's Revised Corrective Measures Study (CMS) recently submitted for Phase II of the Housatonic River Clean Up. On behalf of Berkshire Insurance Group, I strongly urge you to consider a low-impact clean up solution, which does not include extensive dredging, meets human health standards and does not destroy the river as we know it.

The Housatonic River, especially in this section of Pittsfield and Lenox is a jewel enjoyed by thousands of people annually. No one wants to see the river destroyed and the recreational activities lost or substantially changed for the worse. This is what we fear extensive dredging will do. The river and riverbanks, wetlands and surrounding vegetation will be dug up, thousands of trucks and construction equipment vehicles will travel through residential areas in southern Berkshire communities that rely on tourism for economic survival and local dump sites will be created. Access roads would also need to be built through forests and fragile wetlands causing widespread, extensive damage. We at Berkshire Insurance Group, the largest insurance agency in Berkshire County, encourage you to find a low-impact solution that will address the PCB problem, balance the economic needs of our residents and the environmental needs of the river area, while meeting the EPA's human health standards.

As a business leader I ask that the EPA take a cautious approach to this very important matter of PCB removal and strongly urge you to approve a method, which would have the least negative impact on the Berkshire County economy and environment.

Thank you for the opportunity to comment on such an important decision.

Sincerely,

Steven W. Cronin, CIC

Vice President

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By

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31 Main Street, Stockbridge, MA • 31 Court Street, Westfield, MA

BERKSHIRE INSURANCE GROUP™
A Berkshire Bank Affiliate

January 28, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

I am writing to provide representative comment on General Electric's Revised Corrective Measures Study (CMS) as you consider remediation plans for the "Rest of the Housatonic River."

I feel that a low-impact solution will balance the economic needs of our residents and the environmental needs of the wildlife, while meeting the EPAs human health criteria.

An aggressive plan to dredge the river, its banks and neighboring wetlands, as was completed by GE during Phase I of the clean up, would indefinably alter, and quite possibly destroy, the Housatonic River, which has for hundreds of years served as a vital part of Berkshire County's natural beauty and economic legacy.

As an active member of our business community, I ask that the EPA take a cautious approach to the very sensitive and important matter of PCB removal. I strongly urge you to approve a low-impact solution, which would have the least impact on the economic and environmental needs of the Berkshires, while protecting the natural beauty and ecology of the Housatonic River in both the near and long terms.

Thank you for your consideration as you plan for the clean up of the rest of the river.

Sincerely,

James Herrick, Jr.
Vice President, Personal Lines

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NATHANIEL W. KARNS, A.I.C.P.
Executive Director

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NOV 29 2010
By

November 26, 2010

Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

RE: General Electric Company's Revised Corrective Measures Study (CMS) Report for the Housatonic River Site, Rest of River

Dear Ms. Svirksy:

The Berkshire Regional Planning Commission is extremely interested in and concerned about the Corrective Measures Study for the Housatonic River Site. It does not appear that there are any good options, just a series of bad ones. We can destroy the river and its ecosystem for some number of years in order to remove the PCBs or we can live with a considerable amount of PCBs and the resulting environmental damage for at least several generations' lifetimes. GE's report seems to lean towards the latter but also entails a considerable amount of destruction of the existing river. Given this incredibly complex and difficult set of trade-offs, we believe it is premature for EPA to approve any corrective measures.

We believe that a considerable amount of public education and dialogue is needed, at a very local level, before EPA moves forward. We realize that a few advocacy groups have been trying to do this for years but we do not believe that there yet is any community consensus on the best way to proceed. This was very apparent at the Massachusetts Secretary of Energy & Environmental Affair's recent forum in Lenox. Various parties who have been very involved in this topic voiced opinions but even many of them, such as the spokesperson for the Berkshire County League of Sportsmen, indicated they really could not determine what was the most appropriate path forward.

We also believe that there are substantial questions regarding the impact on the economy and public health and perceptions regarding the Berkshires from the outcomes of EPA's decisions. It seems apparent that both the stigma of having significant amounts of contamination in one of our major environmental features, the Housatonic River, and the impact of proposals for dredging and disposing of contaminates at valuable sites along the river and in proximity to neighborhoods and businesses can have serious and ongoing economic ramifications for this region, which has been struggling economically since 1970. Similarly, leaving significant amounts of contamination or major removals which destroy significant environmental features and a primary natural resource may create a perception about the region which will affect residents and potential visitors. Both removal and leaving the contamination in place also have public health ramifications. We are unaware of any analysis which has been done in these regards and they must be part of the decision-making process.

It is the recommendation of the Berkshire Regional Planning Commission, representing all 32 cities and towns in Berkshire County, that non-advocacy, non-regulatory parties be empowered and given adequate resources to accomplish the following occur prior to EPA reaching any decision on how best to proceed:

1. Develop educational materials which are comprehendible to citizens and property owners on the state of the science on removal options and on the serious tradeoffs of various options;
2. Research and document the economic and perceptual impacts of any similar situations in the U.S. – whether significant contaminants were removed or kept in place, what were the economic, public health and community impact of those actions?;

3. Assemble, review and document the community planning documents which exist for the communities along the river and provide a comprehensive analysis of what the communities have determined are appropriate uses and their visions for areas along the river through those official plans;
4. Hold a number of educational forums in the affected communities, trying to reach a broad cross section of each community; other means of education – community access cable, the internet, whatever else will reach the most people possible – should also be utilized;
5. Conduct, using a professional research organization, a statistically valid survey, accompanied by educational materials, of all the property owners and residents of the communities along the river, at least in Massachusetts, to get a much more complete and accurate picture of the desires of those who are going to be most directly impacted by whatever corrective measures are undertaken.

We certainly recognize that people, the various government agencies, and GE are all anxious to reach a resolution after all these years. However, it is apparent to us that there has not yet been an adequate effort made to find the balanced wishes of what it is that a majority of people in the region feel should be done and it is our hope that EPA will determine that this is necessary in order for it to make a final decision. The potential implications of the long-term costs and implications of these decisions make it imperative that this decision not be rushed through and not be arrived at without proper education and consultation of the affected citizens and communities. As the officially recognized regional planning agency for Berkshire County, the Berkshire Regional Planning Commission is willing to work in whatever role it can to try to see that these steps are accomplished.

Sincerely,

Nathaniel W. Karns, AICP
Executive Director

Cc: The Honorable John Kerry, U.S. Senator
The Honorable Scott Brown, U.S. Senator
The Honorable John Olver, U.S. Representative
The Honorable Deval Patrick, Governor
The Honorable Benjamin Downing, State Senator
The Honorable Smitty Pignatelli, State Representative
The Honorable Christopher Speranzo, State Representative
Mr. Curt Spalding, Director, EPA New England
Mr. Ian Bowles, Secretary, Executive Office of Energy and Environmental Affairs

BRPC Comments on Housatonic River - Rest of River Rev. CMS

Lauren Gaherty To: Susan Svirsky 01/25/2011 09:45 AM

Cc: '"ken.kimmell@state.ma.us"', '"mary.griffith@state.ma.us"', '"michael.gorski@state.ma.us"', Jim Murphy, Curt Spalding, '"rep.smitty@mahouse.gov"', '"Christopher.Speranzo@mahouse.gov"', '"Benjamin.Downing@masenate.gov"', 'Nat Karns', '"Ostrander, Jason"'

Dear Ms. Svirsky-

Please find attached the Berkshire Regional Planning Commission's (BRPC's)comments regarding the *Housatonic River – Rest of River Revised Corrective Measures Study Report* (Oct. 2010). If you have any questions regarding the attached, please do not hesitate to contact me or BRPC Executive Director, Nathaniel Karns.

Thank you for the opportunity to comment.

Lauren Gaherty, Senior Planner
Berkshire Regional Planning Commission
1 Fenn St., Suite 201
Pittsfield, MA 01201
413-442-1521, ext 35 (P)
413-442-1523 (F)

BRPC Letter - GE CMS Report for Rest of River - 2011-1-24 Submitted.pdf

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NATHANIEL W. KARNS, A.I.C.P.
Executive Director

January 21, 2011

Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

RE: Housatonic River – Rest of River Revised Corrective Measures Study (CMS) Report (October 2010)
Comment Submittal #2

Dear Ms. Svirksy:

The Berkshire Regional Planning Commission (BRPC) submits these additional comments regarding the Housatonic River – Revised CMS. These comments focus on two general observations: 1) the Revised CMS is inadequate in that the GE has not adequately evaluated the full spectrum of mitigation technologies that might be used for Rest of River, and 2) we restate our belief that an extensive public informational program must be conducted to enable local residents, officials and the regulatory agencies to fully analyze the short and long-term impacts of remediation to public health, the environmental and the local economy prior to EPA proposing any specific clean-up action.

The Revised CMS is inadequate

The Revised CMS is inadequate in that it does not seriously consider employing a mix of conventional and alternative technologies. We are disappointed that the only remediation technique for floodplain soils, with the exception of FP1 (no action) include excavation, transportation and/or storage of excavated material, and backfill of soil. Excavation has the obvious environmental impacts of long-term clearing of vegetation and destruction of existing habitat. It also comes with significant transportation and storage impacts. The only technologies considered and evaluated for remediation of river sediments and erodible banks, with the exception on SED 1 (no action) and SED 2 (MNR), are excavation or capping. All in-situ or other alternative technologies were dismissed, ostensibly because they have not been tested on "full-scale" projects as extensive as the Rest of River.

In general, when discussing alternative techniques, such as in-situ, the document focuses on what cannot be done, not on what might be done with some creative thinking. Stated often, and summarized on p. 3-18, "In situ biological, chemical, and thermal treatment processes were eliminated during initial screening because none of these technologies has been applied full scale for soils containing PCBs at a site similar to the Housatonic River floodplain ..." However, the Revised CMS further notes that for several promising technologies, further pilot and/or full-scale field tests are needed to further assess their appropriateness or effectiveness.

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We suggest a paradigm shift for remediation of the Rest of River. First, remediation plans for Rest of the River must not be static; instead plans should remain flexible enough to include new developments in technology and accommodate changes in field conditions where they are found. A strategy of active adaptive management must be accepted by all parties and employed throughout the remediation process. Second, the river is made up of several different aquatic and terrestrial ecological communities and, where applicable, promising less invasive mitigation techniques to minimize the long-term ecological effects of vegetation removal and soil excavation must be sought out and considered in a more serious manner than has been done in the Revised CMS. For example, in situ technologies could be considered for small discreet pilot sites, such as small plots of floodplain, wetlands and one or more vernal pools. Although in situ technologies may result in some ecological damage, reducing the amount of excavation may reduce the hydrologic impacts and thus improve the short and long-term success rate of wetland replication efforts. Avoiding large scale excavation to maintain vernal pool viability would reduce the rare species concerns that are such a focus of GE's *Fate of a River* video.

Remediation must consist of a combination of techniques that will remove and, if possible, destroy PCBs once and for all. Transporting and storing PCB-contaminated soils today transfers the responsibility and expense of containing or destroying PCBs to future generations and other communities.

We call upon GE and the EPA to work cooperatively with developers of emerging technologies to conduct the field tests in the Housatonic River and floodplain that are stated so often throughout the study as a need. The results of these tests may actually permanently remove and destroy PCBs in the river and floodplain with a significant decrease in the long-term ecological damage required by vegetation removal and excavation. We call upon GE to put imagination to work at this remediation site with the same vigor that it is embracing imaginative technology in other industrial sectors, such as renewable energy. This could not only benefit the Rest of River, but other PCB remediation projects around the country and world.

While all parties, including GE and the EPA, are interested in finding a final resolution to the decision about how to proceed, we believe that an active adaptive management approach is appropriate in this case. While such an approach may not provide a clear answer to the final resolution in a traditional sense, it is what makes sense in this case. The contamination occurred over four decades and it has been four decades since PCB's were banned and no longer allowed to continue to be added to the river system. A solution which is a step-by-step, gradual clean-up in a very fine-tuned, sensitive manner, even if it takes another four decades, is preferable to a solution which either leaves large amounts of PCBs in the system or destroys this ecologically valuable river system, which appear to be the options being presented to-date.

Need for public informational program

We strongly urge the GE and the EPA to facilitate a public information program that will present, in a manner that is comprehendible to citizens and property owners, the state of the science on remediation options. Decisions that residents, regulatory agencies and GE make today will affect public health and the environment for generations to come. This is a responsibility that must not be taken lightly. It is our belief, as stated in our letter of November 26, 2010, that a considerable amount of public education and dialogue is needed at the local level so that local residents and officials fully understand the various mitigation options and the long-term ramifications of each of option. As the officially recognized regional planning agency for Berkshire County, the BRPC is willing to work in whatever role it can to try to see that these steps are accomplished.

Sincerely,

Nathaniel W. Karns, AICP
Executive Director

Cc: The Honorable John Kerry, U.S. Senator
The Honorable Scott Brown, U.S. Senator
The Honorable John Olver, U.S. Representative
The Honorable Deval Patrick, Governor
The Honorable Benjamin Downing, State Senator
The Honorable Smitty Pignatelli, State Representative
The Honorable Christopher Speranzo, State Representative
Mr. Curt Spalding, Director, EPA New England
Mr. Jim Murphy, EPA Community Involvement Coordinator
Mr. Rick Sullivan, Secretary, Executive Office of Energy and Environmental Affairs
Mr. Kenneth Kimmell, Commissioner, Massachusetts Department of Environmental Protection
Ms. Mary Griffin, Commission, Massachusetts Department of Fisheries and Wildlife
Mr. Michael Gorski, Mass. DEP, Regional Director, Western Region

From: idaemon.rtpnc.epa.gov [idaemon@unixpub.epa.gov]
Sent: Monday, January 24, 2011 9:41 AM
To: howell.rose@epa.gov; Palmieri, Linda; ng.jun@epa.gov
Subject: (023094125) GE/Housatonic River: Public Comments in Response to Public Comment Period

01) (required) My Question or Comment:There must be a low impact solution. The livelyhood of the berkshires and it's businesses and residents rely on the scenic beauty of our region.

03) Name:Dara Kaufman
04) Organization:Berkshire Visitors Bureau
05) (required) State:MA

the Berkshires
BERKSHIRE VISITORS BUREAU

January 27, 2011

Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

As President of the Berkshire Visitors Bureau, I am writing to offer formal comment on General Electric's Revised Corrective Measures Study recently submitted for Phase II of the Housatonic River Clean Up. The Board of Directors of the Berkshire Visitors Bureau has voted to advocate for a low-impact solution that still meets the EPA human health standards. We believe that extensive dredging would negatively impact tourism, the Berkshire County economy and our quality of life for years to come.

The Berkshire Visitors Bureau is the official regional destination marketing organization for Berkshire County and has been in operation for 73 years. Our mission is to promote the Berkshires as a preferred year-round visitor destination. We represent 700 businesses that are directly involved in or support the tourism industry, a major contributor to the economy of the region. On an annual basis, our industry brings 2.5 million visitors to the Berkshires and supports more than 11,000 local jobs.

This portion of the River, otherwise know as the *Rest of the River*, is very different from the area addressed in Phase I, which ran primarily through an industrial district. This portion flows through a natural, forested and wetlands area filled with wildlife and recreational activities enjoyed by residents and visitors alike for hundreds of years. A radical dredging effort, similar to that undertaken by GE previously, would last 10-20 years during which time thousands of trucks and construction equipment vehicles would travel through southern Berkshire communities that rely on tourism for economic survival.

We ask that the EPA take a cautious approach to this very important matter. Thank you for the opportunity to comment on such an important decision.

Sincerely,

Lauri O. Klefos

Lauri O. Klefos
President & CEO

Berkshire Visitors Bureau • 3 Hoosac Street, Adams, MA 01220 • T 413-743-4500 • F 413-743-4560 • berkshires.org

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JAN 28 2011
By

COMMENTS ON GENERAL ELECTRIC'S OCTOBER 2010 REVISED CORRECTIVE MEASURES STUDY (CMS) FOR THE HOUSATONIC RIVER IN MASSACHUSETTS AND CONNECTICUT FROM CITIZENS FOR PCB REMOVAL

On behalf of Citizens for PCB Removal ("CPR"), a grassroots, all-volunteer citizens organization, I want to thank EPA for inviting and accepting these comments from the stakeholders and citizens of the Housatonic River Basin and Watershed in the Berkshires and beyond, thereby offering access to our government, Of the People, By the People and For the People.

Founders and members of CPR have worked on the issue of PCB contamination in the Berkshires and beyond for over fourteen years, passionately attending hundreds of meetings, presentations, discussions and demonstrations. We have accumulated and read tens of thousands of pages of documentation, taken hundreds of pages of notes and listened to numerous researchers and experts on the devastating effects of PCB exposure to humans and other living organisms, and on methods and attempts to mitigate or remediate these effects both historically implemented and potentially to be innovatively used in the future. We also are PCB-contaminated affected residential and business property owners in the Pittsfield neighborhood of Lakewood and other city locales, have suffered from reduced property values and stigma, and endured PCB cleanups ourselves. We are members of the vast community that has been devastated by the suspected health effects of PCB's including asthma, ADD/ADHD, reduced intelligence, hormone disruption, diabetes, heart disease, obesity and cancer, among a wide array of other diseases and conditions. We have observed and documented first hand the frightening concentration of cancer in our city and county with a particular concentration in the Lakewood section of Pittsfield. We have watched, helplessly, frantically, as neighbors, colleagues, dear friends and beloved family members have succumbed to various forms of this terrible disease. Several members of CPR have died from this modern plague; others battle it currently. It is on this basis of knowledge and long-term intimate stake in this process that we make these comments on the current CMS Proposal.

We all know that numerous peer-reviewed studies show that PCB contamination, at all levels, is toxic by all serious, non-biased scientific standards, including EPA's own Ecological and Human Health Risk Assessment Documents as well as other independent scientists. PCBs, all 209 congeners, are listed on EPA's website as "Probable Carcinogens", which is the second most serious category, behind only "Known Carcinogens" which is a very short list of substances proven at the molecular level to cause cancer. We have watched, over our lifetime, the average national cancer risk rise from a one in ten (1:10) general risk in the 1960s to one in eight (1:8) in the 1980s to currently one in four (1:4) for women; one in three (1:3) for men. ***At this rate, what statistical – and actual - risks will our children and grandchildren face?*** While PCBs are not the only cancer-causing factor in today's world, they do bio-accumulate in the food chain, serve no legitimate purpose in this country today, and are an unnecessary risk. We also know that Berkshire County, including this River, its watershed, and surrounding communities and neighborhoods has some of the highest levels of, and most widespread sites of known contamination of PCB's, dioxins and other industrial carcinogens and that its citizens and wildlife are at significant risk, otherwise the EPA would not have made the decision to intervene in this situation nearly two decades ago. PCBs should be, must be, actively eradicated; not left to continue their harm.

We see nothing new in this current Revised CMS that gives us hope that General Electric is serious about returning the River to the citizens of this community as a clean, viable, *safely* fishable, swimable river. In fact, we believe they took the community's comments in 2007 and 2009 and used them in this Revised CMS to exploit the fears and concerns of the citizenry in order to sway public opinion towards the 'do nothing' approach, i.e. "MNR" ("Monitored 'Natural' Recovery.") GE knows that The People, especially those who live along the corridor of the 'Rest of River' do not want any further toxic waste dumps in their community, whether unlined, such as Hill 78 or 'state-of-the-art' such as Hill 71 in Pittsfield. The riverside residents, canoeists and sportsmen and women rightly fear disruption of their homes, lives and recreational habitats by widespread draconian dredging and trucking along the Rest of River. Environmentalists, CPR among them, decry widespread indiscriminate destruction of wildlife habitat with the implementation of outdated, outmoded, dredge-and-landfill techniques.

As we have stated in previous Comments, we believe that any cleanup – or *non*-cleanup - approach that fails to fully take into account the magnitude of the Power of Mother Nature does a huge disservice to the living beings – human and otherwise - that are subject to that power. **Leaving the chemicals in the environment risks having them further spread throughout the world and food chain.** ***No landfill*, no matter how carefully designed, is *guaranteed* to withstand the extremes of weather and natural disasters that we have seen throughout history as well as in modern times, such as tornadoes, hurricanes, massive floods, rock/mud/landslides, earthquakes and even volcanic eruptions.** The October 2010 toxic deluge from a break in a chemical storage facility similar to Hill 78 into the Danube River in Europe is a frightening illustration of man's arrogance, short-sightedness and incompetence in that regard. Political unrest and possible domestic terrorism are further potential threats to any man-made structure containing poisons. As our name illustrates, we believe in the *Removal* of PCB's, not the 'ignoring' or stockpiling of them. Therefore, we *implore* the EPA to mandate the inclusion of Pilot Studies for the Rest of River with newer, cutting edge "alternate" and innovative technologies to **destroy or neutralize PCB's** in situ or with less disturbance and dredging of the natural environment including the river itself, riverbanks and floodplain in a good-faith attempt to find better, less invasive solutions to this problem that eliminates the need for storing of toxins. On January 19, 2011 we attended a presentation by *Biotech Restorations* and *Genesis Fluid Solutions*, hosted by Housatonic River Initiative (HRI) and co-sponsored by Berkshire Environmental Action Team (BEAT), Housatonic Environmental Action League (HEAL), and Housatonic Valley Association (HVA), among others in the community. At that meeting we heard promising evidence that other viable less invasive, *in situ* solutions are being developed, tested and, in fact, implemented in California, our nations 'gold standard' of environmental stringency and protection. Furthermore, we all know that this problem was not created overnight. Over many years the PCB's and other industrial toxins were dumped into the local land, river and air, and have accumulated. A problem decades in the making is not going to be solved quickly, easily nor 'cheaply.' **We strongly urge EPA to insist that this and other modern, promising and most environmentally sensitive options be actively recruited by GE and EPA, *studied via Pilot Studies in this River,* itself, carefully, deliberately and slowly; and, if successful, implem nted more fully to the Rest of River solution decision.** Lets take our time and make sure we do this right the first time. We join with HRI, BEAT, HEAL and HVA, among others, in this opinion.

Money always equates Power in this society, and those of us representing the general citizenry are all too aware of this. Many of those opposing the citizens' activists groups, including the Pittsfield business community (Chamber of Commerce) and everyone representing GE are well-compensated for their time involved in this issue. Most of the environmental activists are not compensated whatsoever for their hundreds of man-hours dedicated to this cause, members of CPR included. General Electric has put many resources into its public propaganda campaign aimed at swaying public opinion towards MNR, most notably its website "HousatonicOptions.com" and its slick multi-million dollar Hollywood-style film: "The Housatonic: The Fate of a River". At the January 19th 2011 meeting, Biotech even claimed that their method was actually *cheaper* than the conventional dredge and truck/landfill option! Chris Young, President of Biotech, also extended a Company Guarantee of success*; an unprecedented offer in the environmental remediation field!* When asked, 'Have you approached GE with this option?" Mr Young's reply was, "Yes, and their response was, 'We don't believe you; if it was possible, we would have thought of it ourselves.' " **Perhaps GE's current national mega-million dollar multi-media ad campaign, "Eco-Imagination", should be renamed "*EGO*-Imagination" for their arrogant refusal to work with the overall Environmental and Scientific communities to seek and adapt the BEST solutions currently available, and not simply the quickest, cheapest, or ones they can patent - and therefore profit from - themselves.**

It is highly ironic that those with the most money in this issue continuously spend it generously in order to avoid paying for their obligations and responsibilities to the people and environment of this ecosystem, while *those who only want to see things done well and done right for all have nothing to gain financially.*

Citizens for PCB Removal continues to advocate for the most thorough and comprehensive cleanup of the River and surrounding environment as is technically possible, without regard to cost in terms of dollars and cents of the actual, physical remediation methods to General Electric. We know there is an *immeasurable* cost in terms of human health and safety, human *suffering*, and environmental health and safety, in addition to recreation and enjoyment of the River, especially when one factors in these impacts on multiple generations to come - both human and otherwise. While we prefer and plead for a more creative, innovative approach than dredging, we do not want discussion of dredging, or its *very limited* use to completely shut down the cleanup process. We joined in supporting the ACEC designation of the River to *enhance the cleanup process*, not to stop it cold. *We strongly and completely oppose all forms of in situ "caps" and the creation of any more toxic dumps, landfills or any other term one would use for the stockpiling of yesterday's poisons to become the burden of our children and grandchildren*, as is so sadly illustrated with the uncontrolled release of the massive red toxic deluge into the Danube River in Europe, October 2010. We seek better solutions for addressing the current toxic dumps and capped contaminants as created by this cleanup so far. It is all too apparent that GE modeled its current CMS proposal to specifically and pointedly target the fears and concerns of the citizens in regards to irreversible environmental destruction, inconvenient lifestyle disruption and additional local poisonous landfills, even when there are more viable approaches readily available, in order to manipulate public opinion towards a Do Nothing approach, just so they can spend less money in today's dollars. Recent comments (October 2010) by former Massachusetts State Secretary of the Executive Office of Energy and Environmental Affairs (EEA), Mr. Ian A. Bowles, that any 'savings' in a [less than full] cleanup will still be 'invested' in Berkshire County gives us no comfort. NO monetary amount, in today's currency, can compensate for the long term damages to the health, safety and viability of future generations of all living creatures that a cheap, ineffective and incomplete cleanup today will inflict. We have <u>one</u> chance to bind GE to a thoughtful, thorough, hopefully 'permanent' **solution**; lets take our time, get it done, and do it right. To do any less is short sighted and selfish.

Sincerely and Respectfully,
Barbara Cianfarini
Co-Founder and Acting Executive Director
Housatonic River Citizens' Coordinating Counsel Representative (for)
Citizens for PCB Removal
Representing:
Charles Cianfarini, Thelma Barzottini, Dave Gibbs, Gail Gibbs; Executive Committee

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FEB 04 2011
By

Coakley
Pierpan
Dolan &
Collins

A MountainOne Financial Partner

January 30, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

I am writing to provide representative comment on General Electric's Revised Corrective Measures Study (CMS) as you consider remediation plans for the "Rest of the Housatonic River."

The decision as to what to do with the *Rest of the River* is certainly a complicated and difficult matter; one that is best resolved with a commonsense solution that carefully considers the needs of the communities affected and the resulting health and well-being of all that flourish from this important natural resource.

It is my organization's opinion that a low-impact solution will balance the economic needs of our residents and the environmental needs of the wildlife, while meeting the EPAs human health criteria.

An aggressive plan to dredge the river, its banks and neighboring wetlands, as was completed by GE during Phase I of the clean up, would indefinably alter, and quite possibly destroy, the Housatonic River, which has for hundreds of years served as a vital part of Berkshire County's natural beauty and economic legacy.

We know that even the highest historic levels of PCB contamination have not destroyed or degraded the ecology of the *Rest of the River*. PCBs have been present for more than 70 years and yet wildlife continues to thrive without remediation. No matter the extent of remediation undertaken, fish consumption advisories would remain in place indefinitely.

As an active member of our business community, I ask that the EPA take a measured, commonsense approach to the very sensitive and important matter of PCB removal. I strongly urge you to approve a low-impact solution, which would have the least impact on the economic and environmental needs of the Berkshires, while protecting the natural beauty and ecology of the Housatonic River in both the near and long terms.

Thank you for the opportunity to comment on such an important decision. I make myself available to work with the EPA to assist in your efforts to balance our community's needs with an environmentally and economically sensitive solution to clean up the *Rest of the River*.

Sincerely,

Linda A. Pebles CISR CPIW CRIS

Account Executive

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FEB 02 2011
By

Coakley, Pierpan, Dolan & Collins Insurance Agency, Inc.
www.cpdcinsurance.com

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North Adams, MA 01247
413-664-9366
800-447-2723 (413 area)
Fax 413-664-4723

296 Main Street
Williamstown, MA 01267
413-458-8119
800-447-2723 (413 area)
Fax 413-458-5706

1 Berkshire Square, Suite 107
Adams, MA 01220
413-743-7000
800-447-2723 (413 area)
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141 North Street
Pittsfield, MA 01201
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COHEN | KINNE | VALICENTI | COOK

C. Jeffrey Cook
Admitted in MA and NY

jcook@cohenkinne.com
Direct phone 413 553 0404

January 27, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Susan:

As you know, I have been a member of the CCC from its inception. I have not regularly attended meetings in recent years, because I am very frustrated by the tone and lack of balance in the process that is dominated by HRI and its subsidiaries, who do not represent a cross-section of the community.

I am writing to offer formal comment on General Electric's Revised Corrective Measures Study (CMS) recently submitted for Phase II of the Housatonic River Clean Up.

I am strongly opposed to the dredging of the Rest of the River; I do not think any sensible interpretation of the data on human health risks can justify the destruction of this portion of the River that flows through a natural, forested and wetlands area filled with wildlife and recreational activities enjoyed by residents and visitors alike for years. I have canoed and kayaked on that portion of the River with friends and family for over 40 years. Having seen the operations involved in the first 1.5 miles, I shudder at the damage that dredging operations will cause to this gorgeous part of the river that meanders through remote, wonderful wildlife areas.

I am concerned that the constant barrage of criticism the EPA has been subjected to by the CCC process has given you and your colleagues the mistaken view that the regular participants in the CCC represent the general community who would go along with HRI's position on extensive dredging. They do not.

The Pittsfield residents in my neighborhood (the old Polo Acres) and across the River are just beginning to understand what dredging this portion of the River will mean in terms of the impact of access roads, use of neighborhood roads and the creation of staging areas and dewatering facilities will do to their neighborhoods, not to mention the viewscape. You should expect growing resistance from those residents.

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JAN 31 2011
By

COHEN KINNE VALICENTI COOK LLP *Attorneys*
28 North Street 3rd Floor Pittsfield, MA 01201 Phone 413 443 9399 Fax 413 442 9399
47 Railroad Street 2nd Floor Great Barrington, MA 01230 Phone 413 528 9399 Fax 413 644 9399
www.cohenkinne.com

A radical dredging effort, similar to that undertaken by GE previously, would last 10-20 years during which time thousands of trucks and construction equipment vehicles would travel through residential areas which will be destructive of the quality of life of our residents for too long a period.

I am really hoping that some common sense and balance will be inserted into this process.

Respectfully,

C. Jeffrey Cook

#21167

Concerned Citizens of Lee

Wednesday, December 15, 2010

Concerned Citizens of Lee
Post Office Box 404
Lee MA 01238

To:
Susan Svirsky
Environmental Protection Agency
Regarding:
GE and Proposed Clean-up of Housatonic River
in the area of Lee, Massachusetts

Dear Susan,

My name is Deidre Consolati. I am a 69-year-old native of Lee, Massachusetts. I live in the downtown, 350 feet away from the Housatonic River, where our first local homes and industries were built in the 1770s.

I spent my childhood years in a home that was situated above the river. At night the mists rose and surrounded the hills. Little did our parents or we, their six children, realize that we were inhaling substances detrimental to our health as we slept peacefully in our beds, or that the river whose banks we explored in summer and winter, whose waters we waded in or whose ice we walked upon, contained compounds later identified as PCBs.

We were a close-knit family and luckily we escaped the cancers that afflicted others in the town, cancers that, as I later came to understand, were more prevalent in our area than in other locations away from the river.

In recent years I have also come to realize that our town has been held hostage

to the Gods of Industry for centuries. In the 1800s manufacturers in Lee released the waste materials from their paper-making processes into the river by way of discharge pipes and into the air by way of smokestacks. That practice continued unabated until the 1970s when the EPA regulated pollutants for the first time in local industrial history.

However, General Electric's discharge of PCBs from their Pittsfield plant found their way down to Lee and other towns, where those toxins remain to this day. As have I, my son has explored the riverbanks of the Housatonic. He became a fly fisherman. It is his passion. Today he is 31 and I, always a mother, still worry that the fish he handles or the waders (sometimes leaking) that he wears are exposing him to toxics that accumulate in his body. I also understand that once PCBs enter a person's system they remain there forever. It is a chilling thought.

I want the most effective removal of PCBs that money can buy. I want a clean-up that remains open-ended in case new technologies are discovered as the process moves along. And I do not want, above all, a clean-up that buries the toxins in local dumps that would expose future generations to their dangers.

Those who have suffered deserve the best, whatever it takes. I intend to stand strong in this regard. Please know that our organization, Concerned Citizens of Lee, was created 20 years ago expressly to resist corporate visions that would endanger the lives of families in the town of Lee and diminish our collective future. During these years we have launched significant campaigns and won meaningful victories on behalf of the public good.

Our members are united in searching for a cleanup that will deliver this stellar natural asset, the lovely Housatonic River, back into the hands of Lee families where it belongs.

Deidre Consolati
Chair
Concerned Citizens of Lee

deidreconsolati@aol.com
Concerned Citizens of Lee
Post Office Box 404
Lee Massachusetts 01238
Phone: 413 243-2318 or -2186

Country Curtains®

William H. Booth
Chief Executive Officer

January 31, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms.Svirsky:

I am writing to offer formal comment on General Electric's Revised Corrective Measures Study (CMS) recently submitted for Phase II of the Housatonic River Clean Up.

I am doing so on behalf of Country Curtains, whose corporate headquarters is located on Pleasant Street in Lee, on a 150 acre parcel of open land that is bisected by the River. We also have a manufacturing facility housed in a historic textile mill in Housatonic that is sited on the banks of the River. Our owners, the Fitzpatrick family, are ardent stewards of environmental and historic preservation.

I strongly urge you to consider a low-impact clean up solution, which will be sensitive to the environmental repercussions associated with the aggressive dredging, such as that done during Phase I of the clean-up, while addressing the goal of meeting human health standards. This portion of the River, otherwise know as the *Rest of the River*, is very different from the area treated in Phase I, which ran primarily through an industrial district. This portion flows through a natural, forested and wetlands area filled with wildlife and recreational activities enjoyed by residents and visitors alike. Ironically, the Housatonic River, and its environs, has just lately experienced resurgence in its use as an eco-tourist attraction, giving breath to new related business ventures while increasing the business of established hospitality venues.

A radical dredging effort, similar to that undertaken by GE previously, could last decades, causing a disruption of traffic flow impacting residential communities and southern Berkshire towns that rely on tourism for economic survival. This major effort would also require invasive intrusion into and extensive damage to forests and riparian areas currently protected by state environmental law. We at Country Curtains believe that a low-impact solution will balance the economic needs of our residents and the environmental needs of the natural resources and wildlife, while meeting the EPAs human health criteria. Anything more would cause widespread, long-term and, in some cases, permanent damage.

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FEB 02 2011
By

STOCKBRIDGE, MASSACHUSETTS 01262-0955 TELEPHONE (413) 243-1474 FAX (413) 243-0616

Speaking for our company, which is a highly regarded business and community leader in Berkshire County, I ask that the EPA take a cautious approach to this very important matter of PCB removal. I strongly urge you to approve a method that would have the least negative impact on the Berkshire County economy and environment.

Thank you for the opportunity to comment on such an important decision. I look forward to finding a solution to clean up the *Rest of the River* that balances the needs of our community with that of meeting human health standards as determined by the EPA.

Sincerely,

William H. Booth

William H. Booth
Chief Executive Officer

lmc

cc: Representative Christopher N. Speranzo
Representative William "Smitty" Pignatelli
Senator Benjamin B. Downing
Congressman John Olver
Senator John Kerry
Senator Scott Brown
Michael P. Daly

CRANE & CO.
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January 26, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

I am writing to provide comment on General Electric's Revised Corrective Measures Study (CMS) as you consider remediation plans for the "Rest of the Housatonic River."

As CEO of Crane & Co., Inc., I am reminded that our company was founded in 1801 on the banks of the Housatonic because the river was a source of energy and extremely important to our manufacturing process. It still is a part of our legacy and an important source of recreational activities for many of our employees.

Crane & Co., Inc. believes that a low-impact solution that does not include dredging will balance the economic needs of our residents and the environmental needs of the wildlife, while meeting the EPAs human health criteria.

An aggressive plan to dredge the river, its banks and neighboring wetlands, as was completed by GE during Phase I of the clean up, would indefinably alter, and quite possibly destroy, the Housatonic River, which has for hundreds of years served as a vital part of Berkshire County's natural beauty and economic legacy.

I strongly urge you to approve a low-impact solution, which would have the least impact on the economic and environmental needs of the Berkshires, while protecting the natural beauty and ecology of the Housatonic River in both the near and long terms.

Sincerely,

Charles J. Kittredge
Chairman & CEO
Crane & Co., Inc.

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JAN 31 2011
By

DALTON, MA 01226

TELEPHONE 413-684-2600 FACSIMILE 413-684-0726

CRANWELL
RESORT ♦ SPA ♦ GOLF CLUB

December 17, 2010

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky,

On October 12th, General Electric submitted the Revised Corrected Measures Study for the rest of the Housatonic River to the EPA for review. As a resident of Lenox, I urge you to take the course of Monitored Natural Recovery. Over the past years, we have seen less and less PCB's in the River. Any disruption to the riverbed and riverbanks will churn up PCB's and will have a significant negative impact on the river itself as well as on the plants and animals along its banks. And without a doubt the people who live along the River and in the nearby communities will face all the negative impacts that digging up the River will cause.

Please do not force GE to take actions that will destroy our river.

Sincerely,

Lewis M. Kiesler
President and General Manager

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DEC 23 2010
By

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NATIONAL TRUST FOR HISTORIC PRESERVATION®

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January 27, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky,

I am writing to offer my comments on behalf of Cranwell Resort, Spa and Golf Club regarding General Electric's Revised Corrective Measures Study (CMS) recently submitted for Phase II of the Housatonic River Clean Up.

We ask that you consider taking a different approach to the extensive dredging of the Housatonic River in Phase II as opposed to the dredging performed in a more industrial area from Phase I. Perhaps a low-impact clean up solution is a better solution going into a more tourist and residential area as Southern Berkshire County. The area runs through natural, forested and wetlands area filled with wildlife and recreation for local residents and visitors. Our guests and their families have long been coming to the Berkshires to enjoy the beautiful lands and take part in hiking, swimming, and viewing the wildlife in this quiet, relaxing environment. Any extensive, long-term dredging in this area along with equipment, trucks, the building of staging areas and dewatering facilities and other disturbing machinery used, could have a lasting negative effect on tourism that we at Cranwell and the residents, have come to rely on to keep our local economy thriving.

As a business leader and citizen I ask that the EPA take an extremely cautious approach to this matter of PCB removal. I strongly urge you to approve a method that would impact the county's economy and wildlife as little as possible while meeting the EPA's human health criteria.

Thank you for the opportunity to comment on such an important decision. I look forward to finding a solution to clean up the *Rest of the River* that balances the needs of our community.

Sincerely,

Lewis M. Kiesler
President and General Manager

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JAN 31 2011
By

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www.cranwell.com • info@cranwell.com

SLH
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Comments
on
Housatonic River Corrective Measures Study
Submitted to EPA by GE Corporation
October 2010

prepared by
ESC, LLC
Dr. Peter L. deFur
Henrico, VA
January 19, 2011
On behalf of
Housatonic River Initiative

Document Summary

This Corrective Measures Study (CMS) is a revised and changed draft of the CMS submitted by GE to EPA in 2008. The CMS presents options and alternatives for cleaning up the PCBs and other chemical contaminants in the Housatonic River that were released by GE from the Pittsfield plant for more than 70 years. The current CMS was prepared with input from EPA in terms of assumptions and conditions.

The CMS presents cleanup options in three categories: 1) the river sediments; 2) the floodplain/riverbank areas and; 3) treatment or disposal of sediments removed from the river. These various specific options are combined to give a series of complete options addressing contamination in the river and floodplain and addressing how to handle the contaminated sediments. The combinations are limited to fit a pre-determined range of options that range from no removal (no action) to partial removal and finally, removal of a larger volume of contamination. Removing less sediment from the river is combined with removing less soil in the floodplain and applying comparable criteria to focus on the more contaminated locations for removal. One option provides for minimizing the physical disturbance of the river, riverbed and riverbank with the idea of reducing the physical disturbance to the river during remediation.

The CMS presents, but does not select, several possible ways to handle the contaminated sediments and soils after removal. The CMS discusses some options that were not selected for further consideration:

- A confined disposal facility (CDF) in water in an unspecified location
- Sediment/soil washing of dredged sediment
- Thermal desorption of dredged sediment

The CMS does not consider various other options for treating contaminated soils/sediments, including:

- In place treatment of PCB

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- In place isolation, including activated carbon
- Other processes for removing PCBs from contaminated sediments in addition to Biogenesis soil washing

Generally, the alternatives rely to a great extent on sediment removal "in the wet" and use more mechanical dredging than hydraulic dredging. Hydraulic dredging tends to be generally less damaging when conducted properly. More hydraulic dredging and use of smaller pieces of equipment (e.g. hand-held) will reduce the footprint of the remediation activities. The disadvantage to GE and the remediation in using smaller pieces of equipment is that the process tends to take longer and progress slower because of a lower rate of sediment removal.

The CMS is supposed to satisfy the legal and regulatory conditions set out in CERCLA that are included in the Consent Decree. One of these requirements is to meet applicable or relevant and appropriate requirements (ARARs). One such ARAR is the water quality standard for PCBs. The CMS observes that this ARAR will not be met under several options and that EPA will need to grant a waiver based on the impracticality of meeting the water quality standard for PCBs.

In the end, GE presents an option that is supposed to satisfy EPA requirements but which GE does not agree to implement because of their continued denial of scientific facts about PCB toxicity and EPA requirements and assumptions.

General Comments

- The Executive Summary sets the tone for the entire document by presenting arguments about why GE should not undertake any further actions to actively clean up the PCBs and other chemicals that GE has released for more than 70 years into the Housatonic. The style and tone are more like that of an opinion piece rather than a technical document, and the tone is one of denial that there is a problem or that GE should clean up the river. GE continues to assert that PCB toxicity is not a problem.

- 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 flies in the face of scientific evidence and ignores the independent scientific research, citing instead the work of their own scientists or scientists funded by GE. The international scientific community long ago recognized the dangers and toxicity of PCBs;GE's continued denial simply undermines the credibility and scientific veracity of the CMS.

- The waiver criteria and process need to be explained in the CMS much more effectively. In several places, the CMS notes that ARARs will not be achieved because it is too difficult or that, due to GE's continued insistence that PCBs are not toxic, the PCBs do not need to be removed. If EPA allows a cleanup remedy

that still presents conditions not meeting standards, and cleaning up the contamination is simply not practical, then EPA can determine that full cleanup is "impractical" and seek a waiver. This outcome is referred to as an "impracticality waiver" and needs thorough coverage in the CMS.

- The CMS does nothing to address PCB levels in the Connecticut portion of the river. The CMS simply indicates that time will heal this contamination wound by covering or washing the PCBs. The formal term for not taking any active measurements is "natural recovery" and if the plan calls for taking samples to measure improvements, then the process is called "monitored natural recovery." As proof that MNR is an effective remediation technique, the CMS points to decreases in PCB levels in Connecticut fish.

- The CMS presents the cleanup options and information on the general framework for a cleanup plan as set out in CERCLA.

- The CMS seems to be written as a document intended to support a legal challenge by GE to any EPA decision for further cleanup action.

- Section 2 contains a great deal of language about why GE does not have to comply with EPA directives. Section 2 also states GE's position that the river does not need to have PCBs removed. GE ignores or discounts PCB toxicology and the growing literature on the impacts of PCB contaminated sites on the surrounding human and ecological populations.

- The selection of alternatives is based on a series of criteria that were approved by EPA. One of these criteria is to meet IMPGs for sediment. EPA agreed with GE that there is no need to set or achieve IMPGs for either surface water or air. The problem with this decision and approach is that the air pathway will not be addressed nor included as a quantitative factor in the cleanup.

- The air pathway has been discounted for this site and other PCB contaminated sites, in spite of evidence that indicate the significance of the atmospheric transport pathway. The section on PCB toxicity and health below provides literature citations that indicate proximity to PCB contaminated sites is associated with increased health effects and greater risk for several diseases.

- The CMS does make some attempt to discuss what may occur during flooding by including extreme weather events from the past (section 3.2.2.1, March 1936 and August 1990). This effort, seemingly included at EPA's direction, begins to account for flood events, but does not completely address the likely consequences of sustained higher rainfall, flood, and drought sequences that are possible or probable in the future.

- The CMS states that PCB levels are decreasing as proof that MNR will work to clean the river. In the same explanation, GE indicates that inputs of PCBs to the river are being reduced by actions taken in Pittsfield. This explanation is neither satisfactory nor entirely correct. Unless GE intends to completely eliminate all PCB inputs to the Housatonic River from storm water, leaching, and site sources (which should be done), then the Pittsfield plant will continue PCB inputs to the river for the foreseeable future.

- Other PCB remediation techniques should be considered. Other, more applicable techniques, may include activated carbon treatment and streambank restoration efforts. Activated carbon and streambank restoration are discussed later.

PCB toxicity

GE erroneously sites reductions in PCB levels in the water column as evidence of successful remediation; it is well understood, though, that measuring PCB levels in sediment is a more appropriate measure. PCBs do not remain within the water column but adhere to sediments, indicating that a water-based measurement of PCBs would be misleading to the actual volume of PCBs present in the system. Also, the modeling of PCB levels only runs 52 years into the future, or just 30 years after remediation. These estimates are short-sighted and do little to promote the long-term health of the Housatonic River.

Scientists have continued to research the detrimental toxic effects caused by PCBs. In the last two years, further research has been published supporting that PCBs are hazardous to plants, fish, animals, and humans. PCBs are known to bioaccumulate within the food chain and effect gene expression, cytochrome P450 and P-glycoprotein expressions, proteins, kidney tubules, and cause embryotoxicity, cell death, oxidative stress, and more detrimental health effects. There is no evidence to support the notion that PCBs are safe and not a health threat to people or the environment. EPA has tested and demonstrated that PCBs are, at the very least, a probable carcinogen and need to be taken very seriously.

A literature search on PCB toxicology during the last two years provides an abundance of papers on the toxic effects of PCBs, the results of which are provided in Appendix B.

Natural Recovery and Monitored Natural Recovery

There is no evidence in the literature or in government reports that natural recovery is a highly effective, long term means of cleaning up PCBs in a fast flowing cold-water river such as the Housatonic River. In addition, the CMS has a number of problems, indicated here:

- The CMS lacks a site-specific description of the processes involved in the monitored natural recovery option. What natural processes does the monitored

natural recovery option rely on? What are the "naturally occurring processes" that are referenced in the MNR definition on page 1-17? Will the option affect PCB bioavailability or toxicity or both? Overall, the MNR method is unclear and obviously not fully developed.

- Misleading language, such as, "MNR would be applied," leads a reader to believe that MNR is an active option. MNR is a passive option and its success is conditional on a variety of factors such as sedimentation rate, contaminant type, soil type, types of microbes present, the amount and types of contaminants. In the case of PCBs, MNR means exclusively the sedimentation rate exceeds the rate of erosion and scour.

- MNR relies on natural capping and "transformation or removal of contaminants via contaminant weathering" (Brenner 2004). The success of natural capping, which occurs when clean sediment deposits on top of contaminated sediments, depends on the rate of clean sediment deposition in relation to the rate of sediment resuspension (Brenner 2004). River discharge and hydrology affect these factors and must be considered in a discussion of MNR as a viable option. MNR is not effective in all instances.

- The CMS states, on page 6-23, that the combination of MNR and source controls "has been demonstrated to be effective in reducing contaminant levels in sediment and biota" (GE 2010). Similar past projects are listed on the same page. The actual results of these projects are not included or cited; it is the Record of Decision, however, that is cited for these projects. It is not possible to comment on the effectiveness of a project by consulting the ROD only. A study conducted at one of the listed sites, the Sangamo-Weston/ Twelvemile Creek/Lake Hartwell Superfund Site in Pickens, SC is in non-flowing warm waters, a lake, and has no similarities with the Housatonic. At Sangamo, ten years after remediation implementation, the remedial alternative based on MNR and source control did not bring PCB concentrations in largemouth bass and hybrid bass below the FDA's fish tolerance level of 2.0mg/kg (Brenner 2004). These findings do not support the statement on page 6-23, claiming that MNR effectively reduces contaminant levels in biota.

- Commencement Bay Nearshore/Tideflats (Sitcum Waterway), WA is another site listed in the CMS as a "similar" site (GE 2010, p. 6-23). The site, however, is not actually included in the literature cited. Additionally, the literature cited is a review of Enhanced Monitored Natural Recovery (EMNR) case studies (Merrit 2009). EMNR includes additional components, such as thin-layer capping. The terms EMNR and MNR are not interchangeable.

- The CMS does note, however, that "long-term monitoring data" does not exist for these sites, and so it is not possible to make claims on the long-term effectiveness of MNR based remediation alternatives (GE 2010, p. 6-23).

- MNR will be accompanied by a set of institutional controls (GE 2010, p. 6-122). MNR may be a slow process taking "decades" (EPA 2001). How far into the future is it reasonable to expect institutional controls to remain effective?

- PCB movement in soil may occur through mechanisms of advective transport and benthic mixing. These processes may retard and/or further complicate the natural capping process on which MNR's effectiveness relies (Brenner 2004).

Other PCB Remediation Techniques
Activated Carbon

Contaminant sequestration using activated carbon amendment has been proposed as an alternative or add-on to dredging at sites contaminated with polychlorinated biphenyls (PCBs). Recently, capping materials with high chemical retention capacity have come into focus, such as active carbon and zeolite minerals, a practice commonly termed "capping with active barriers." The supposed effect of such active materials is that adsorption of contaminants to the active material will significantly reduce the contaminant transport from the capped sediment.

Activated carbon can reduce the bioavailability of hydrophobic organics such as PCBs and heavy metals present in sediments. To test the efficacy of activated carbon amendment to reduce the bioavailability of polychlorinated biphenyls (PCBs), clams (*Macoma balthica*) were exposed to different levels of field-contaminated sediment (McLeod 2007). Clams exposed to the sediment at various doses of activated carbon resulted in significant differences between their tissue PCB concentrations (Figure 1). 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 *M. balthica* by almost one order of magnitude. Furthermore, the biodynamic modeling exercise strongly suggests that this reduction is accomplished through the mass transfer of PCBs from native sediment particles to the activated carbon (McLeod 2007).

McLeod et al. (2008) compared activated carbon capping with aqueous equilibrium PCB concentration for untreated Grasse River sediment (1.03 ± 0.08 μg/L) near Massena, NY. Total PCB concentrations in pore-water, semi-permeable membrane device (SPMD), and clams versus carbon dose in Grasse River sediment are shown in Figure 2. The general trend of decreasing concentration with carbon dose observed in physicochemical tests with Grasse River sediment are similar to those reported for Hunters Point (Zimmerman et al., 2004; Zimmerman et al., 2005) and Lake Hartwell (Werner et al., 2005). Average percent reductions in aqueous equilibrium PCB concentration were 82%, 94%, and 97% for carbon dry weight doses of 0.7, 1.3, and 2.5

respectively. PCB uptake into semi-permeable membrane devices (SPMDs) from the untreated Grasse River sediment was 476 ± 61 μg/g. Average percent reductions in SPMD uptake were 54%, 83%, and 92% for carbon dry weight doses of 0.7, 1.3, and 2.5%, respectively. Consistent with results from previous studies (Zimmerman et al. 2004; Zimmerman et al. 2005; Werner et al. 2005), treatment efficacy was higher for lower-chlorinated congeners (McLeod et al.. .2007). Average percent reductions in clam tissue PCBs were 67, 86, and 95% for activated carbon doses of 0.7, 1.3, and 2.5% (dry wt), respectively (McLeod et al. 2008).

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. Activated carbon is plentiful and a 100 acre site requiring a consumption of 3 M lb of AC is less than one percent of the U.S. annual production (Ghosh 2010). Also use of activated biochars from agriculture residue can provide additional opportunities for carbon sequestration. Additional application of small increments over multiple years to incorporate into new annually deposited sediments will help ensure further efficiency for long term remediation. A comparison of remedial alternatives and cost estimates is presented in the 2008 Final FS report for Parcel F at Hunters Point Navy Shipyard (Table 1). Seven remedial alternatives were compared (Figure 3) and range from $2-30 million (ESTCP, 2008). The use of activated carbon reduces the amount of offsite disposal. Approximately 57,850 cubic yards would be treated, requiring approximately 1,610,000 lb of activated carbon. The cost of activated carbon is $1.04/lb, which is based on the quote for Calgon Carbsorb 50x200 for the Grasse River, NY, study (ESTCP, 2008).

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 of PCBs. Dredging followed by backfilling with activated carbon mixed in with clean sediment would a most effective strategy because it would remove the sediment with the highest concentrations as well as adsorb any PCBs not removed during dredging.

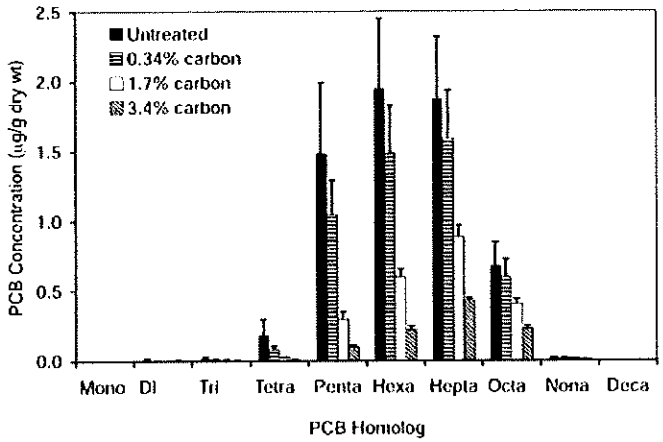

Figure 1. Clam tissue PCB homologue concentrations from clams exposed to Hunters Point (San Francisco Bay, CA) sediment amended with varying doses of activated carbon. Error bars represent one standard deviation (n=3-5 samples with 3-4 clams/sample). (McLeod 2007)

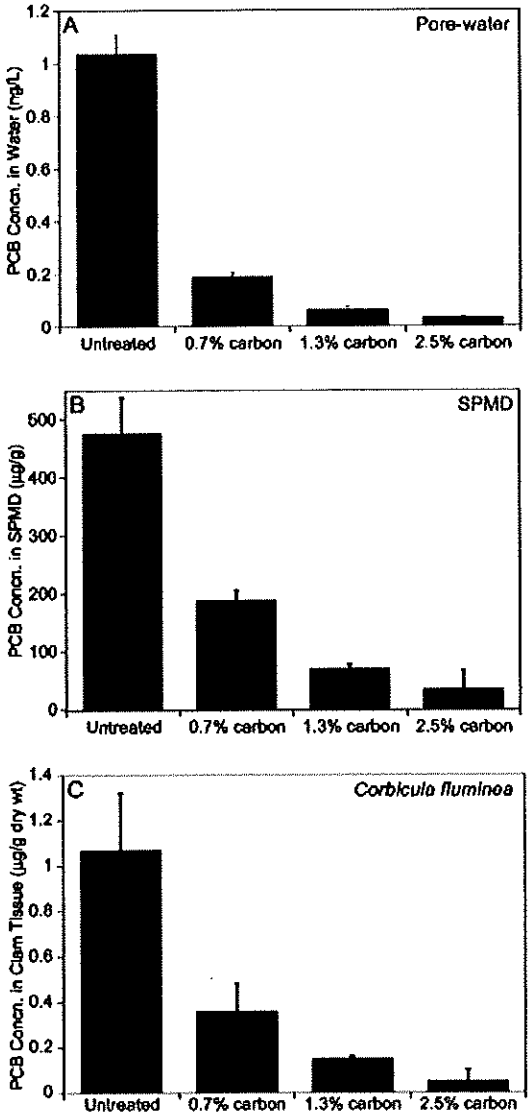

Figure 2. PCB concentrations in pore-water (A), SPMDs (B), and clams (C) in untreated and amended Grass River sediment. Error bars represent one standard deviation (n=3-5) (McLeod et al. 2008).

Cost Element	Data Tracked during the Demonstration	Costs	
Treatability study	• Detailed assessment required • Personnel required and associated labor • Materials • Analytical laboratory costs	Lab technician, 80 h	$2000
		Materials	$3000
		Analytical laboratory	$7200
Baseline characterization	• For 20 monitoring locations • Detailed field/laboratory assessments required • Field assessment costs • Analytical laboratory costs • Personnel required and associated labor • Materials	Field technician, 5*20 h Lab technician, 3*160 h Materials	$2500 $12,000 $18,000
		Analytical laboratory	$26,400
Site preparation	• No cost tracking	NA	
Activated carbon amendment	• For 700 ft^2 treatment by one of mixing options • Activated carbon • Mobilization/demobilization of AEI Aquamog • Mobilization/demobilization of CEI injector system • Personnel required and associated labor	Field technician, 5*20 h	$2500
		Materials	$3000
		Activated carbon (TOG), 350 lb / 100 ft^2	$ 7000
		AEI Aquamog Labor & rental, 2 days	$10,000
		CEI Injector Labor & rental, 2 days	$10,000
Operation and maintenance costs (periodic monitoring)	• For 20 monitoring locations • Detailed field/laboratory assessments required • Field assessment costs • Analytical laboratory costs • Personnel required and associated labor • Materials	Field technician, 5*20 h Lab technician, 3*320 h	$2500 $24,000
		Materials	$18,000
		Analytical laboratory	$26,400
		Reporting (per year)	$10,000
Decontamination and residual waste management	• Standard practice, no cost tracking	NA	
Public education program	• No cost tracking	NA	
Operation and maintenance costs	• No unique requirements recorded	NA	
Long-term monitoring	• No cost tracking	NA	

Table 1. Cost model for in situ stabilization by activated carbon mixing (ESTCP 2008).

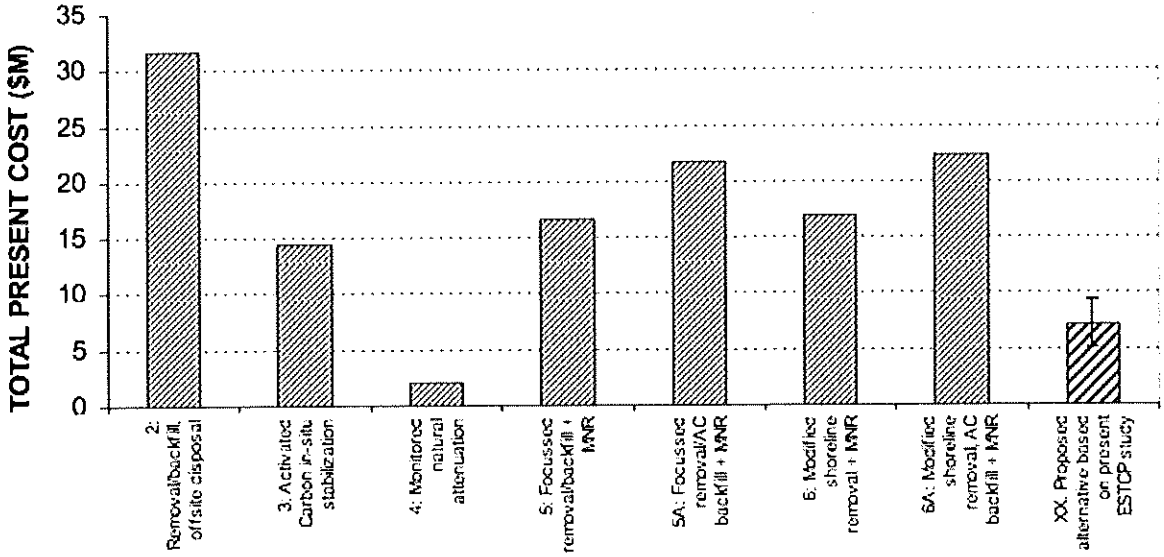

Figure 3. Present value cost comparison of different remedial alternatives for Hunters Point Navy Shipyard South Basin area (Area IX/X) (ESTCP 2008).

Stream Bank Restoration

The CMS completely discounts the restoration efforts used in the U.S. to remediate a variety of conditions, including PCB contamination.

Stream bank erosion increases the movement and deposition of sediments and, therefore, is a large source of pollution in many riverine environments (Dorava 1999). 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 (Zaimes 2006). 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 (Zaimes 2006).

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 (Dorava 1999). 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 (Dorava 1999). 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 (UIUC 2010). This method has been highly effective and widely used by the US Army Corps of Engineers (USACE 2001). 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 (UIUC 2010).

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 (UIUC 2010). Generally, bioengineered methods also provide a more natural functioning ecosystem and a more aesthetically-pleasing landscape (Sneeringer 2001). 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 2001).

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.

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Appendix A:
PCB Exposures in the Vicinity of PCB contaminated sites

Summary

Epidemiologic studies suggest an association between environmental exposure to polychlorinated biphenyl (PCBs) and higher tissue levels of PCBs in residents of the surrounding communities. PCBs are toxic chemicals classified as endocrine disruptors and known to activate the aryl hydrocarbon receptor (Ahr). The major routes of exposure to these compounds are ingestion of fish (especially sport fish caught in polluted lakes or rivers), meat and dairy products (Dellinger et al. 1996, Falk et al. 1999), and inhalation of contaminated air near hazardous waste sites (DeCaprio et al. 2005, Kouznetsova et al. 2007). Research has focused on quantifying the release, distribution and subsequent human uptake of PCBs around contaminated areas in Lake Michigan, Massachusetts, Russia, Canada, Spain, and elsewhere. Population blood samples have been measured in many areas to determine whether or not correlations exist between PCB exposures and PCB levels found in the blood or tissues. Scientific evidence indicates fetuses are most sensitive to exposure and an increased uterine exposurt to PCBs may reduce fetal and postnatal growth, psychoneurological development, and cognitive ability (Jacobson and Jacobson 1996).

Introduction

Polychlorinated biphenyls (PCBs) are a formerly used industrial chemical that is widely detected in people, wildlife, and the environment due to its persistent and bioaccumulating tendencies. It is estimated that more than 1.5 million tons of PCBs have been manufactured worldwide (Faroon et al. 2003, Pieper and Seeger 2008), where a significant amount has been released into the environment and accumulated in soils and sediments (Nogales et al. 1999, Sericano et al. 1995, Pieper and Seeger 2008). Between 1930 and 1979, over 600 million kilograms of PCBs were used in North America alone (Laukers 1986), 15% of which entered the environment through legal and illegal use and disposal (Cookson Jr. 1995) and accidental releases (Erickson 1997).

Polychlorinated biphenyls (PCBs) are a class of compounds which have been used since 1929 for various industrial and commercial purposes such as dielectric, heat transfer, hydraulic fluids, plasticizers and fire retardants. Although adverse health effects were first recorded in the 1930s (Drinker et al. 1937), PCBs continued to be used for decades. More recently, PCBs have been shown to cause cancer (Mayes et al. 1998) and a number of serious effects on the immune, reproductive, nervous and endocrine system (Aoki 2001, ATSDR 2000, Faroon et al. 2001, Pieper and Seeger 2008). Presently about 750 thousand tons of PCBs are still used, mainly in closed systems; approximately the same

amount is present in the biosphere (Abraham et al. 2002, De et al. 2006, Vasilyeva and Strijakova 2007).

Despite longstanding prohibitions on their manufacture and use, PCBs are still pervasive in environmental media, wildlife, food, and humans. PCB production in many countries has been banned and PCB application has been drastically restricted. Presently, these PCB compounds are considered among the most hazardous pollutants in the world (Borja et al. 2005, Ross 2004, Vasilyeva and Strijakova 2007). The concern about environmental pollution with persistent organic pollutants is increasing due to the compounds' toxicity, bioaccumulation, extensive distribution, recalcitrance, and lipophilicity, or their ability to dissolve in animal fat or lipid tissue.

The largest amount of PCBs in the environment is localized in soil and in water sediments close to the places of their former production and application (Fedorov 1993, Mackova et al. 2006). Although PCBs have been linked to a number of human and ecological health problems, performing a cleanup is expensive. According to calculations performed by the US Environmental Protection Agency (US EPA 2009), elimination of 525 million tons of PCB-containing waste requires about 400 billion dollars (Vasilyeva and Strijakova 2007). The expense of such a cleanup undoubtedly influences PCB remediation efforts, although PCB toxicity persists.

Exposure of the general population to PCBs is evident from data on body accumulation of non-occupationally exposed populations. People are exposed to PCBs via four pathways: inhalation, ingestion of food or fluids, absorption through the skin and fetal/lactational exposure (CDC). Some exposures can be controlled, such as coming into contact with contaminated soil and consumption of fish, crops, dairy, and meat. Other routes of exposure, including breathing contaminated air, and in utero exposure, are more difficult to limit. It is important for people living near PCB contaminated sites to take precautionary measures to protect themselves from exposures to contaminated air, water, and soil. After accounting for controllable exposure pathways, it is imperative to determine the amount of exposure that remains. Investigations indicate that living in the vicinity of a PCB-contaminated site or known source is associated with higher tissue levels of PCBs.

Human samples such as serum/plasma, human milk, adipose tissue, and breast milk have been used as biomarkers to assess the extent of human exposure to lipophilic contaminants, such as PBDEs, PCDD/Fs, and PCBs. ATSDR (2010) says that the average adult has between 0.9 and 1.5 parts per billion (ppb) in our blood. Research indicates that more is worse, but that even the level now commonly found in the average person increases risk of disease. In the end, there is no "safe" level of PCBs. This is why it is so important to reduce PCB exposure to the greatest degree possible without excessive disruption of life style.

Community Exposures

Several investigations in recent years have examined PCB levels in communities in the immediate vicinity of PCB sources, including St. Lawrence River in New York, Ontario, and Quebec, Chapaevsk, Russia, New Bedford Harbor, Massachusetts, Korea and Catalonia, Spain. Residents of communities located near PCB contaminated sites show higher PCB levels in their tissues.

Fitzgerald et al. (2007) addressed the question of how fish consumption, occupation, and outdoor air affected serum PCB concentrations and congener patterns among 139 Native American men (Mohawks) living near three hazardous waste sites. Akwesasne is a Native American community of more than 10,000 persons located along the St. Lawrence River in New York, Ontario, and Quebec. Less than 100 feet to the west of Akwesasne is the General Motors Central Foundry Division Superfund hazardous waste site. Serum total PCBs was 4.9 ppb (wet weight), in the 139 Akwesasne men. 13% of the subjects had a concentration above 10.0 ppb, and the maximum concentration was 31.7 ppb. In comparison, the National Health and Nutrition Examination Survey (NHANES), conducted by the Center of Disease Control and Prevention (CDC), found the average PCB concentration in blood serum for the United States in 1999-2000 to be 2.7 ppb. Serum total PCB concentrations of the Akwesasne increased with age ($P<0.001$) and cumulative lifetime exposure to total PCBs from local fish consumption ($P=0.011$). Exposure estimates included fish consumption as part of total dietary intake; however, cumulative lifetime exposure to PCBs from local fish consumption was strongly correlated with intake alone ($r=0.94$), suggesting that intake was the primary factor driving the accumulation. These results indicate that there is a correlation between PCB exposure through fish consumption and elevated serum PCB levels in humans.

In another study, Burns et al. (2009) investigated predictors of serum PCB concentrations of 8 to 9 year old boys living in the vicinity of a chemical manufacturing factory in Chapaevsk, Russia. Increasing age, longer breast feeding duration, closer location to the factory, and eating locally grown foods were associated with significantly higher serum PCBs (Table 1). Boys' whose mothers once worked at the factory were more likely to have higher serum PCBs as well. Boys who were breast fed for 26 weeks had a 28% greater serum Toxic Equivalents (TEQ) of dioxins and dioxin-like PCBs compared with boys who were not breast fed. Most importantly, there was a strong negative correlation between distance from residences to the factory and serum PCB concentration of the boys. Lowest PCB levels were reported for boys living furthest from the factory. Boys who lived less than 2 km from the workshop had adjusted mean serum 2005 TEQs of 30.6 (95% CI, 26.8-35.0) compared to those lived 2-5 km (adjusted mean=22.2; 95% CI, 20.7-23.8) and greater than 5 km (adjusted mean serum= 18.8; 95% CI, 17.2-20.6). Boys within 2 km had PCB serum levels 63% higher than boys who grew up greater than 5 km from the factory.

The study suggests that industrial contamination of the local environment may be an important source of exposure for the Chapaevsk boys. Boys who lived closest to the plant had significantly higher serum dioxin and PCB concentrations. The environmental (soil, house dust) and human (breast milk, serum) samples were also higher for in areas closer to the plant (Sergeyev et al. 2007, 2008). The finding of high serum PCBs was unexpected because PCBs were not manufactured but may have been used at the Khimprom plant. The summary measures based predominantly on PCBs were also higher among boys who had lived longer in Chapaevsk, even after adjustment for age, suggesting that the local environment and foods of Chapaevsk were an important source of PCB exposure.

Mothers with gardens had sons with higher serum dioxin and PCB levels, even after adjustment for local food consumption (Burns et al. 2009). This could be due to mothers being further exposed in the gardens through inhalation and dermal contact and then transferred the PCBs through breast feeding. The higher PCB levels could also be caused by the boys playing in and around the garden area and further getting exposed through contact of contaminated soil, inhaling kicked up dust, and ingestion caused by not washing hands. Dietary consumption of local eggs, meats, poultry, dairy, and fish were also significantly associated with higher serum dioxins and PCBs among the Chapaevsk boys (Burnes et al. 2009). In a similar study, elevated blood dioxin and PCB concentrations have been linked to local food consumption in areas with environmental exposures to these compounds (Choi et al. 2006). Research in Chapaevsk suggests that local eggs and fish have significantly higher concentrations of dioxins and PCBs compared to other regions in Russia (Sergeyev et al. 2007, Shelepchikov et al. 2006).

Choi (2006) measured serum PCB levels in 720 newborns living around New Bedford Harbor, Massachusetts from 1993 to 1998. New Bedford Harbor is a Superfund site with PCB contaminated sediment. Dredging to remove PCB contaminated sediment in the harbor took place during 1994 and 1995. There was a substantial decrease in newborn PCB serum levels after dredging; there was an increase of PCBs, however, in serum levels during the two years of dredging due to disturbance in the sediment increasing volatilization (Figure 1). Maternal age and birthplace were the strongest predictors of the total PCB levels in the newborns. Consumption of meat and local dairy by the mothers were associated with higher PCB levels in newborns. No association was found between total PCB levels and residential distance from the Superfund site (Choi 2006); however, there is a decrease in PCB levels the further the residents were from the hot spots. In this case, inhalation exposure did not have a strong effect on PCB accumulation; instead diet was the main source, according to the authors. It is important, however, to realize that children born before or during dredging had higher cord serum PCB levels than children born after dredging.

These results suggest that differences in PCB availability affect exposure risks potentially associated with the site.

In a second study in the New Bedford Harbor, indoor air concentrations of PCBs were measured in 34 homes near the harbor. The study was conducted during the dredging of contaminated river sediments between April 1994 and April 1995. PCB levels in indoor air samples ranged from 7.9 to 61 ng/m^3 in homes closest to the dredging operation compared to more distant houses which had levels ranging from 5.2 to 51 ng/m^3 (Vorhees et al. 1997, ATSDR 2000). These indoor concentrations, however, exceeded outdoor concentrations by an average of 32 fold, indicating the importance of indoor air concentrations to human exposures.

Decastro et al. evaluated the estrogenicity of PCBs present in the environmental media and human tissue and assessed exposure pathways for air, soil, and dust from New Bedford, MA. The assessment of PCB-derived estrogenic potency indicate that both solid and vapor phase environmental media are potential sources. Of the three media, air (inhalation) had the highest PCB-derived estradiol-equivalent exposure by at least one order of magnitude. Estimated total vapor-phase exposure to estradiol-equivalents was 1.86×10^{-6} (indoor air) and 6.30×10^{-6} (outdoor air) nmol E2EQ/day-kg, while exposure from yard soil was 1.38×10^{-7} nmol E2EQ/day-kg, and that from house dust was 6.02×10^{-8} nmol E2EQ/day-kg. PCBs 17 and 18 contributed over 80% of estradiol-equivalent exposure in air samples. Over 60% of the estradiol-equivalents in yard soil was attributable to PCBs 18, 99, and PCB110. PCBs 17, 18, 44, 49, and 110 together contributed more than 75% of total estradiol-equivalents in dust samples (Decastro et al. 2006). Although estradiol-equivalents deriving from PCBs in New Bedford air, soil, and dust samples were estimated to be at very low picomole levels, they may, nonetheless contribute to undesirable hormonal effects through enhanced bioavailability, bioaccumulation, and combination with other xenoestrogen exposures. Furthermore, there may be critical periods in early development that are particularly sensitive to low-level exposures (Decastro et al. 2006).

Park et al. (2009) conducted a study in which they investigated the concentrations and congener patterns of PCDD/Fs and dioxin-like PCBs in 71 human serum samples: 26 incinerator workers (10 industrial waste incinerator workers and 16 municipal solid waste incinerator workers) and 45 residents in Korea (38 residents within 1 km of the MWI and 7 residents living over 10km away). The mean PCB TEQ for industrial and Municipal Waste Incinerator workers were 6.18 and 6.27 pg/g lipid, respectively. For residents living near the industrial waste incinerators and municipal incinerators, the mean PCB TEQ was 5.99 pg/g lipid and 8.34 pg/g lipid, respectively. The control group had a PCB TEQ of 2.99 pg/g. It is evident that there is little difference between working at the incinerator and living nearby when compared to the PCB TEQ value for residents living further than 10 km away. Schuhmacher (2007) measured dietary intake of PCBs and PBDEs by adult women (ages 20-34 years) from Catalonia,

Spain (Table 2). The highest concentration of PCBs was found in fish and shellfish (11864 ng/kg wet weight) followed by dairy products (675 ng/kg wet weight), while for PBDEs the highest concentrations corresponded to fats and oils, followed by fish and shellfish (588 and 334 ng/kg wet weight, respectively) (Bocio et al. 2003, Llobet et al. 2003). The results indicate that seafood is the greatest PCB contributor in diets. Other parts of diet such as meat and dairy, however, are still important factors to consider when quantifying PCB accumulation in people.

PCB Health Risks

PCBs are industrial chemicals that do not occur naturally in the environment. PCBs were first produced commercially around 1930 and used mainly as industrial lubricants, insulators and solvents until the 1970s. PCBs are probable human carcinogens and can also cause non-cancer health effects, such as reduced ability to fight infections, low birth weights, and learning problems (US EPA 2009). 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 of homeostasis, reproduction, and developmental processes" (Kavlock and Ankley 1996). Endocrine disruptors have the ability to bind and perhaps irreversibly lock a specific hormone receptor, preventing naturally produced hormones from entering the cell, binding their receptor and performing their function (also known as hormone blocking) (Brevini 2005). Exposure to EDs can occur from a number of different sources. Humans and animals can be exposed involuntarily to EDs as a result of drinking contaminated water, breathing contaminated air, ingesting food, contacting contaminated soil, and exposure through womb and breast feeding (Brevini 2005).

Concerns over endocrine disrupting pollutants stem from their ability to affect the endocrine system of wildlife and humans. Endocrine disrupting pollutants also affect the offspring of the exposed generation, even when present in minute amounts such as parts per trillion. When ingested, these compounds are deposited in the fatty tissues (i.e., adipose tissue, blood lipids, and breast milk) of the mother and may be transferred to the infant during nursing. Fetuses are the most susceptible to the effects of PCBs and are exposed via consumption of breast milk. "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"(Jacobson and Jacobson 1996).

Recent studies have provided information about the relationship between low-level endocrine disrupting compound exposure and neurodevelopmental effects; few studies, however, have focused on behavioral outcomes. Sagiv et al. (2010) investigated the association between prenatal polychlorinated biphenyl (PCB)

and p,p'-dichlorodiphenyl dichloroethylene (p,p'-DDE) levels and behaviors associated with attention deficit hyperactivity disorder (ADHD). Six hundred seven children aged 7–11 years (median age, 8.2 years) born in 1993–1998 to mothers residing near a PCB-contaminated harbor in New Bedford, Massachusetts participated in the study. The childrens' ADHD symptoms were measured with the Conners' Rating Scale for Teachers (CRS-T). The median umbilical cord serum level of the sum of 4 prevalent PCB congeners (118, 138, 153, and 180) was 0.19 ng/g serum (range, 0.01– 4.41 ng/g serum). Using the CRS-T, Sagiv et al. (2010) found higher risk for ADHD-like behaviors in children with higher levels of PCBs and p,p'-DDE. An association between low-level prenatal PCB exposure and ADHD-like behaviors in childhood when the authors found higher risk of atypical behavior on the Connors' ADHD Index for the highest quartile of the sum of 4 PCB congeners versus the lowest quartile and a similar relation for p,p'-DDE (Sagiv et al. 2010).

Two studies done in Michigan and Taiwan have linked in utero exposure to polychlorinated biphenyls to adverse effects on neural development in children. In Michigan, deficits were found in fetal and postnatal growth and poorer short-term memory in infancy and at four years of age (Jacobson et al. 1990). These findings have been corroborated in laboratory animals and in studies of more highly exposed Taiwanese children born to women who consumed rice oil contaminated with polychlorinated biphenyls and dibenzofurans (Lilienthal and Winneke 1991).

In Michigan, Jacobson and Jacobson (1996) tested 212 children that were recruited as newborns to represent infants born to women who had eaten Lake Michigan fish contaminated with polychlorinated biphenyls. A battery of IQ and achievement tests was administered when the children were 11 years of age. The study found that prenatal exposure to polychlorinated biphenyls was associated with significantly lower full-scale and verbal IQ scores. An analysis of covariance (Figure 2) indicated that the effect was primarily in the most highly exposed children with prenatal exposures equivalent to at least 1.25 mg per gram in maternal milk, 4.7 ng per milliliter in cord serum, or 9.7 ng per milliliter in maternal serum. The IQ scores of the most highly exposed group averaged 6.2 points lower than those of the other four groups, after adjustment for potential confounding variables (P=0.007). Concentrations of polychlorinated biphenyls in maternal serum and milk at delivery were slightly higher than in the general population.

Volatilization

PCBs have the ability to volatize and release into the air. Biphenyls with 0–1 chlorine atom remain in the atmosphere, those with 1–4 chlorines gradually migrate toward polar latitudes in a series of volatilization/deposition cycles, those with 4–8 chlorines remain in mid-latitudes, and those with 8–9 chlorines remain close to the source of contamination (Wania and Mackay 1996). PCBs enter the

atmosphere from volatilization from both soil and water surfaces (Hansen 1999). Vapor-phase PCBs accumulate in the aerial parts of terrestrial vegetation and food crops by vapor-to-plant transfer (Bohm et al. 1999, ATSDR 2000). This can explain why local food and home gardens may be a significant source of PCB exposure.

Food contamination is primarily caused by airborne persistent organic pollutants (POPs) that settle on plants and accumulate in the food chain. They are particularly associated with fatty foods (Farland et al. 1994, Schuhmacher et al. 2007). The FDA reported that the source of PCBs in the past was the meat-fish-poultry composite (63–100% of total dietary intake) with fish being the major contributing source (Jelinek and Corneliussen 1976). This observation appears to have remained true based on the recent Total Diet Studies conducted from 1991 to 1997 where meat, fish, and poultry were still the primary sources of PCBs in the human diet with fish being the major contributing factor (Bolger 1999). PCB accumulation for given plants can be seen in Table 6-8. Lettuce had the greatest bioaccumulation factor at 6.0 (ATSDR 2000).

Though PCBs in sediment are common sources of exposure for fish, they can also influence atmospheric concentrations of PCBs. Martinez et al (2010) quantified the release of PCBs from Indiana Harbor and Ship Canal to Lake Michigan and the atmosphere. It was determined that 4 ± 0.05 kg of total PCBs were released from the sediment to the water and 7 ± 0.1 kg of total PCBs were volatilized from the water to the air annually (Martinez et al. 2010).

Typical atmospheric concentrations of PCBs have been found to be much lower in rural locations compared to urban locales. For example, the concentration of PCBs in urban Baltimore, Maryland ranged from 0.38 to 3.36 ng/m^3, while in rural Baltimore, the concentration ranged from 0.02 to 0.34 ng/m^3, 10-19 times lower (Offenberg and Baker 1999). PCB levels in more remote areas are even lower, with mean concentrations ranging from 0.025 ng/m^3 over the Norwegian Sea to 0.074 ng/m^3 over the Eastern Arctic (Harner et al. 1998, ATSDR 2000). Water monitoring studies indicate that PCB concentrations are generally higher near sites of anthropogenic input and in in-shore waters. The concentrations of PCBs in the waters of the Great Lakes (Superior, Michigan, Huron, Erie, and Ontario) typically range from 0.07 to 1.60 ng/L (Anderson et al. 1999). Concentrations of PCBs in drinking water are generally <0.1 µg/L and thus, drinking water is not considered a significant pathway for exposure.

Given the ability of PCBs to volatilize, people living or working around contaminated sites can inhale in low doses of PCBs. According to the National Institute of Occupational Safety and Health, the federal occupational health limit for PCBs in the air of workplaces is 1 µg/m^3, based on an 8-hour day, 5-days a week. 1 microgram = 1,000 ng, which translates into 0.240 µg /m^3 or 240 ng/m^3 for constant air exposure 24 hours a day, 7 days a week.

Conclusion

There is a growing body of evidence that supports the claim that people who live in the vicinity of contaminated sites have a higher PCB concentration in their tissues than the general population. The major routes of exposure to these compounds are ingestion of fish (especially sport fish caught in polluted lakes or rivers), meat and dairy products (Dellinger et al. 1996, Falk et al. 1999). Studies indicate, however, that uncontrollable factors, like inhalation of contaminated air near hazardous waste sites, are also significant exposure routes.

When compared to the general public, people living in the vicinity of a PCB-contaminated site are subject to a higher risk of PCB exposure and associated health effects. This risk increases because PCBs impact the community's air, gardens, and local food systems. In these communities, historical PCB institutional controls, like fish advisories, will not be sufficient to protect human and ecological health.

Additionally, these studies illustrate that before choosing a remediation strategy to clean up PCB-contaminated sites, the human health impacts of dredging and the possibility of volatilization, if the sediment is left in place, must be considered. The New Bedford studies show the importance of remediation efforts and the length of time required to accomplish standards that are protective of human health. Traditional cleanup methods may have a greater impact in the short and long term than originally expected. Serum PCB concentrations decreased dramatically after dredging was completed. However, serum levels rose during the time that dredging took place. The disturbance in the sediment increased the rate of volatilization therefore increasing availability of exposure.

PCBs have been well-documented as endocrine disruptors; precautionary measures need to be taken during remediation efforts to protect the public from exposure. Pregnant women are the most susceptible populations, due to accumulation and transfer to their fetuses. "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"(Jacobson and Jacobson 1996). Sagiv et al. (2010) found higher risk for ADHD-like behaviors assessed with the CRS-T at higher levels of PCBs. These results support an association between low-level prenatal organochlorine exposure and ADHD-like behaviors in childhood. Infants have also shown to have neurologic anomalies at birth and developmental delays in gross motor function during infancy (Jacobson and Jacobson 1996) as well as deficits in fetal and postnatal growth and poorer short-term memory in infancy and at four years of age (Jacobson et al. 1990).

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Tables and Figures

Predictor	Adjusted regression coefficient[a,b]		
	Estimate	95% CI	*p*-Value
Age (years)	0.177	(0.135 to 0.219)	< 0.0001
BMI (kg/m^2)	−0.038	(−0.047 to −0.029)	< 0.0001
Duration of breastfeeding (weeks)	0.003	(0.002 to 0.003)	< 0.0001
Maximum parental education[c]	−0.018	(−0.054 to 0.017)	0.31
Residence in Chapaevsk (years)	0.008	(0.001 to 0.015)	0.03
Mother ever employed at Khimprom	0.101	(0.011 to 0.190)	0.05
Mother's local gardening	0.081	(0.039 to 0.124)	< 0.0001
Current residence, distance from Khimprom			
< 2 km	0.101	(0.034 to 0.167)	0.003
2–5 km	0.021	(−0.025 to 0.067)	0.38
> 5 km	Reference		
Any local eggs eaten	0.160	(0.105 to 0.214)	< 0.0001
Any local nonpoultry meat eaten	0.088	(−0.001 to 0.176)	0.05
Any local poultry eaten	0.094	(0.016 to 0.171)	0.02
Any local dairy eaten	0.049	(0.005 to 0.092)	0.03
Any local fish eaten	0.070	(0.017 to 0.122)	0.01
Highest category of local fruit/vegetable eaten[d]	0.089	(−0.022 to 0.200)	0.12

[a]Adjusted for age, BMI, breastfeeding, parental education, residence in Chapaevsk, mother's employment at Khimprom, mother's local gardening, residential distance from Khimprom. [b]Local foods separately included in multivariate model, adjusted for total consumption. [c]Ordinal: reference level = secondary education or less, with higher levels of junior college/technical training and university graduate. [d]Reference = lowest category of local consumption.

Table 1. Predictors of log total serum concentration of PCBs (ng/g lipid) among boys in the Russian Children's Study (Burns et al., 2009)

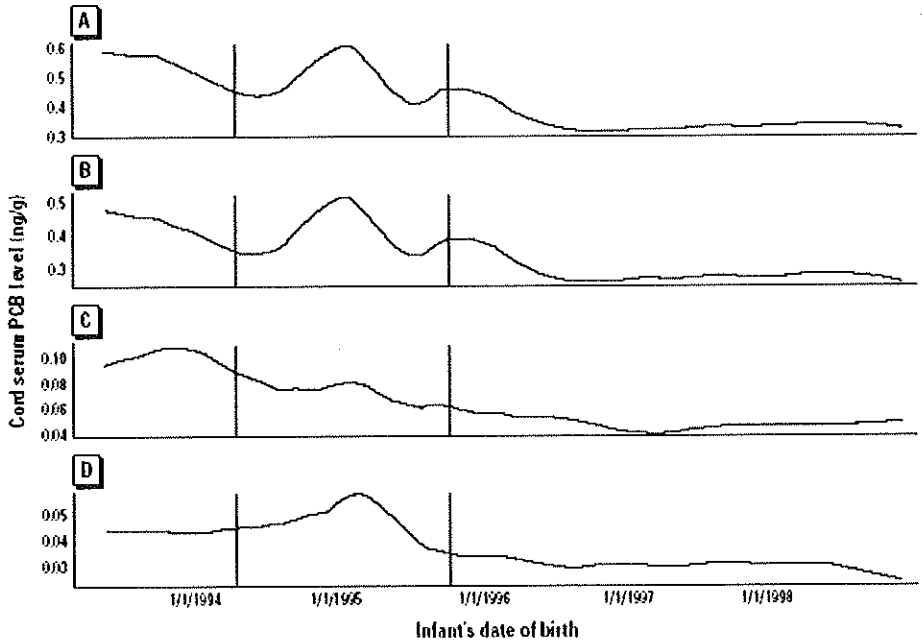

Figure 1. Covariate-adjusted smoothed plots of predicted ΣPCB (A), heavy PCB (B), light PCB (C), and PCB- 118 (D) levels versus infant's date of birth. Vertical lines denote the start and stop dates for dredging of contaminated New Bedford Harbor sediments. Plots are adjusted for child's sex, maternal age, birthplace, smoking during pregnancy, previous lactation, household income, and diet (consumption of organ meat, red meat, local dairy, and dark fish).(Choi, 2006)

Food group	Urban				
	Daily intake (g)	PCBs (ng/day)	% of total PCB	PBDEs (ng/day)	% of total PBDE
Vegetables	186	4	0.43	1.5	2.09
Pulses	9	0.1	0.01	0.1	0.14
Cereals	154	28	3.13	5.4	7.51
Tubercles	49	1.1	0.12	0.4	0.56
Fruits	197	0.9	0.10	1.2	1.67
Fish and shellfish	60	714	79.5	20	28.0
Meat and meat products	134	50	5.58	15	20.3
Eggs	19	9	1.0	1.2	1.67
Dairy products	90	60	6.73	4.3	5.98
Milk	236	16	1.75	4.0	5.56
Fats and oils	33	15	1.63	19	26.6
Total	1167	898	100	72	100

Industrial				
Daily intake (g)	PCBs (ng/day)	% of total PCB	PBDEs (ng/day)	% of total PBDE
178	4	0.45	1.4	2.23
6	0.1	0.01	0.1	0.16
150	27	3.25	5.3	8.43
53	1.2	0.14	0.4	0.64
255	1.1	0.13	1.5	2.38
57	675	80.1	19	30.2
114	43	5.07	13	19.9
14	7	0.77	0.9	1.43
85	58	6.82	4.1	6.52
262	17	2.06	4.5	7.15
23	10	1.21	13	21.1
1197	843	100	63	100

Table 2. Estimated dietary intake of PCBs and PBDFs by adult women (20-34 years) according to specific place of residence (Urban or Industrial) (Schuhmacher, 2007)

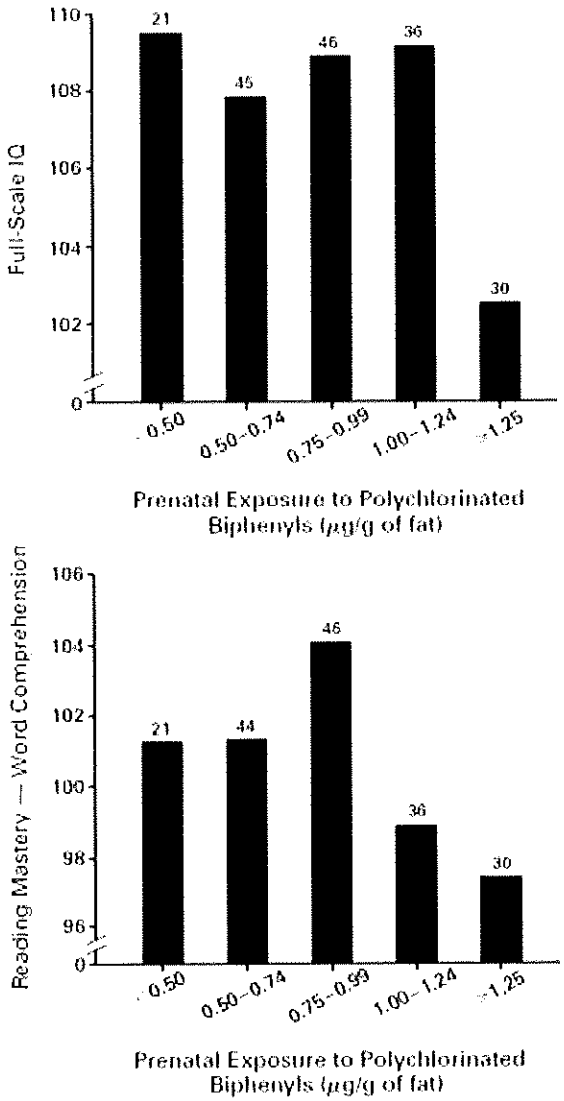

Figure 2. Scores for Full-Scale IQ Tests and Word Comprehension in Reading According to Prenatal Exposure to Polychlorinated Biphenyls (Expressed in Terms of the Fat Concentration of Maternal Milk). Scores were adjusted for the potential confounding variables Listed in the footnotes to Table 3. The number of children in each group is given above the bars. One child was not tested for reading mastery.

Crop (growth media)	Application rate	BAF[b]	Reference[a]
Carrot (soil)	Aroclor 1254 at 100 ppm mixed in top 6 inches of soil	<1 (Aroclor 1254) • 0.16 (roots)	Iwata et al. 1974
Carrot (acid soil and brown sand)	Aroclor 1254 at 0.05, 0.5, and 5 ppm (acid soil); 0.5 ppm (brown sand)	0, << 1, <1, 0.16 (roots) <1, 0.16 (roots peels)	Wallnöfer et al. 1975
Carrot (soil)	PCB 4 at 1 ppm in dry soil, mixed in top 10 cm	<1 (di-PCB) 0.25 (roots) 0.25 (leaves)	Moza et al. 1976
Carrot (soil)	None	1.5 (PCB 52) 0.35 (PCB 101) 0.38 (PCB 138) 0.28 (PCB 153)	Cullen et al. 1996
Corn (field)	Aroclor 1254 and 1260 contaminated sludge (92–144 µg PCBs/L sludge)	<1	Lawrence et al. 1977
Lettuce (soil)	None	6.0 (PCB 52) 1.5 (PCB 101) 1.1 (PCB 138) 0.74 (PCB 153)	Cullen et al. 1996
Potato (soil)	None	0.29 (PCB 52) 0.01 (PCB 101) 0.17 (PCB 138) 0.28 (PCB 153)	Cullen et al. 1996
Radish (acid soil and brown sand)	Aroclor 1254 at 0.05 ppm (acid soil or brown sand), 0.5 ppm (acid soil); Aroclor 1224 at 0.2 ppm (brown sand);	0, 0, 0.02	Wallnöfer et al. 1975
	Aroclor 1254 at 5 ppm (acid soil) with moisture 40% of maximum water holding capacity	0.005	
Soybean sprouts (sandy soil)	Aroclor 1242 at 100 ppm	0.002	Suzuki et al. 1977
Sugarbeet (brown soil)	Aroclor 1254 at 0.3 ppm in soil	0.01 (leaves) to 0.5 (whole plant) 0.17 (root peels) 0.03 (peeled root)	Wallnöfer et al. 1975
Sugarbeet (field soil)	PCB 4 at 0.24 ppm in 0–10 cm soil layer and 0.17 ppm in 10–20 cm soil layer	0.07 (roots) 0.03 (leaves)	Moza et al. 1976
Tomato (soil and vermiculite)	PCB 4; PCB 7; PCB 18; PCB 52; PCB 101 (concentration not specified)	0 for all PCBs (mature plants)	Pal et al. 1980

Table 3. Plant Uptake (Bioaccumulation) of PCBs (ASTDR, 2000).

Appendix B
Results of PCB literature search for the past two years:

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January 31, 2011

Susan Svirsky, Rest of River Project Manager
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Dear Ms. Svirsky:

Green Berkshires appreciates the extension of the informal comment period on the Revised Corrective Measures Study now being reviewed by the U.S. Environmental Protection Agency. It's our understanding that, since this is an informal comment period, additional information and comments will be accepted by the EPA as it continues its analysis of the Revised CMS and its planning for the clean-up and restoration of the Housatonic River. We look forward to providing additional comments to the EPA as more information becomes available. Therefore, our comments today are in the form of a broad overview of the principles we believe should underlie consideration of treatment options for the river, concerns we believe need to be more adequately addressed before any option is selected, and initial recommendations for next steps. We also reiterate comments made in our letter to the EPA dated October 23, 2009.

We have read the Revised CMS and other materials on the EPA website. We have assessed information from other sources, as well. We are also mindful of the underlying science and broad support from state agencies and the public for the designation of the Housatonic River and environs between the confluence of its East and West Branches in Pittsfield and the Golden Hill bridge in Lee as an Area of Critical Environmental Concern.

Principles

- Our first priority should be to avoid destroying the river system while attempting to "save" it.

- There should be no rush to solve a problem that was created over a period of decades.

- The public should have an expanded role in determining work on the river.

- PCBs removed from the river should not then be dumped untreated somewhere else.

- Setting a longer timetable and doing less might be the boldest action of all.

Concerns

- After studying the alternatives outlined in the Revised CMS, we remain concerned that all of the dredging options will irreparably harm the unique, sensitive, and complex balance of the Housatonic River system. While we appreciate that the EPA may have the best-available science regarding the process and results of remediation and restoration, we do not believe that humans can replicate even in a few generations a system that has evolved naturally over thousands of years. Based on what we have read so far, it appears to us that the dredging alternatives being considered will destroy a flourishing river system and, even under the best replication scenarios, replace it with a lesser facsimile. We also question the logic of enabling the chance for certain species to regain their positions in the ecosystem by sacrificing the habitats and survival opportunities of other species, particularly state-listed rare species, of which there are 32 between the Confluence and Woods Pond Dam.[1] In addition, we doubt that in the extensive backwaters, oxbows, marshes, and floodplains of the river the vernal pools can be adequately replicated.

- We remain unconvinced that even the most draconian option for expunging PCBs from the river system will achieve the human health and ecological goals that are the impetus for any work. According to the Executive Summary of the Revised CMS, none of the clean-up options will allow people to eat fish without restriction.[2]

- Evidence from dredging projects at other sites raises questions as to whether or not even the best-designed plans can be successful. As was noted in the Peer Review of Phase 1 Dredging Final Report on the Hudson River, "The results of Phase 1 dredging tangibly demonstrate that there are practical limits to our collective ability to predict outcomes for sediment remediation projects. The physical, chemical, and biological processes involved are complex and the uncertainties associated with data and models relevant to those processes are significant. This reality has been amply demonstrated during Phase 1 as well as at contaminated sediment remediation projects across the country."[3]

- Although it's evident that a tremendous amount of effort has been devoted to developing metrics and models, based on all that is happening elsewhere in the U.S. in terms of ongoing pollution and clean-up attempts, the assumptions and performance standards to achieve the goals of a clean-up of the Housatonic seem

[1] See page 5-2 of the Revised CMS.
[2] See page 2 of the Executive Summary.
[3] http://www.epa.gov/hudson/pdf/hudsonriverphase1dredgingreport_final.pdf, p. 42 of 102

disconcertingly arbitrary. As just one example, there appear to be multiple definitions of PCB levels that constitute a significant threat to human health. The federal government itself seems to have more than one definition. According to a recent *Wall Street Journal* article on newly discovered PCB contamination in New York City schools, "[f]ederal law requires removal of material with PCBs in higher concentrations than 50 parts per million."[4] If children are allowed to be in schools where they are exposed on a daily basis to PCB levels up to 50 parts per million, why is dredging the river bed and its banks and floodplains down to the level of 1 or 2 parts per million considered a requirement for achieving a river environment that is safe for human activity?

- It may not be possible to achieve the goals set by the EPA since there are many sources of airborne and waterborne pollutants that will continue to pollute the Housatonic River and its surroundings.

- The EPA's goals may be too narrowly parochial and thus largely irrelevant in terms of protecting human health since people are exposed to PCBs and other pollutants from multiple sources. An article in the *New York Daily News* about the PCB contamination in New York City's public schools noted that PCB-laden caulking is in thousands of buildings nationwide. Recent media reports from such states as North Carolina, Pennsylvania, and California describe fish advisories covering many rivers and lakes due to elevated PCB levels.[5] Peter DeFur has said that more than 7,000 waterbodies in the United States have elevated levels of PCBs.

- There seems to be an unsupported assumption on the part of decision-makers that fewer PCBs in the Housatonic River and its floodplain will translate to better health and longevity for residents of Berkshire County and Connecticut.

- It's not at all clear that the river is used now in ways that directly expose significant numbers of people to harmful levels of PCBs. In the 1997 Housatonic River Area PCB Exposure Assessment Study, prepared by the Massachusetts Department of Public Health, about 3% of the participants in the Exposure Prevalence Study had eaten fish from the Housatonic for an average of 20 years.[6] Has that number changed in the 14 years since the study was submitted? Does that number justify dredging the river, especially given that none of the dredging proposals will result in unrestricted fish consumption?

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[4] http://online.wsj.com/article/SB10001424052748703555804576102432592148342.html?mod=googlenews_wsj

[5] http://pottsmerc.com/articles/2011/01/07/news/doc4d2762e5d47a0024406413.txt; http://www2.mooresvilletribune.com/news/2011/jan/06/public-advised-not-eat-certain-bass-catfish-catawba-ar-672389/; http://business-video.tmcnet.com/news/2011/01/30/5276733.htm; http://www.dredgingtoday.com/2011/01/07/usa-twelve-mile-creek-dredging-project-under-way/

[6] See page 1 of the Housatonic River Area PCB Exposure Assessment Study.

- There may be less invasive ways of protecting the people who do use the river frequently, such as the continued use of signage warning against fish consumption.

- It seems an open question as to whether the very methods used to clean the river will actually increase exposure of more of the public to harmful levels of PCBs.

Recommendations

- Before the EPA reaches a final decision on the clean-up and restoration methods for the Housatonic River, it should provide to the public a combined assessment of dredged and undredged areas at other PCB-contaminated locations, conducted over an adequate period of time. The Peer Review of Phase 1 Dredging Final Report on the Hudson River recommended a 25-year timeframe for a comparative evaluation at that site,[7] and it makes sense to compare the consequences of dredging and not dredging elsewhere with similar thoroughness and caution.

- There should be much more detailed and long-term evaluation of the non-dredging alternative. As noted in footnote 4 of the Executive Summary of the Revised CMS, "the most recent adult fish sampling data from the River, which were collected in 2008, show a substantial reduction in PCB concentrations in the fish in the PSA from those measured in 1998 and 2002." The Revised CMS also notes that with no dredging (SED 1), and using EPA's own model, "the annual average PCB mass passing Woods Pond Dam is predicted to decrease by 37% over the 52-year model projection period…"[8] If that's the case, what would be the percentages over 100 and 200 years? According to footnote 116 of the Revised CMS, "the model-predicted water column concentrations [of PCBs] under SED 1 are below" the EPA's national drinking water standard.[9]

- We would like to see a study of using Woods Pond as a catch basin for PCBs, with a filtration system to prevent those from migrating below the Woods Pond Dam, coupled with a regular dredging of Woods Pond to remove the PCBs that have accumulated there.

- There should be more thorough evaluation of what could be expected over certain time periods from a combination of relying upon the river's natural self-cleansing mechanisms and dredging targeted to specific areas of the river and its floodplains.

- Every PCB removal option being considered must be evaluated in terms of its possible health impacts on the human communities along the river, including on workers, *during* the clean-up and restoration activities, with explanations in

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[7] http://www.epa.gov/hudson/pdf/hudsonriverphase1dredgingreport_final.pdf, p. 45 of 102
[8] See page 6-7 of the Revised CMS.
[9] See page 6-8 of the Revised CMS.

layman's terms of *ongoing* risks from exposure to PCBs in the air, water, soils, and sediments.

- For each alternative being considered, the economic impacts to landowners, towns, and businesses of the region should be fully analyzed; this should include the transportation impacts of redirecting traffic off Holmes Road onto Route 7.

- Issues such as the locations of staging sites and access roads in residential areas of Pittsfield, Lenox, and Lee, the transportation of PCBs through neighborhoods, the lighting necessary to allow for round-the-clock dredging, and the probable reductions in property value, among other issues, should all be thoroughly disclosed and explained to people who live along or near the river. These issues will be particularly important, if, as was the case with Phase I of the Hudson River clean-up, dredging is expected to occur 24 hours a day, six days a week.[10]

- Any clean-up effort should be assessed in the context of the broader presence of pollutants in the environment, including not just PCBs but dioxins, mercury, and other toxins.

- Prior to a decision about any work, comparative studies of PCB levels in humans, fish, and other animal life, in the soil, sediment, and air, and in the water column should be updated so that the public can be informed about the extent to which those levels have changed since earlier studies were conducted.

- New technologies for removing and disposing of PCBs should be aggressively evaluated and tested.

- Any work should be done in a phased manner, with opportunities for active public participation in discussion about adaptations as new information about the work in progress, experience elsewhere, and new or improved technologies becomes available.

- Much more information needs to be provided to the Berkshire community about the experiences at other PCB remediation and restoration sites around the country; the EPA should provide examples of cleanup and restoration projects on other rivers of comparable length, meander, and complexity.

- The trade-offs involved in any work should be laid out much more explicitly in the form of cost-benefit analyses for the Berkshire community.

- The ACEC designation, and the laws and regulations that support it, should be factored into any plan for removing PCBs from the river and floodplains.

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[10] http://www.epa.gov/hudson/

- No PCB dumps – temporary or long-term - should be allowed in Berkshire County; plans to transport PCBs to other locations should be accompanied by a clear analysis for Berkshire residents of the long-term and cumulative impacts of PCB exposure to human populations along the transportation route and at the distant dump sites.

- The Consent Decree should be amended to provide a decision-making role for the select boards of towns downstream of Pittsfield.

- People, particularly those who live and work along the river and its neighboring communities, must be fully informed in understandable language as to the risks and benefits of varying types and levels of action on remediation and restoration, both to the human and natural environments.

- Any plan that involves work in or along the river should be accompanied by an upfront offer to every landowner along the river for a buy-out at a market rate determined before news of the ultimate work plan is released.

- If less dredging is done, there should be a compensatory plan for General Electric to fund the purchase of land for conservation purposes in the communities along the river and its tributaries, to fund ecological studies on those parcels, and to fund a perpetual program of payments in lieu of taxes for those properties to those towns.

Again, thank you for the opportunity to submit comments on the Revised CMS. Green Berkshires looks forward to continued active involvement in the public discussion about the best options for the Housatonic River.

Sincerely yours,

Eleanor Tillinghast

CC: Senator John Kerry
Senator Scott Brown
Congressman John Olver
Governor Deval Patrick
Senator Ben Downing
Representative Smitty Pignatelli
Greg Federspiel, Lenox Town Manager
Bob Nason, Lee Town Manager
Kevin O'Donnell, Great Barrington Town Manager
Joe Kellogg, Sheffield Town Manager
Nat Karns, Berkshire Regional Planning Commission

HADDAD DEALERSHIPS OF THE BERKSHIRES

Driving to please.

January 27, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

RECEIVED
JAN 28 2011
By

Dear Ms. Svirsky,

The purpose of my letter is to formally express my comments about Phase II of the Housatonic River Clean Up "Rest of the River" Project.

I own three companies in the Berkshire County Area (Haddad Toyota, Haddad Subaru and Haddad Hyundai) and also own several properties. It is my company's position that the EPA should take a low impact approach towards the "Rest of the River" project. First and foremost, the EPA's should meet the human health criteria. Then balance economic needs of local residents and businesses, environmental needs of the wildlife and maintain the natural beauty of the river, its banks and the neighboring wetlands.

An aggressive cleanup plan similar to the Phase I would certainly forever alter the beauty that has withstood hundreds of years worth of development and even contamination in the Berkshires. I am an owner of property that abuts part of Housatonic River which was involved in Phase I. I look at the devastation that the aggressive clean up and dredging of the river and its banks every day. It would be a sin to allow that to happen to such a beautiful section of the river and what it presently offers to all.

This section of river is completely different from the section of river included in phase I. The "Rest of the River" runs thru beautiful areas of the Berkshires where there is plenty of wildlife and recreational activities. An aggressive approach

HADDAD DEALERSHIPS OF THE BERKSHIRES

Driving to please.

would virtually kill or transplant all wildlife and stop all recreational activities for the next 10 plus years.

As business owner, property owner and concerned resident of Berkshire County, I ask that the EPA take a low impact approach to this very important issue of PCB removal. I strongly urge you to approve this type of clean up, which I believe would be best for business, residents, wildlife and the environment.

Thank you for allowing this time to comment on such an important matter.

Respectfully submitted,

George L Haddad

George L Haddad
President
Haddad Toyota
Haddad Subaru
Haddad Hyundai
Residence:
Pittsfield, MA 01201

Celebrating 25 Years

Hillcrest Educational Centers, Inc.

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January 27, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms.Svirsky:

I am writing to offer formal comment on General Electric's Revised Corrective Measures Study (CMS) recently submitted for Phase II of the Housatonic River Clean Up.

In so doing, and on behalf of Hillcrest Educational Centers, Inc., I strongly urge you to consider a low-impact clean up solution, which does not include extensive dredging, but does address the goal of meeting human health standards. This portion of the River, otherwise know as the *Rest of the River*, is very different from the area addressed in Phase I, which ran primarily through an industrial district. This portion flows through a natural, forested and wetlands area filled with wildlife and recreational activities enjoyed by residents and visitors alike for hundreds of years.

A radical dredging effort, similar to that undertaken by GE previously, would last 10-20 years during which time thousands of trucks and construction equipment vehicles would travel through residential areas in southern Berkshire communities that rely on tourism for economic survival. This major effort would also require staging areas and dewatering facilities to be built through these forested and wetlands areas causing widespread, extensive damage. We at Hillcrest Educational Centers, Inc. believe that a low-impact solution will balance the economic needs of our residents and the environmental needs of the wildlife, while meeting the EPAs human health criteria. Anything more would cause widespread long-term and in some cases permanent damage.

As a business leader, I ask that the EPA take a cautious approach to this very important matter of PCB removal. I strongly urge you to approve a method, which would have the least negative impact on the Berkshire County economy and environment.

Thank you for the opportunity to comment on such an important decision. I look forward to finding a solution to clean up the *Rest of the River* that balances the needs of our community with that of meeting human health standards as determined by the EPA.

Sincerely,

Gerard E. Burke
President/CEO

RECEIVED
JAN 31 2011
By

Housatonic Environmental Action League, Inc.

Post Office Box 21, Cornwall Bridge, CT 06754-0021 860-672-6867

January 31, 2011

Susan Svirsky, Rest of River Project Manager
United States Environmental Protection Agency
c/o Weston Solutions
10 Lyman Street
Pittsfield, Massachusetts 01201
facsimile: 413-442-4447

Sent via email to: svirsky.susan@epa.gov

RE: Informal Comments
EPA GE/Housatonic River Site
Rest of River
General Electric Company's Housatonic River – Rest of River, Revised Corrective Measures Study Report, October 2010

Dear Ms. Svirsky,
HEAL is a 501(c)(3) grassroots organization of business, professional, scientific, and a general cross section of citizen stakeholders from the tri-state Housatonic River Watershed. HEAL is based in Connecticut, and is a longstanding member of the Citizens' Coordinating Council for the EPA Housatonic River site. Two of our primary goals related to this site have been to: 1) educate stakeholders on all the issues related to the dumping of polychlorinated biphenyls (PCBs) and other hazardous toxins by General Electric (GE) into the river system; 2) advocate for a comprehensive remedy of this EPA hybrid Superfund site that is protective of ecological and human health, all towards the ultimate endpoint of a swimmable and fishable river in both Massachusetts and Connecticut.

During the past sixteen years of our involvement with this site, we consider GE's "Revised Corrective Measures Study Report" to be their single most blatant attempt to engage in CERCLA obfuscation. [Superfund is the common name for the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980.]

Using their lawyers and "environmental" scientists, GE is currently spending a huge sum of money to craft not-so-creative arguments based on their junk science to avoid paying for a real cleanup of the Housatonic River Watershed. Untold additional dollars are being poured into a public relations campaign to spread their repetitive mantra to anyone who is either naïve or foolish enough to listen, that: 1) the remaining PCBs are harmless; 2) it is legally "impractical" to remove the contamination; 3) dredging = permanent destruction; 4) any remediation activities in certain "sensitive" areas of the river will result in permanent destruction of ecosystems; 5) the river will clean itself via (Monitored) Natural Recovery, which will eventually reduce or erase any adverse human or ecological threats -- threats that GE claims are erroneous EPA findings; 6) there are no new innovative and alternative technologies (beyond dredging, dumping, stockpiling, burying, capping or incinerating) available in the United

States that will effectively destroy hyperstable chlorinated compounds such as PCBs found in this river's water column, river bed sediment, river bank sediment and floodplain.

GE has adopted similar tactics at every major toxic site throughout the US where they are either partially or totally responsible for contamination. We hear from multiple other stakeholder groups at other Superfund sites throughout the US of GE's attempts to co-opt existing entities in order to have them assist GE by carrying to the masses GE's propaganda. If at any given site GE is unable to co-opt an existing group, they create a pseudo-environmental group of their own as another vehicle to spread their Fairfield, CT corporate headquarters' mission to obfuscate.

GE will not hesitate to use scare tactics and deceptive practices to frighten and confuse citizens into adopting whatever GE corporate headquarters declares. They further "cloud the waters" using words, social media sites, behind-the-scenes deals and private meetings with stakeholders, donating to groups, deceptive photos, and highly produced videos with bucolic scenes and soothing music. In other words, a deceptive and disingenuous public relations campaign aimed at either delaying or avoiding cleaning up the environmental degradation they have caused.

Earlier at this site during the behind-closed-door Consent Decree negotiations, one existing group made the error and took the hook. For their reward, their coffers were filled with GE blood money. Money that was made off the backs of the loyal GE workers in and around Pittsfield. During this Rest of River process, that group appears to have learned from their previous mistake. However, there is always another group to be co-opted, and GE has once again been successful in luring them in like a spider to its web.

HEAL is requesting that EPA require that General Electric divulge an accounting of their recent public relations campaign. Combined with what GE wasted during the Consent Decree negotiations disinformation campaign, those funds could have been allocated to EPA's eventual Rest of River remediation decisions.

NO DUMPS

In the presence of current, EPA-approved, practical and affordable PCB-destruction technology, there no longer exists any scenarios that would warrant additional toxic waste dumps within the watershed. We will continue to object to one of the primary tragedies of the Consent Decree known as Hill 78. Hill 78 is a multi-acre unlined toxic waste dump located on the defunct GE plant site in Pittsfield, bulging with PCB-contaminated sediment and other toxic material, and within view of and approximately 25 feet of Allendale Elementary School property. We will not accept any additional dumps, anywhere along this site, for any reason.

ALTERNATIVE TECHNOLOGY

On January 19, 2011, the Housatonic River Initiative (HRI) with HEAL among the co-sponsoring groups, presented another excellent and informative alternative technologies workshops with Christopher Young of Biotech Restorations and representatives from Genesis Fluid Solutions. Biotech Restorations has completed EPA sites contaminated with toxic chlorinated compounds in California. Biotech Restorations' process has resulted in certificates of completion from EPA designating 'unrestricted use' of these sites...meaning that the once contaminated parcels are now available for even residential use. Genesis Fluid Solutions removes river sediment in the wet, rapidly dewaters and then makes available to Biotech Restorations PCB-laden sediment that is ready for PCB-destruction treatment. Genesis units are built on a small footprint (500' x 500'), and they have a proven track record at EPA sites. At the presentation, Mr. Young clearly indicated that his company's process, combined

with Genesis Fluid Solutions' sediment preparation system, would cost far less than “conventional” dredging, dewatering and transporting of contaminated sediment to an approved toxic landfill facility. HEAL strongly supports a pilot project for a Biotech Restorations/Genesis Fluid Solutions collaboration.

PETER DEFUR

HEAL endorses comments submitted by Dr. Peter deFur on behalf of HRI. HRI is the exclusive stakeholder group at this Superfund site to receive a Technical Assistance Grant; Dr. deFur's expert assistance is paid for through HRI's TAG proceeds.

ADAPTIVE MANAGEMENT

Applying the continual evaluation process of Adaptive Management leads to cost-effective, successful remediation and restoration projects. Plan, act, monitor, evaluate and adjust during the entire Rest of River remedy decisions, always taking into consideration new emerging technologies.

CONNECTICUT

It is disturbing that the Housatonic River in Connecticut continues to be ignored by both EPA and GE. The PCB contamination in the CT section of the river was all but ignored by the State of CT's Governor, Attorney General and Department of Environmental Protection during the period of the Consent Decree negotiations. As a result of CT DEP's unwillingness at that time to aggressively and effectively advocate for the Housatonic River, its wildlife, biota and CT stakeholders, the EPA was able to bypass adequate and thorough contamination characterization and data collection in CT in favor of the Commonwealth. As Rest of River decisions evolve, and as Adaptive Management practices are hopefully implemented by EPA, it is imperative that the entire section of the river in CT, its floodplain and impoundments be reevaluated for potential new PCB-destruction technologies as they become available.

REPOSITORIES

Although GE's cover letter indicated that “Public Repositories” were to receive a copy of their Revised CMS, there was no hardcopy of this 1000+ page document in either the Cornwall (CT) Library or Kent (CT) Library official EPA Repositories.

CONCLUSION

The time has arrived for EPA to acknowledge that the RP is not acting in good faith. Stakeholders are united in calling for an effective removal action that will destroy PCBs, responsibly purge them from the watershed and from further global transport. The RP is exhibiting an anachronistic and boorish attitude to its legacy of contamination, and stunning disrespect to the employees and their families who competently and loyally worked for “The GE.” The peer reviewed Ecological and Human Health Risk Assessments are powerful documents that clearly demonstrate that harm will continue if the toxic compounds are allowed to remain. HEAL implores the EPA to recognize that the RP has satisfied the mandate to revise their CMS, file it away in the voluminous official repository in Boston, and immediately begin the process towards the next phase of remediation decisions in order to bring the Housatonic River back to health.

We appreciate the additional extension granted by EPA for this public comment period.

Respectfully submitted,
Judy Herkimer, Director
Tom Sevigny, Director

HOUSATONIC RIVER COMMISSION

"to coordinate on a regional basis the local management and protection of the Housatonic River Valley in northwestern Connecticut"

(860) 868-7341 17 SACKETT HILL ROAD • WARREN, CONNECTICUT 06754

Tuesday, December 14, 2010

Susan Svirsky
Rest of River Project Manager
United States Environmental Protection Agency
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

RE: EPA GE-Housatonic River Site, Corrective Measures Study (CMS), Informal Public Comments

Dear Ms. Svirsky,

Please accept the following comments on behalf of the Housatonic River Commission. The Commissioners represent the Connecticut towns of Canaan, Cornwall, Kent, New Milford, North Canaan, Salisbury and Sharon. We act as an advisory board whose major task is commenting on construction on the river, river use, re-licensing of the power plants and working to maintain an environmentally healthy and scenic river corridor.

Several HRC commissioners have participated in aspects of the Consent Decree and subsequent remediation process in Pittsfield. We have followed the dredging process and toured the GE site many times during the first two mile remediation. One commissioner has attended the Citizen's Coordinating Council's (CCC) meetings for ten years. We have also participated in the EPA's Human Health Risk Assessment and the EPA's Ecological Risk Assessment. Your data clearly indicate the persistent environmental problems with PCB's in the Housatonic River. The evidence leaves no doubt that the removal of PCB's from the environment is imperative. As your Regional Administrator, Curt Spalding, says "Make no mistake: the Housatonic is a severely degraded river. Concentrations of PCB's in the fish and wildlife and floodplain are among the highest ever measured in the country, and they pose an ongoing threat to the health of people and wildlife living near and using the river. It's our generation's job to address this issue and make the right choices so that future generations will be able to safely enjoy life near the river." (Letter to the Editor of the Berkshire Eagle, Oct.7, 2010)

RECEIVED
DEC 16 2010
By

We urge the EPA to reject GE's revised Corrective Measures Study (CMS) on the grounds that GE does not seem to care about the concerns voiced (over the years) by the knowledgeable, long time, stakeholder participants in the CCC who have asked for options like 1) In place treatment of PCB's, 2) In place isolation except capping and 3) Other processes for removing PCB's in addition to Biogenesis soil washing. Many stakeholder comments asked for sediment to be transported by rail, also ignored. We feel that all our comments have been ignored, all of Connecticut has been ignored and that Monitored Natural Recovery (MNR) is only good for GE's bottom line. Rather than expanding their options GE has chosen to obfuscate and stall and is trying instead to scare and co-opt uninformed individuals and groups about remediation options.

The EPA is ultimately responsible for making sure GE fully cleans up its toxic PCB's from the Housatonic River. The time has come to put people to work on the rest of river. Unfortunately, the style and tone of GE's revised CMS is more like that of an opinion piece than a technical document. Section 2 contains a great deal of language about why GE does not have to comply with EPA directives and seems to be written as a document intended to support a legal challenge to an EPA decision on remediation. The Executive Summary which presents arguments why GE should not undertake any further actions to clean up the PCB's is an insult to the scientific community the stakeholders, the HRC and especially the EPA.

The Housatonic River Commissioners intend to fully support the EPA in challenging GE to do better and we look forward to commenting on EPA's counter proposal for the rest of river.

Sincerely,

William Tingley, Chairman

William Tingley, Chairman
Housatonic River Commission

To: Susan Svirsky/R1/USEPA/US@EPA
From: Tim Gray <housriverkeeper@gmail.com>
Date: 01/24/2011 02:16PM
Subject: petition

(See attached file: scan0008.pdf)

Dear Susan Svirsky.

Please accept this petition of names collected at Stop the Dumps meetings.

Thank you

--
Tim Gray
Housatonic Riverkeeper
Executive Director - Housatonic River Initiative
P.O. Box 321
Lenoxdale,Massachsetts 01242
413-446-2520
housatonicriver.org

We the undersigned citizens of Berkshire County and other communities ask the United States Environmental Protection Agency to require General Electric to clean to our Housatonic River of their toxic PCBs with the best available technology. We ask that General Electric is required to use innovative technology to destroy the PCBs instead of dumping them in several sites both near and in the river. We also ask that the community be kept informed of all pending decisions with opportunity for input.

Pennie L. Curry 29 Village Rd Alford

[illegible] Arenstein Weatogue Rd. Salisbury, CT

[illegible] 266 Soller Hight, Ghent NY

Janet Elsbach 1554 Bordman Sheffield MA

[illegible] POB 94 N. Egremont MA 01252

Ezra Marcus 95 Alford rd.

[illegible] Davis 2 Yale Hill, Stockbridge MA 01262

Helen Davis 2 Yale Hill Stockbridge MA

Ella Mae FORMEL GB, MA

Pauly Margraf GB, MA

Sarah Jones 3 Old Mutual Dam Rd Stockbridge MA

Caroline Forsman 22 Mearns Way Egremont MA

Dean Forsman 22 Mearns Way, S. Egremont MA

Elizabeth Holland 35 Baldwin Hill, GB MA

Lee Cheff 75 Baldwin Hill N-S, Egremont MA

[illegible] 2 Pine St. Stockbridge, MA

We the undersigned citizens of Berkshire County and other communities ask the United States Environmental Protection Agency to require General Electric to clean to our Housatonic River of their toxic PCBs with the best available technology. We ask that General Electric is required to use innovative technology to destroy the PCBs instead of dumping them in several sites both near and in the river. We also ask that the community be kept informed of all pending decisions with opportunity for input.

Eleanor Green 97 Main Rd Tyringham MA 01264
Sue Gibson 130 East Rd Alford MA 01266
Cordenole Jackson P.O Box 99/21 High Str. Housatonic MA 01236
Diane Cowles 47 Van Deusenville Rd. Housatonic MA 01236
" "
Jack Cowles
Regina Torkey Perkin 201 Rossiter Rd, Richmond, MA 01254
Tim Bardwell 45 Stockbridge Rd, West Stk MA 01266
Ashley Kruszyna 3 West Stockbridge Rd, Stockbridge MA
Ryan T. Hassett 308 Park ST Great Barr, MA 01230
Lisa Landry 89 Division Great Barrington, MA 01230
Ashley Kuehn 3 Forest Row, GB, 01230
Susan Yuro 96 Main St. Sheffield MA 01257
Carla Blades 37 High ST GB. MA 01230
Lisa Hayden Great Barrington MA 01230
[illegible] 7 Forest Row GB, MA 01230
Mary Hultzel 1 N. Church St. Stockbridge MA 01262

We the undersigned citizens of Berkshire County and
the United States Environmental Protection Agency t
Electric to clean to our Housatonic River of their tox
available technology. We ask that General Electric is
innovative technology to destroy the PCBs instead of
several sites both near and in the river. We also ask th
kept informed of all pending decisions with opportun

Tyler Andrews	Goodrich Street	Stockb
Steve Page	6 Walnut St	Gt
Clesta Ford	42 Foote Ave	P
John Ford	42 Foote Avenue	G
Sarah J. Ford	13 South John St.	P.
JAMES MAHER	24 EAST RD	P
Carmen V. Rossi	360 Park St. #2	P
WARD Schoonmaker	343 Halsey	P
Janet Chase	371 Berkshire	
Dr Smatterson	A.I.E.R.	(
	Hillsdale CT	

We the undersigned citizens of Berkshire County and other communities ask the United States Environmental Protection Agency to require General Electric to clean to our Housatonic River of their toxic PCBs with the best available technology. We ask that General Electric is required to use innovative technology to destroy the PCBs instead of dumping them in several sites both near and in the river. We also ask that the community be kept informed of all pending decisions with opportunity for input.

Jim Conzo 108 Church Rd Mill River 01244

John Ackerman 108 Church Mill River 01244

John Knightlin 43 GLENDALE RD. STOCKBRIDGE MA

Mary Kingston 43 Glendale Rd. Stockbridge MA 01262

Shirley Olds 36 Blue Hill Rd, Monterey, MA 01245

Mark Shapp 6 MORGAN MANOR #13 Lenox MA 01240

Joan Barber 29 Division St. G.B.

Adrienne Gardner 76 Stony Brook Rd, G.B

Mark Gardner 76 Stony Brook Rd G.B.

C. Wheeler P.O. Box 566, 01262

[illegible] 35 Kimberlyn 01230

Naomi Alson Box 363 S. Lee, Ma. 01260

Teresa B. Wise PO Box 226 Stockbridge 01262

Judy Magsamen Box 354 Sheffield MA 01257

Anne Rudin 77 Seekonk Cross GB MA 01230

Robin Heifer 24 Ice Glen Rd, Stockbridge, MA 01262

We the undersigned citizens of Berkshire County and other communities ask the United States Environmental Protection Agency to require General Electric to clean to our Housatonic River of their toxic PCBs with the best available technology. We ask that General Electric is required to use innovative technology to destroy the PCBs instead of dumping them in several sites both near and in the river. We also ask that the community be kept informed of all pending decisions with opportunity for input.

Matthew Damer 41 LIVINGSTON AVENUE, PITTSFIELD MA 01201

Montano Christa, 205 Oakst. Housatonic MA 01236

Ursula Ramer 1 Stockbridge Rd, Lee, Ma 01238

Angela R Vinagniano 4 Willow St., Glendale, MA 01229

B Shulman 43 W Sheffield Rd - Gt Barrington MA 01230

Gail Kelly 39 Lakeside Rd. New Marlboro 01230

Robin Zeamer 8 Forest Row Great Barrington MA. 01230

Cardenalo Jackson 21 High Str Housatonic MA 01230

D R Tonico 313 Division St Gt Barrington MA. 01230

Lois F. Rose 8 Lake Buel Rd. Gt Barrington MA. 01230

Genevieve Sawyer 20 Memorial Court Denville NJ 07834

Kathryn Jensen, 1066 Main, Housatonic, MA 01236

John Ellis 269 Gt. Barr. Rd. Housatonic. MA 01236

Alice Seagnitz WOM 12 Long Pond Rd Housatonic MA 01236

We the undersigned citizens of Berkshire County and other communities ask the United States Environmental Protection Agency to require General Electric to clean to our Housatonic River of their toxic PCBs with the best available technology. We ask that General Electric is required to use innovative technology to destroy the PCBs instead of dumping them in several sites both near and in the river. We also ask that the community be kept informed of all pending decisions with opportunity for input.

Susan Mower — Susan Mower 80 Maple Ave Gt. Barrington MA 01230

Elizabeth McTernan 148 Alford RD Gt Barrington MA 01230

Tom Doyle 147 East Rd Alford MA 01266

Sarah Bousquet 294 Park St, GB 01230

Chris Bousquet 294 PARK ST GB 01230

Martin Weinstein WEINSTEIN 279 N. Plain Rd 0123

184 Main Rd. Tyringham MA 01264

24 Glendale Rd W. Stockbridge MA 01264

Transitions Mtg Rd 01245

Art Durrell 17 Ed. E. Rd

Diana Gutierrez 123 Front St Housatonic MA 01236

Marilyn Bisiewicz 396 N. Plain Rd. Housatonic MA 01236

DAVID MINTZ 255 Long Pond Rd. Great Barrington, MA 01230

Sara Sutton 170 Green River Rd. Alford Ma. 01230

S. Wolf 104 Beartown Mtn Rd MA 01245

Karen Bennett 190 Dublin Middle Rd Stockbridge 01262

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[illegible]	Great Barrington
John Kellehen	Great Barrington
Laura Fetherolf	Lenox, MA
Dawn C. Babiere	Housatonic, MA
Jay Amider	Great Barrington MA.
Timothy Fuller	Stockbridge, MA
Anthony Ogalito	Great Barrington, MA
Dana Ogalito	St. Barrington, MA
[illegible] GEORGE G. BAER	HOUSATONIC, MA
Kelly Bair	Housatonic, Ma
Julia M. Reynolds	Egremont, ma
Cheryl Reynolds	Egremont, MA
Kathleen Potoski	New Marlborough, MA
John Potoski	New Marlborough, Ma
MICKEY FRIEDMAN	GREAT BARRINGTON MA 01230
Amy J Sachsana	South Egremont MA

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	Brian Sadhana	Gt. Barr. Ma.
	Jaclyn Stevenson	Lenox, mass
	DEIDRE CONSOLATI	Lee, MA
Robert Toppur		Great Barr MA
Eileen W. Mooney	Housatonic	
	LINDA MILLER	Housatonic
	ARNOLD MILLER	HOUSATONIC
Nina Evans	NINA EVANS	Gt. Barrington, MA
	ROBERT BOURQUARD	HOUSATONIC
	CATHLEEN BOURQUARD	HOUSATONIC
Diane Homeyer	Diane Homeyer	Gt. Barrington
Lisa Hunt	Lisa Hunt	Housatonic
Leslie Meltzer	Leslie Meltzer	Housatonic, MA
Margaret Asseff	Margaret Asseff	Housatonic, MA
Kathy Timpane	Kathy Timpane	Lenoxdale, MA
Chris Timpane	CHRIS TIMPANE	LENOXDALE, MA

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Nicholas F. Madorff Nicholas F. Madorff Stockbridge MA

John Coty Jr. JOHN COTY JR LEE MA

Valerie Andersen, 16 Dan, Pittsfield, MA

Jim LARKIN 174 WEST RD. SHEFFIELD MA

MARE PALUMBO 322 PARK ST. GREAT BARRINGTON, MA

LOUISE HILLMAN POBOX 8 GREAT BARRINGTON, MA

John Reynolds PO Box 465 Great Barrington, MA

Lucinda & Ryan Caruso 370 N Plain Rd, Housatonic, MA

OLGA WEISS, 180 WEST ST., LENOX, MA 01240

Christine Casarsa 25 Old Village Rd, Alford, MA 01230

Steve Shapiro 402 Little Quarry Rockville MD 20878

ALISON DIXON 98 Wade Inn Rd, Becket MA 01223

James Stark 1099 Main St. Housatonic MA 01236

Laura Dubosky 19A Cherry Hill Rd Stockbridge, MA 01262

ALAN SILVERSTEIN 19A CHERRY HILL RD STOCKBRIDGE MA 01262

ANN JON, 688 JACOB'S LADDER RD. BECKET, MA 01223

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Phyllis H Skalla Housatonic

Janette Gavroy

Paul Delaurier

Kathleen Cardella W. Stockbridge

Karen Schroeder

Hny S. Kirkdoffer Cleveland Ma.

Thomas Melville Gt. Barrington, Ma.

Catherine Melville Gt. Barrington MA

Anna L Stanton Gt. Barrington MA

Toby Stanton GB Ma

Peter Sleacha, Housatonic, MA

Marcie Lowdrecker, Tyringham, MA

Johnna Sass Tyringham MA

Margaret DeSanto Great Barrington, MA

Natalie A. Glazner Pittsfield, MA

Robert Morgan Gt. Barr.

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Luke Prygma 301 Monument Valley Rd 01230

Alexandra Phillips 301 Monument Valley Rd 01230

Dennis Rogan PO Box 251, Sandisfield, MA

Shep Evans PO Box 155 Stockbridge, MA 01262

Sima Abramson 2 Bernard Gibbons Dr. Apt 111 Gt. Barrington, MA 01230

Penelope Ford POB 746, Housatonic, MA 01236

Judy Herkimer, Heal P.O. Box 21, Cornwall Bridge, CT 06754

Lynn Fowler, HRC 77 Allyndale Rd Canaan, CT 06018

Tim Wright GRP 6 Lois Ave Pittsfield MA 01201

Ruth Wheeler 152 Roaring Brook Rd Lenox MA 01240

Harvey Hoy 214 South ST HOUSATONIC, 01236

Louise Siegel 214 South St. Housatonic 01236

Marie Raftery 40 East St. Stockbridge MA 01262

Charles P. Ciantarini 130 HARRYD ST. PITTSFIELD, MA 01201

Potoski 653 Hartwell-NMB Rd New Marlboro Ma

Alexandra Hedding 98 Silver St. Lee, MA 01238

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Kathryn Jenen, Box 69, Housatonic MA 01236

Nicholas Thulbo, Box 207, S. Egremont MA 01258

[illegible] Box [illegible] Lenox, MA 01240

Michael MacDonald 100 Gould Rd Monterey, MA 01245

From: Svirsky.Susan@epamail.epa.gov
Sent: Monday, January 31, 2011 2:54 PM
To: Palmieri, Linda
Subject: Fw: CMS comments HRI
Attachments: The CMS executive summary starts out by saying that.doc

-----Forwarded by Susan Svirsky/R1/USEPA/US on 01/31/2011 02:54PM -----

To: Susan Svirsky/R1/USEPA/US@EPA
From: Tim Gray <housriverkeeper@gmail.com>
Date: 01/30/2011 04:20PM
Subject: CMS comments HRI

(See attached file: The CMS executive summary starts out by saying that.doc)

Dear Susan

Please accept our comments on the revised CMS. Thanksyou for the opportunity to participate.

Tim Gray

--
Tim Gray
Housatonic Riverkeeper
Executive Director - Housatonic River Initiative
P.O. Box 321
Lenoxdale,Massachsetts 01242
413-446-2520
housatonicriver.org

CMS Executive Summary

In 2004 Americanrivers, one of the largest and most respected river organizations called the Housatonic River one of the top ten endangered rivers in America. **http://act.americanrivers.org/site/DocServer/housatonic.pdf?docID=482**

Summary

Irresponsible industrial activity has left the floodplain and river bottom of the Housatonic River contaminated with some of the highest levels of polychlorinated biphenyls (PCBs) in the nation. People who consume contaminated fish and wildlife from along the river are at elevated risk for cancer, birth defects, and immune problems. Unless the Environmental Protection Agency (EPA) orders a cleanup of the remaining contamination, General Electric Company's (GE) toxic legacy in the Housatonic Will remain a major health hazard for generations to come.

HRI comments

The CMS executive summary starts out by saying that "the Rest of River is a flourishing ecosystem". In fact the primary study area of Rest of River is one on the most highly contaminated PCB rivers in the world. Both the Ecological Risk Assessment and the Human Health Risk assessment present a peer reviewed scientific picture of how PCB's are actually affecting the ecosystem. GE states that "less is really more". They are right. Less is really leaving significant more PCBs ensuring that the Housatonic River will stay contaminated hundreds of years into the future.

GE states that all approaches will adequately meet EPA standards for human health. EPA has not stated this publicly anywhere. We are waiting for an EPA ruling as this statement is only a projection by GE. GE has stated much misleading information through the years.

They also state that "none of the approaches will allow people to eat those fish without restriction". Everything in this report are clean up options designed by GE. The goal of the Clean Water Act is for a swimmable, fishable river. The EPA must not lose sight of this goal. It is GE that has not presented an approach that will not allow people to eat those fish without restriction. If at present an approach cannot be found to achieve fish consumption with out restriction, GE must continue to be liable until they can meet this goal. They should not be relieved of their responsibility to achieve a fishable, swimmable river or ever granted an impracticality waiver as they discuss in the CMS.

In all of GE's assumptions they ignore hundreds of studies on the impact of PCB's to human health and wildlife. In 1977 use of PCBs were banned. The published peer reviewed science at that point in time led the United States Government to make this decision. Since then the scientific peer reviewed evidence has only grown about the

human and ecological effects PCBs cause. (See the list included from our advisor Dr. Peter DeFur for just the past two years!)

GE states that “observations give us every reason to believe that the animal and plant populations of the Rest of River will continue to do just fine even if no further clean- up occurs”. This statement totally ignores information presented in the peer reviewed Ecological Risk Assessment for Rest of River.

Findings from the GE/EPA scientific peer reviewed Housatonic Ecological Risk Assessment

-50% of mink young died within 6 weeks when fed a diet of fish with only 4 parts per million PCB harvested from the Housatonic River. Many Housatonic river fish have higher levels. Jaw lesions were observed in the other developing young that did survive, which results n eventual loss of teeth, leading to anorexia and eventual death.

Benthic invertebrate mortality and impaired development

-Reduced survival of larval fish and various deformities including swim bladders that were malformed or formed out side the body cavity

-Frogs with abnormal egg masses, malformations, impacts to metamorphosis and sex changes

PCBs are one of the most prevalent toxic chemicals in the world’s food chain. GE ignores this. This is why most countries in the world are cleaning them up. Polar bears, whales, ocean fish, other wildlife and humans are all being affected. The striped bass and shad fishing industry were destroyed because of PCBs traveling down the Hudson and Housatonic River into Long Island Sound.

Signs posted by the Mass Department of Public Health state: DO NOT EAT FISH, FROGS, TURTLES, WOOD DUCKS, OR MALLARD DUCKS FROM THIS RIVER. We look to public health agencies to determine if PCB’s are toxic not General Electric.

From **an EPA letter to the community prior to the first two mile remediation**.: "Fish collected in the river had PCB concentrations of up to 206 parts per million, among the highest levels ever found in the United States and 100 times higher than the limits set by the U.S. Food and Drug Administration. "91 of 93 sediment samples taken in the Upper Reach of the river showed the presence of PCBs”. And then, in spite of GE's claim to the contrary, former EPA administrator Devillars goes on to emphasize that "it is the EPA's concern for citizens' health that is driving the agency's actions to clean up the heavily contaminated 2-mile section of the Housatonic” We suggest the same implications exist for “rest of river”.

An EPA fact sheet contradicts GE's claim that "people do not get PCBs in their blood from soil," and directly states: "There are three primary means which people can be exposed to PCB contamination in and around the Housatonic River: • eating fish from the river. • Children accidentally ingesting PCBs, for example by sticking hands covered with contaminated soils or sediments in their mouths. • Skin contacting contaminated soils and sediments long enough to absorb contamination.

GE states “there is no question that the more aggressive remedial alternatives under consideration will permanently damage the ecosystem”. It is GE who has damaged the ecosystem of the Housatonic and many other waters throughout the country. GE implies that because the river is visually beautiful that the PCBs have no impact. If GE didn’t dump over a million and a half pounds of PCBs into the ecosystem of the river the remedial alternatives would not be needed.

GE tries to make the case for monitored natural recovery (MNR). They argued this on the Hudson River for many years only to find out that a clean up was really needed. EPA is making GE clean their PCBs in the Hudson. We know of no river that has recovered naturally over time from massive PCB contamination. To strengthen their case for MNR they cite source control at the GE facility and state that inputs are being corrected. If fact clean up at several upstream GE sites will not be completed for a number of years. The General Electric NPDES permit shows PCBs are entering the river during storm events. Simple new storm drains that have oil filtering technology could eliminate this input but General Electric has not addressed this problem. CCC members have discussed this with GE and have been ignored.

GE cites two bodies of water where MNR is the clean up options. These sites are very different than the Housatonic .These sites are using EMNR or Enhanced Monitored Natural Recovery. This is different as EMNR uses other remediation strategies in conjunction with MNR .Then GE states that “long-term monitoring data” does not exist for these sites. How can they use this example of success without long term data?

The CMS ignores the Connecticut PCB problem even though fish advisories have existed since the 1980’s. At the CMS public meeting GE stated that under their clean up plans it might be 35 years before advisories might be minimized at Bulls Bridge. This show’s all of GE’s proposals are not adequate.

The CMS does not take into account for worldwide atmospheric transport or inhalation of PCBs as pathways of exposure. Both of these are represented .in peer reviewed scientific literature. They should be accounted for in assessing existing risk.

We have included some findings from a peer reviewed study of New York State residents who live near hazardous waste sites.

Dr. Carpenter's new studies show we are all at risk from breathing in PCBs. New York State hospitals create a registry of the diseases their patients suffer from. There is also a comprehensive registry of the approximately 900 contaminated waste sites in New York State. Dr. Carpenter's team correlated these databases to see whether there were any links between those areas where you could find persistent organic pollutants like PCBs, and the ailments people were experiencing.

Dr. Carpenter said: "We found that living next to the Hudson River … suggests the chance of having a heart attack is 39 fold greater than if you live in a zip code that doesn't abut a hazardous waste site. This is the highest risk ratio we have ever found for any disease. It's highly statistically significant … (and) it does say that living next to a contaminated river increases your risk of a heart attack."

His Hudson River data found a 36 fold elevated risk of diabetes as compared to people who don't live near a contaminated site. "(And) the levels you have in air in most of the sites where it has been measured are not terribly high. But I think our results suggest that you don't need high levels in order to have adverse health effects.

NO DUMPS - USE TECNOLOGY

GE argues that building three land based PCB dumps are the best way to handle the chemicals. South County towns depend on tourism. All of the towns have worked hard to make them attractive, good places for families to live and stellar examples of New England tourist destinations. Toxic hazardous waste dumps will be dangerous to residents, effect property values, and be terrible for our tourism industry.

They also discuss using confined disposal facilities. This would dispose of the PCBs in a dump created in a backwater pond in the river! Clean the river to put them back in the river? After all of GE's recent public relation campaigns telling Berkshire County residents that the river is a fragile ecosystem full of flourishing wildlife they insult our intelligence with a proposal such as this!

The EPA is requiring GE to send their toxic waste from the Hudson River to an already existing landfill which was built to accept waste from contaminated sites around the USA. We believe that Berkshire County deserves the same decision **at the very least.**

Here's some of what other EPA scientists have said about landfills in the past:
"There is good theoretical and empirical evidence that the hazardous constituents that are placed in land disposal facilities very likely will migrate from the facility into the broader environment. This may occur several years, even many decades, after placement of the waste in the facility, but data and scientific prediction indicate that, in most cases, even with the application of best available land disposal technology, it will occur eventually." (Federal Register, Feb. 5, 1981, pg. 11128)

"Manmade permeable materials that might be used for liners or covers (e.g., membrane liners or other materials) are subject to eventual deterioration, and although this might not occur for 10, 20 or more years, it eventually occurs and, when it does, leach ate will migrate out of the facility." (pg. 11128)

"A liner is a barrier technology that prevents or greatly restricts migration of liquids into the ground. No liner, however, can keep all liquids into the ground. Eventually liners will either degrade, tear, or crack and will allow liquids to migrate out of the unit." (Federal Register, July 26. 1982, pg. 32284)

"Some have argued that liners are devices that provide a perpetual seal against any migration from a waste management unit. EPA has concluded that the more reasonable assumption, based on what is known about the pressures placed on liners over time, is that any liner will begin to leak eventually." (pgs. 32284-32285)

"Since disposing of hazardous wastes in or on the land inevitably results in the release of hazardous constituents to the environment at some time, any land disposal facility creates some risk." Federal Register, May 26, 1981, pg. 28315)

"The longer one wishes to contain waste, the more difficult the task becomes. Synthetic liners and caps will degrade; soil liners and caps may erode and crack ... EPA is not aware of any field data showing successful long-term containment of waste at facilities which have not been maintained over time." (pg. 28324) "First, even the best liner and leachate collection will ultimately fail due to natural deterioration, and recent improvements in MSWLF containment technologies suggest that releases may be delayed by many decades at some landfills. For this reason, the Agency is concerned that while corrective action may have already been triggered at many facilities, 30 years may be insufficient to detect releases at other landfills." EPA, Federal Register, August 30, 1988, Vol., 53, No. 168.

EPA- Don’t let GE dump again

From a 1999 HRI newsletter:

When it's time to clean the rest of the river, the Hill 78/71 dumps will be filled. If I were GE, I'd argue that since the EPA agreed to a dump in Pittsfield, they believe it's safe, they know it works, so let's landfill down in South County. And I'd refuse once more to treat any river contamination. GE will argue it's unreasonable to ask us to spend ten times the money to treat the river wastes of Lenox, or Stockbridge, or Lenox Dale, or Great Barrington, or Sheffield, when for 1/10th the price we can landfill it. There's got to be a place to dump the stuff. You want the river cleaned, find us a place to put the PCBs!

So if you let them dump GE's poison near a school in Pittsfield, and you want your river cleaned, you better start looking for some large potential dumpsites down south. In keeping with the school motif, how about if the DEP and EPA put it across from Lenox High, or Monument Mountain, or maybe Searles School in Great Barrington? HOW BIG

A DUMP? Well here's GE's guess as of a few years ago. Excerpts from: Proposal for the preliminary Investigation of Corrective Measures for Housatonic River and Silver Lake Sediment, Prepared for GE by Canonie Environmental, March 1995

"As discussed in Section 1.5, the in-situ volumes of sediment in the study area containing PCB concentrations greater than 1 ppm, 10 ppm, and 50 ppm have been estimated to be as follows (in cubic yards):

```
Housatonic River, - GE to Woods Pond:
less than:
1 ppm  |  10 ppm  | 50 ppm
455,000 | 320,000 | 179,000

Woods Pond
200,000 | 95,000  | 58,000

Silver Lake
173,000 | 120,000 | 83,000
TOTALS:
828,000 | 535,000 | 320,000
```

(Page 3-75.)

"Based on these estimates, a range of sediment volumes that might need to be dewatered and disposed of has been determined, along with the approximate size of the dewatering/disposal cells that would be required for these volumes (based on a 5-foot cell depth and a 10-foot berm), The range is as follows:

```
Volume   |    Dimen. of Cell    |  Acres
100,000 cy | 735 ft W x 735 ft L | 12
300,000 cy | 1,275 ft W x 1,275 ft L | 37
500,000 cy | 1,650 ft W x 1,650 ft L | 62
1,000,000 cy | 2,350 ft W x 2,350 ft L | 127
Page 3-76
```

So the way it works now is: the cleaner you want your river, the bigger the dump GE will build. 12 acres, 37 acres, 62 acres. Or if you want the river cleaned to 1 ppm PCBs, how about 127 acres?

LONG-TERM COSTS

What about the risks of failure in the dump system? EPA scientists have acknowledged those risks. How long will GE be required to monitor these dumps? Are cost factors of monitoring, maintenance, and failure weighed against the cost of using technology? There is always risk. When GE has the money to remove and treat its PCB's, why should Berkshire County citizens have to live with the risk of several dump sites?

The better solution would be to employ one of the new technologies to destroy the PCBs. Several methods are mentioned in the CMS such as thermal desorbtion and Biogenesis which should be considered, We have had many discussions with a company called BIOTECH that has success using a microbial method. This company seems to have the most promising technology for both the floodplain soils and dewatered sediments. They have accomplished clean ups in the United States and certified by the California EPA. Recently they made an impressive presentation to Berkshire County citizens.

We offer this explanation from their website:

Factor is a proprietary soil amendment consisting of synthesized protein biologically similar to indigenous bacteria species living within the soil. Every property requiring Factor treatment requires a bench study using soil from the representative site. The bench study is an exhaustive micro-biological and bio-chemical analysis of a representative soil sample from a perspective site in the BTR laboratory. The protein within the Factor will be similar to the protein originally destroyed by the chlorinated compounds beneath the site and added to the soil, thus genetically crippling the indigenous bacteria from metabolizing the chlorinated hydrocarbons (consuming the chlorinated hydrocarbons and bio-chemically breaking down the pesticides into inert substances). Factor restores the indigenous bacteria back to their near original condition, enabling the bacteria to metabolize the pesticides into inert substances (chloride salt, carbon dioxide and water) and bio-remediate the site. The indigenous bacteria present at this site, which are responsible for breaking-down the chlorinated hydrocarbons include *Xanthomonas* and *Actinomycetes* and are not pathogenic in the environment. The bacteria colonies terminate and/or are reduced to background levels after irrigation is ceased.

BTR Factor is a California EPA approved bio-remedial technology vetted through the California Department of Toxic Substances and Control (DTSC) and the California Regional Water Quality Control Board – Region 2 (Water Board). Our Factor was successful in bio-remediating elevated concentrations of toxaphene (up to 6.2 parts per million), dieldrin (up to 0.9 parts per million), DDT and DDE (up to 9 parts per million) and PCBs (up to 156 parts per million) to concentrations below State action levels within California. Each property was formerly closed by either the DTSC or the Water Board for *unrestricted site use.* Factor is successful in bio-remediating chlorinated hydrocarbons, including PCBs, organochloride pesticides and volatile organic compounds. Factor is a proprietary soil amendment consisting of synthesized protein biologically similar to indigenous bacteria species living within the soil. Every property requiring Factor treatment requires a bench study using soil from the representative site. The bench study is an exhaustive micro-biological and bio-chemical analysis of a representative soil sample from a perspective site in the BTR laboratory. The protein within the Factor will be similar to the protein originally destroyed by the chlorinated compounds beneath the site and added to the soil, thus genetically crippling the indigenous bacteria from metabolizing the chlorinated hydrocarbons (consuming the chlorinated hydrocarbons and bio-chemically breaking down the pesticides into inert substances). Factor restores the indigenous bacteria back to their near original condition,

enabling the bacteria to metabolize the pesticides into inert substances (chloride salt, carbon dioxide and water) and bio-remediate the site. The indigenous bacteria present at this site, which are responsible for breaking-down the chlorinated hydrocarbons include *Xanthomonas* and *Actinomycetes* and are not pathogenic in the environment. The bacteria colonies terminate and/or are reduced to background levels after irrigation is ceased.

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Clean Up Projections are used to discourage the clean up
The CMS also gives projections for clean up time that are meant to discourage the public. The options range up to 50 years. If GE was building the tallest building in the world their engineers would have it built in a few years. There is no explanation from GE why it would take 50 years. The more contractors they hire the faster it would be complete.

Truck Traffic is also used to discourage the clean up
They also use truck traffic as a way to discourage the public from supporting a clean up. As already mentioned PCBs from the Hudson River are being taken by railroad to a hazardous waste landfill in Texas. The Housatonic River has the railroad line along the proposed clean up areas. GE paints the picture of thousands of trucks going through our communities. EPA should make GE treat the PCBs at the clean up staging area instead of driving them through our towns to their toxic dumps.

A **search on PCB toxicology during the last two years provides an abundance of papers on the toxic effects of PCBs, indicated here:**

Asiliana, Assan, Reza Gholamnia, Abbass Rezaee, Ahmad Joneidi, Ali Khavanin, and Elmira Darabi. 2009. "Photolysis of Pcbs (Oil Transformer) by Uvc in Presence of Solvent and Oxidizing Agents." *American-Eurasian Journal of Sustainable Agriculture* 3, no. 3: 393-398.
Axelrad, Daniel A., Stephanie Goodman, and Tracey J. Woodruff. 2009. "PCB body burdens in US women of childbearing age 2001–2002: An evaluation of alternate summary metrics of NHANES data." *Environmental Research* 109, no. 4: 368-378.

Birnbaum, L S, and D S Staskal-Wikoff. 2010. "5th International PCB Workshop--summary and implications." *Environment International* 36, no. 8: 814-818.
Bonfanti, Patrizia, Anita Colombo, Sara Villa, Francesca Comelli, Barbara Costa, and Angela Santagostino. 2009. "The effects of accumulation of an environmentally relevant polychlorinated biphenyl mixture on cytochrome P450 and P-glycoprotein expressions in fetuses and pregnant rats." *Chemosphere* 75, no. 5: 572-579.
Burns, Jane S., Paige L. Williams, Oleg Sergeyev, Susan Korrick, Mary M. Lee, Boris Revich, Larisa Altshul, et al. 2009. "Predictors of Serum Dioxins and PCBs among Peripubertal Russian Boys." *Environmental Health Perspectives* 117, no. 10: 1593-1599.
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Choi, Yean Jung, Melissa J. Seelbach, Hong Pu, Sung Yong Eum, Lei Chen, Bei Zhang, Bernhard Hennig, and Michal Toborek. 2010. "Polychlorinated Biphenyls Disrupt Intestinal Integrity via NADPH Oxidase-Induced Alterations of Tight Junction Protein Expression." *Environmental Health Perspectives* 118, no. 7: 976-981.
Colt, Joanne S, Nathaniel Rothman, Richard K Severson, Patricia Hartge, James R Cerhan, Nilanjan Chatterjee, Wendy Cozen, et al. 2009. "Organochlorine exposure, immune gene variation, and risk of non-Hodgkin lymphoma." *Blood* 113, no. 9: 1899-1905.
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The Housatonic River Initiative believes that EPA should reject all of GE's proposals and determine clean up plans that will reach the goals of the Clean Water Act and acheive a fishable, swimmable river in the future.

UNITED STATES OF AMERICA
STATE OF CONNECTICUT
COMMONWEALTH OF MASSACHUSETTS

CIVIL ACTIONS Nos. 99-30225; 99-30226; 99-30227-MAP

Plaintiffs, THE HOUSATONIC RIVER INITIATIVE Plaintiff Intervenor,

GENERAL ELECTRIC COMPANY, Defendant.

We remind EPA of their settlement agreement to HRI and citizens of Berkshire County.

At a press conference at the Pittsfield courthouse, EPA Regional Administrator Mindy Luber stated "the agreement includes, among other things, EPA's commitment to identify and potentially test new and innovative technologies".

On behalf of the Housatonic of the Housatonic River Initiative,

Timothy Gray, Director Housatonic River Initiative, Housatonic Riverkeeper

From: Jim Stark/Kate Hold
To: Susan Svirsky/R1/USEPA/US@EPA

Date: Thursday, December 16, 2010 12:34AM
Subject: public comments re GE/ Rest of River

History: This message has been forwarded.

Dear Ms. Svirsky:

Housatonic the Beautiful Fund, Inc. (HTB), a public charity based in Housatonic, Mass., has the following comments in response to GE's October, 2010 CMB Report:

HTB is opposed to disposal of sediment near Rising Pond, or anywhere within the watershed,

HTB is in favor of using alternative technologies to treat PCB-laden sediment, and

HTB is generally in favor of a comprehensive clean-up of the river.

Elements of the report are misleading and/or illogical, e.g., calculating sediment by volume, while calculating dump truck trips based on weight.

The report states that the average depth of Rising Pond is seven feet, but neglects to mention that the dam, owned by GE, can be used to bring the depths down.

If it is true, as stated in the report, that the average PCB content in Rising Pond is .7mg per kg., is this above or below the level the EPA is using as a target?

Finally, we think it is disingenuous for the EPA to claim it is encouraging public participation while not providing assistance to the public in each affected town in interpreting and understanding this massive and arcane document.

Yours truly,

Jim Stark , treasurer, Housatonic the Beautiful Fund, Inc.

Housatonic, MA 01236
E-Mail:

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19 Furnace Bank Road
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Wassaic, NY 12592
845-789-1381

January 31, 2011

RECEIVED
FEB 01 2011
By

Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman St., Pittsfield, MA 01201

Dear Susan:

Since its founding 70 years ago, the Housatonic Valley Association (HVA) has been dedicated solely to protecting the environmental health of the Housatonic River and its 2,000 square mile watershed. HVA's mission is to save the natural character and health of our communities by protecting land and water throughout the watershed, from the Berkshires through western Connecticut to Long Island Sound. Since the mid -1970s, HVA has been involved with Housatonic River PCB contamination and remediation issues. We have participated in the many aspects of these issues throughout the years, including the run-up to the Consent Decree and the design and implementation of restoration projects funded with Natural Resource Damages moneys. We have been active members of the CCC since 1999, and we maintain a document repository at our Cornwall Bridge, Connecticut office. Our comments below regarding the Revised Corrective Measures Study, as reported by General Electric (GE), state the guiding principals, preferred treatment alternatives and additional concerns of our organization.

I. Guiding Principals

While reviewing the revised remediation alternatives as presented by GE, we developed a set of guiding principals as to what we would like to see as the end result of remediation. These are: **(1)** That remediation should restore the river to a "fishable[1]" and "swimable[2]" water body. **(2)** Cleanup should be to the best ability of technology regardless of time, money and temporary aesthetic damage. A careful and thorough cleanup may require sacrificing short-term aesthetics and use of the area in order to protect this and future generations (human and wildlife) by providing them with a clean, safe and naturally beautiful river and riparian landscape. **(3)** Post-remediation PCB concentrations should meet the lower range of IMPG concentrations. **(4)** The river should be able to flow and move as rivers naturally do. Therefore, enough contaminated bank and flood plain material must be removed and replaced to allow some meandering, rather than leaving contaminated material behind armored banks that prevent natural movement. **(5)** The risk of recontamination should be minimized.

II. Recommendations

Upon reviewing the RCMS document, we have determined that the following alternatives will satisfy our overarching goals. However, we are open to any alternatives that meet our guiding principals.

---

[1] We view "fishable" as a habitat able to consistently produce and support healthy fish consumable at a frequency of at least 15 times per year.

[2] We see "swimable" as a water column and river bed that can support primary contact recreation by humans.

1) In reaches 5 through 8, we prefer sediment options SED 5 and 6. These provide quicker remediation to the area to satisfy a 10^{-6} HH risk, as well as achieving a swimable and fishable river with reduced risk of recontamination. Other alternatives that include much Monitored Natural Recovery (MNR) and Thin-Layer Capping (TLC) are not aggressive enough to achieve our guiding principles.

2) For remediation in the Flood Plain, we believe alternative FP7 should be the preferred technique as it brings the HH risk to 10^{-6} and achieves the lower bound IMPGs. When access roadways are built, we would also like to see that the areas each roadway accesses are fully remediated and restored. Some alternatives only remove the most highly contaminated material, leaving behind a large amount of less contaminated soil. It would make more sense to remediate all contaminated material once the access roads are built and the machines are in place.

3) For the treatment and disposal of contaminated material, in the absence of an effective remedial technology at the present, we support the use of an upland disposal landfill located outside of the 500 year flood plain if it is specified as a truly temporary solution, with further remediation of stored material mandated to be done as proven technology becomes available. Transport of this material to land fill(s) could be done via the railroad. This railroad option was discounted in years past due to the cost of retrofitting the existing infrastructure. However, the increased truck traffic on local roads will increase the road maintenance budgets of the surrounding towns, and there is renewed regional and national interest in redeveloping rail transport as a more energy efficient alternative to trucking.

4) We also request that EPA consider the following:

a) Make sure that the solution chosen accounts for both global warming and regional increases in impervious surfaces that may affect flow velocities and flooding patterns.

b) Factor in the real potential for dam removal in the future. The study was conducted under the assumption that dams such as Woods Pond and Rising Pond would remain in place forever. However, given the environmental movement toward dam removal and the potential for a breech if improperly maintained, we ask that the remediation planning take into account the recontamination risks associated with a possible dam removal or breech. Also, in the event that any downstream dams in Massachusetts or Connecticut require maintenance that moves in-stream sediment, we ask that GE be required to test the sediment and remove PCB contaminated material in advance.

c) Use a phased approach to the remediation plan to allow newer and better technologies to be incorporated as they are discovered. The remediation should be held to a strict schedule, but with built-in regular periodic reevaluations as more advanced technologies are found, especially if they will limit the amount of destruction to the site while still removing or destroying PCBs.

Thank you for this opportunity to comment.

Sincerely yours,

Shepley Evans
Director, Water Protection

Lynn Werner
Executive Director

Dennis Regan
Massachusetts Director

IS183
art school

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January 27, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

As a concerned citizen and on behalf of IS183 Art School I'm writing to provide comment on General Electric's Revised Corrective Measures Study (CMS) as you consider plans to clean the "Rest of the Housatonic River."

The Berkshire's have long been known for the natural beauty of the region and the many cultural attractions located here. Today the Berkshire economy is largely driven by the arts and culture and our celebration of our natural surroundings. The Housatonic River has played and will continue to play a vital role in this economy.

As a regional art school, our pupils come from all walks of life and share a passion for painting, sculpture and other art forms that bring them outdoors including along the Housatonic River. Extensive dredging that would destroy the river habitat would be a blow to our school and students and have a negative impact on our school and the Berkshire economy in general.

It is the opinion of IS183 that using a targeted low impact approach to remove PCBs will protect our community members' health, make the river safer for recreation, and preserve the natural habitat, while recognizing that the county's economic vitality hinges on our ability to preserve the river's natural beauty and diversity.

As an active member of our cultural community, I implore the EPA to recommend a targeted low-impact solution, which would have the least impact on the economic and environmental needs of the Berkshires.

Sincerely,

Hope Sullivan, Director

RECEIVED
JAN 31 2011
By

Kimball Farms

January 28, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

I am writing to offer comment on the Phase II clean up of the Housatonic River running from Pomeroy Avenue in Pittsfield to Woods Pond in Lenoxdale.

On behalf of Kimball Farms Lifecare Retirement Community, I strongly urge you to consider a low-impact clean up solution, which does not include extensive dredging, but does address the goal of meeting human health standards. This portion of the River is very different from the area addressed in Phase I, which ran primarily through an industrial district. This portion flows through a natural, forested and wetlands area filled with wildlife and recreational activities enjoyed by residents and visitors alike for hundreds of years.

A radical dredging effort, similar to that undertaken by GE previously, could negatively affect Kimball Farms Lifecare Retirement Community by having our town of Lenox and surrounding areas gain a negative reputation of having severe environmental problems, thus impacting our marketing, occupancy and financial stability. This major dredging effort would also require staging areas and dewatering facilities to be built through these forested and wetlands areas causing widespread, extensive damage. We at Kimball Farms Lifecare Retirement Community believe that a low-impact solution will balance the economic needs of our residents and the environmental needs of the wildlife, while meeting the EPAs human health criteria.

As the Executive Director of Kimball Farms Lifecare Retirement Community, I ask that the EPA take a cautious approach to this very important matter of PCB removal. I strongly urge you to approve a method, which would have the least negative impact on the Berkshire County economy and environment.

Thank you for the opportunity to comment on such an important decision. I look forward to finding a solution that balances the needs of our community as determined by the EPA.

Sincerely,

Albert A. Ingegni III

Albert A. Ingegni, III
Executive Director

235 Walker Street, Lenox, Massachusetts 01240 (413) 637-7000
(800) 283-0061

RECEIVED
JAN 31 2011
By

From: "John Philpott"
To: Jim Murphy/R1/USEPA/US@EPA, Susan Svirsky/R1/USEPA/US@EPA

Date: Thursday, December 09, 2010 08:25PM
Subject: Columbia Dam Lee Ma

History: This message has been forwarded.

Good Evening Folks, I'm attaching a letter concerning the Columbia Dam on the Housatonic River in Lee, Massachusetts. I'm president of the Lee Community Development Corporation and we feel that the rehabilitant of the Columbia Mill to provides jobs to replace the lost of jobs from the papermill shutdown is essential economic well being of our small town. I appreciate the enormous amount of the information that you folks have to go thru on the river clean-up. I would appreciate it if we can make sure that the issue of the Columbia Dam in Lee is part of the discussions as you move forward to a solution of the river clean-up. Thank you. John Philpott

Attachments:

JWP GE Columbia Dam.pdf

From: "Richard Vinette"
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: <Linda.Palmieri@WestonSolutions.com>

Date: Wednesday, December 15, 2010 03:07PM
Subject: Comment - GE Corrective Measures

History: This message has been forwarded.

RE: GE Proposed Rest of River Corrective Measures

Please note for the record that the Lee Community Development Corporation vigorously opposes any PCB landfill or containment area anywhere in Berkshire County and urges exploration of alternative methods of remediation and removal rather than dredging.

The Lee CDC has also, under separate cover, sent a letter to be part of the record which includes specific concerns about the need for GE to address significant problems posed by the status of the Columbia Mill Dam in Lee.

Thank you,

Richard H. Vinette, Jr.

Executive Director, Lee Community Development Corporation

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Lee Community Development Corporation

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Ms. Susan Svirsky
Mr. Jim Murphy
EPA Rest of River Project Manager
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10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky and Mr. Murphy:

The Lee Community Development Corporation has been in existence for 25 years helping the Town of Lee to improve the Community and the viability of its local economy. In the effort to generate much needed economic development the Lee Community Development Corporation wishes to go on record to indicate that the General Electric Company's Revised Corrective Measures Study should include a plan to deal with the Columba Mill Dam in Lee, Massachusetts. The local economy has suffered the loss of four operating paper mills at a cost of over 300 manufacturing jobs. In attempting to reuse the assets that have been shut down, one significant impediment is the problem of the dam at the Schweitzer Mauduit Columbia Mill. This dam is in poor repair and a number of agencies such as the American Rivers, Housatonic Valley Association and Commonwealth of Massachusetts Division of Ecological Restoration have indicated that they would be interested in working to breach the dam and restore a portion of the Housatonic River to a cold water fishery. Schweitzer Mauduit would also work with these agencies, but the issue of the PCB contamination around the dam creates so much potential liability and uncertainty that no practical plan can be implemented. Schweitzer has tried to sell its assets for over two years but to date, no developer or potential manufacturer has wanted to deal with the Columbia Dam or its environmental problems therefore the Columbia Mill stands idle and potential jobs have not been created.

I believe that in the past General Electric has provided funds to fix Wood Pond Dam and may have acquired the Rising Mill dam which was an important fact in the rehabilitation of the Rising Paper Mill in Housatonic. I respectfully ask that in dealing with the Housatonic River Clean up, that GE's corrective measures for the cleanup of the Housatonic River take into account the significant problems associated with the Columbia Dam in Lee. If GE does not clean up the PCB contamination behind the Columbia Dam, then I strongly urge the Company to assume the control of the Dam. The CDC stands ready to assist in any such efforts to enhance the economic viability of the Town of Lee and will help to pursue courses of action leading to satisfactory solution.

Respectfully Submitted,

John W Philpott

John W Philpott, President
Lee Community Development Corporation

RECEIVED
DEC 13 2010
By

Legacy Bancorp

J. Williar Dunlaevy
Chairman &
Chief Executive Officer

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

January 28, 2011

Dear Ms. Svirsky:

I want to offer representative comment on General Electric's Revised Corrective Measures Study (CMS) submitted in October, which provides a variety of solutions for Phase II of the Housatonic River Clean Up. In addition to my business leadership responsibilities, I am a conservationist and outdoorsman. I frequently canoe and kayak on the Housatonic. I strongly believe that the Clean Up must be accomplished in a way that protects and preserves this beautiful waterway.

I urge you to consider a very low-impact clean up solution, which does not involve extensive dredging. While my preference would be the Monitored Natural Recovery option, I understand your goal of cleaning the River to meet specific human health standards.

It is important to understand that the Phase II portion of the River is very different from the area addressed in Phase I, which ran primarily through an industrial district. This portion, also known as The Rest of the River, flows through a beautiful forested and wetlands area, filled with wildlife and abound with recreational activities.

A radical dredging effort, similar to that undertaken by GE previously, would devastate the River, as well as have long-lasting negative impacts on both the Berkshire County economy and tourism industry. We believe that you can still achieve the results you desire with a low-impact solution that balances economic and environmental needs with human health criteria.

I respectfully ask that the EPA take a cautious approach to this very important matter of PCB removal. I strongly urge you to approve a method, which would have the least negative impact on the Berkshire County economy and environment. Thank you for the opportunity to comment on this important matter.

Sincerely,

J. Williar Dunlaevy

RECEIVED
JAN 31 2011
By

cc: Governor Deval Patrick; US Senator John Kerry; US Senator Scott Brown; Congressman John Olver; State Senator Benjamin Downing; State Representative Christopher Speranzo; State Representative Smitty Pignatelli; State Representative Paul Mark; State Representative Gailanne Cariddi

Legacy Financial Center, 99 North Street, PO Box 1148, Pittsfield, Massachusetts 01202 413-443-4421 fax: 413-442-8155

Legacy Banks®
Bank Smarter. Live Easier.

Patrick J. Sullivan
President & Chief Executive Officer

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

January 25, 2011

Dear Ms. Svirsky:

As the Chief Executive Officer of Legacy Banks, I am writing to offer formal comment on General Electric's Revised Corrective Measures Study (CMS) submitted in October outlining options for Phase II of the Housatonic River Clean Up.

In so doing, I strongly urge you to consider a low-impact clean up solution, which does not involve extensive dredging, but does address the goal of meeting human health standards as set by the EPA. This portion of the River, otherwise know as the *Rest of the River*, is very different from the area addressed in Phase I, which ran primarily through an industrial district. The Phase II portion of the river flows through a natural forested and wetlands area, filled with wildlife and recreational activities, which have been enjoyed by residents and visitors alike for hundreds of years.

A radical dredging effort, similar to that undertaken by GE previously, would last decades during which time thousands of trucks and construction equipment vehicles would travel through residential areas in southern Berkshire communities that rely on tourism for economic survival. This major effort would also require staging areas and dewatering facilities to be built through these forested and wetlands areas causing widespread, extensive damage. We at Legacy Banks, the second largest bank in Berkshire County, believe that a low-impact solution will balance the economic needs of our residents and the environmental needs of the wildlife, while meeting the EPAs human health criteria. Anything more would cause widespread long-term and in some cases permanent damage.

As a business leader, I respectfully ask that the EPA take a cautious approach to this very important matter of PCB removal. I strongly urge you to approve a method, which would have the least negative impact on the Berkshire County economy and environment.

RECEIVED
JAN 27 2011
By

Legacy Financial Center, 99 North Street, PO Box 1148, Pittsfield, Massachusetts 01202 413-443-4421 fax: 413-442-8155

Thank you for the opportunity to comment on such an important decision. I look forward to finding a solution to clean up the *Rest of the River* that balances the needs of our community with that of meeting human health standards as determined by the EPA.

Sincerely,

Patrick J. Sullivan

cc:
Governor Deval Patrick
US Senator John Kerry
US Senator Scott Brown
Congressman John Olver
State Senator Benjamin Downing
State Representative Christopher Speranzo
State Representative Smitty Pignatelli
State Representative Paul Mark
State Representative Gailanne Cariddi

Legacy Banks

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

January 26, 2011

Dear Ms. Svirsky:

I am writing to comment on General Electric's Revised Corrective Measures Study, which was submitted to the EPA for review in October.

I strongly urge you to consider a low-impact solution that does not involve extensive dredging of the entire 10-mile stretch of the *Rest of the River*. Unlike the first phase of this clean-up effort, which was largely located in an industrial district, the *Rest of the River* flows through a natural, forested and wetlands area filled with wildlife and recreational activities enjoyed by residents and visitors alike.

A radical dredging effort, similar to that undertaken by GE previously, would last a minimum of 10 years, during which time thousands of trucks and construction equipment vehicles would travel through residential areas in southern Berkshire communities that rely on tourism for economic survival. This major effort would also require staging areas and dewatering facilities to be built through these forested and wetlands areas causing widespread, extensive damage. Once complete, the dredging would forever change the natural landscape of the river and our communities, preventing residents from enjoying the area as they have for hundreds of years.

I urge the EPA to consider a low-impact solution to the clean-up effort that meets rigorous EPA human health standards, but protects the integrity of the river and the important role that it plays in the Berkshire County economy and quality of life.

Sincerely,

Lori Gazzillo
Vice President Community Relations

RECEIVED
JAN 27 2011
By

Legacy Financial Center, 99 North Street, PO Box 1148, Pittsfield, Massachusetts 01202-1148 413-443-4421

From: Susan Svirsky/R1/USEPA/US
To: svirsky.susan@epa.gov

Date: Tuesday, January 11, 2011 01:54PM
Subject: Fw: public comment

From: "Tom Ferguson"
To: Jim Murphy/R1/USEPA/US@EPA
Date: 11/17/2010 04:24 PM
Subject:

Jim Murphy

Over the past few years and certainly this past summer, the Lenox Sportsmen's Club board and its members have studied and reviewed a number of issues surrounding the remediation of the "rest of river" project with General Electric and the EPA as it directly affects our property and our membership. Our property abuts the "George Darey Wildlife Management Area" which borders the Housatonic River and Woods Pond.

On any given day, our members can hunt, fish, trap, hike, bird watch, kayak, canoe, cross country ski and snowshoe on or along the river right from our parking lot, and enjoy this diverse river corridor. Many people here in Berkshire County have experienced the sights and sounds of wildlife along the Housatonic River from our property, many of them for the first time. There are those that say we need to dredge the river, it's the only option to get a fishable, swimmable river. If the river is dredged to EPA requirements, and "cleaned" as some call it, of PCB's, the river will still have the PCB's in the riverbed and banks because the cleanup plans require the cleaning in removed soil and not necessarily in parts per million, similar to what was required in the first reach. This means that there will still have to be a moratorium on swimming and the eating of fish in the Housatonic River. So you destroy an environment to "clean" an environment that in the end, will not be.

The Lenox Sportsmen's Club is officially endorsing the Ecologically Sensitive Approach for the cleanup of the rest of river project. We recognize that there are areas of this section of river that need to be addressed with some remediation, but our members concerns are in step with the Berkshire County League of Sportsmen, let's not destroy this river to fix it.

Respectfully Submitted

Officers & Directors Tom Ferguson President

Lenox Sportsmen's Club, Inc.

254 New Lenox Rd

Lenox MA 01201

January 28, 2010

Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

On behalf of Mass Audubon, I submit the following comments on General Electric's (GE) *Revised Corrective Measures Study (CMS) Report for the Housatonic River Site, Rest of River*, October 2010. We appreciate these informal comment periods that have been provided by EPA.

Mass Audubon has a direct and substantial interest in the proposed cleanup both as one of the largest affected landowners within the Primary Study Area and as a conservation organization whose mission is protecting the nature of Massachusetts for people and for wildlife. Mass Audubon is one of the organizations that spearheaded the original nomination of the Upper Housatonic as an Area of Critical Environmental Concern, and we have a long-standing presence in the Southern Berkshires. Our 262-acre sanctuary, Canoe Meadows Wildlife Sanctuary, located within Reach 5A of the Housatonic River, includes more than ½ mile of frontage along the River, as well as floodplains and vernal pool habitats that are contaminated with PCBs. We submitted comments on the Corrective Measures Study in May 2008 and additional comments on GE's Response to EPA's Interim Comments in May 2009.

Mass Audubon continues to strongly support the remediation of the Housatonic River to reduce the human health and ecological risks associated with PCB contamination.

Mass Audubon continues to remain interested in more direct engagement regarding the plans for remediation in the portion of the river corridor through Canoe Meadows Wildlife Sanctuary. Given Mass Audubon's property location at the upgradient end of the Rest of the River, this property is the likely location of early remediation efforts. Mass Audubon would like to engage with GE and EPA in detailed planning for a careful, targeted approach and for state of the art pre- and post-remediation restoration planning and follow up monitoring. This would benefit not only Mass Audubon's property but also have excellent potential to contribute to the adaptive remediation approach which we believe is the preferred method of remediation for the River.

While we have serious concerns regarding the ecological impacts of any of the active remediation alternatives as currently under consideration, Mass Audubon does not support monitored natural recovery as an acceptable method of addressing the contamination of the River. We continue to believe that plans for remediation can and should be developed and implemented in a targeted and phased manner, and adjusted over time using principles of adaptive management. This would have many benefits including:

- focusing remediation work first on locations where the resulting reduction in PCBs would be greatest;
- limiting the amount of disturbance at any one time, thereby reducing overall ecological damage and improving the ability of species to become reestablished in remediated areas;
- learning from results in some areas and applying those lessons to future phases; and
- providing flexibility to apply emerging new technologies as they become available.

While the Sed 10/FP 9 alternative moves in the direction of a more targeted cleanup than previously presented alternatives, Mass Audubon believes that a more positive result can be accomplished by a phased, adaptive management approach combined with careful planning and restoration for each specific area affected by remediation.

Remediation and River Dynamics

In our previous comments, we have expressed concern about proposed armoring or permanent stabilization of riverbanks. We continue to believe that the permanent stabilization of riverbanks proposed under essentially all active remediation options in Reach 5 is problematic. In several passages in the CMS (e.g. p. 531), GE describes the effects that stabilized banks would have on bank erosion and channel migration, and properly concludes that permanent bank stabilization would adversely affect various important wildlife habitat features, including undercut and vertical banks. However, there are deeper problems with permanent bank stabilization.

First, a stabilized bank is impossible over any reasonably long length of time. Eventually, the river's erosional forces will cut through or under the stabilization structures (whether bioengineered or traditional), leading to the exposure and transport of sediments and associated PCBs intended to be left in place. To prevent this, GE or its successors would have to maintain the entire channel within the reach in perpetuity, an unlikely scenario. The CMS glosses over this problem by including the phrase, "if successful," in its presentation of the possible effects of permanent bank stabilization. Nowhere in the CMS is there a discussion of what the outcome would be if bank stabilization were not successful, nor, beyond a vague description of long-term monitoring, does the CMS contain a commitment to ensuring that bank stabilization would be successful over the long term. In our view, permanent bank stabilization cannot be achieved as described in the CMS.

Second – and more importantly—stabilizing the banks would eliminate one of the primary ecological processes that shapes this portion of the Housatonic, fundamentally altering the structure and function of the floodplain. At least over the term that the stabilization structures would be effective, perhaps decades, the Housatonic would be frozen in its current configuration. In addition to eliminating vertical and undercut banks, a lack of lateral movement would, over time, prevent the formation of backwaters, oxbows, and other features that reflect the dynamism of an active river channel, which in turn would affect the vegetation and wildlife communities that depend on this dynamism. Perhaps more than any other effect of the various active remediation options, the elimination of this basic ecological process would impair the long-term vitality of the Housatonic. We believe that a remediation approach that does not depend on the unrealistic goal of permanently halting the Housatonic's lateral movement in order to achieve remediation goals is necessary. Such alternative has yet to be presented in the CMS.

As noted above, we also support a phased approach to remediation of the river. As we have indicated in our previous comments, this project should be designed as a phased remediation that would allow for adaptive management – with flexibility to adjacent remediation and restoration methods over time based on experience and evolving techniques, as well as to consider new technologies and approaches that could minimize the impact of the remediation. Phasing is also important in relation to maintaining as much viable habitat and connectivity of habitats during remediation as possible. Defining the total amount of disturbance allowed at any one time, minimum revegetation standards before additional areas can be disturbed, and provisions for leaving some of each habitat type undisturbed at all times will all contribute to retention of the full range of native species and better restoration outcomes.

We continue to believe that EPA should consider permitting a demonstration phase of the remediation south of the confluence that would employ state of the art restoration techniques and provide time for evaluation of the results before proceeding with the remainder of the remediation. Put simply: we should be learning as we go, and building into the permit a requirement to evaluate and revisit the remediation and restoration techniques, even if this means that the remediation will extend over additional years.

Woods Pond

Mass Audubon supports the dredging of Woods Pond as part of the remediation. The cleanup plan should include provisions for future re-dredging as needed based on the results of ongoing monitoring.

Restoration

The degree to which the restoration of remediated areas is possible is dependent on a variety of factors including good documentation of existing and desired future habitat characteristics for objective evaluation of restoration success. The CMS contains a large number of generalizations regarding the likelihood of restoration failure to make the case that restoration

is not feasible. For example, GE has repeatedly pointed to the experience with one remediated vernal pool to suggest that adequate vernal pool restoration is not possible. Since limited information on pre-remediation topography and hydrology was documented at that vernal pool, it is impossible to evaluate the extent to which preexisting physical conditions were matched during restoration. Furthermore, the timeframe required for a reasonable degree of restoration of vernal pool habitat is on the order of decades not one or two years, so current results may not necessarily reflect the ultimate outcome.

The remediation plans should not only describe measures to physically minimize habitat destruction and fragmentation, but should also provide detailed plans for restoration of each habitat type, including the identification of restoration goals and objectives based on pre-remediation conditions. They should include methods such as capture and release of rare species, propagation of rare plants, and relocation of appropriate plants and animals to remediated areas, and detailed measures to minimize the likelihood of introduction of invasive species.

As we have previously noted, GE should be required to monitor and evaluate field conditions (and adjust as necessary) until the restoration goals are achieved. Depending on the ecological communities affected, and additional plantings or other work needed to meet restoration goals, this may take far longer than five years to determine. We believe that it is critical that GE define the elements of this long-term ecological monitoring and factor the cost of this long-term monitoring into its evaluation of alternatives. For this reason, we continue to believe that five years of post-construction monitoring is insufficient. Rather than setting an arbitrary monitoring period across the entire remediation area, the restoration monitoring timeframe should be consistent with the maturation of the restored communities. Five years of monitoring is inadequate, for example, to assess the success or failure of a floodplain forest restoration, which could take decades to mature, but might be adequate for an herbaceous community. GE's monitoring protocol should reflect this reality.

PCB Disposal

Mass Audubon has reviewed the options for disposal of contaminated sediment and offers the following comments:

Confined disposal within waterways is an unacceptable alternative under any scenario, as it both destroys important aquatic habitats and places the material in locations where it will be highly susceptible to erosion during flood events.

All of the proposed local upland disposal options have unacceptably high environmental risks and we request that further study of treatment and disposal alternatives be required. Two of the upland disposal sites presented in the CMS (the Woods Pond and Rising Pond sites) are located adjacent to waterways and also present unacceptably high risks of the material reentering the river environment through flooding or high water tables. The effects of climate change, including predicted increases in intensity of storms and flooding events make this issue

an even greater concern. The third upland alternative (Forest Street) is a steep (up to 45%) wooded hillside with shallow bedrock. This site presents serious engineering constraints to construction of a material disposal area, and is also unacceptable.

Mass Audubon recommends that further analysis of material treatment and disposal be required. Emerging technologies for treatment of PCB-contaminated soils may become more viable in the near future, and currently available technologies may be feasible for treatment of smaller amounts if the clean up starts by targeting a few locations first, then applying adaptive management for further phases. Absent such an approach, we recommend disposal in an existing, approved disposal facility that is permitted to accept such material, rather than the creation of a new PCB landfill.

Summary/Conclusion

The Revised CMS states that any remediation alternative other than monitored natural recovery would seriously and irreparably harm the ecological functions of the river and its associated wetland and floodplain habitats. This statement is inconsistent with the results of EPA's peer-reviewed Human Health and Ecological Risk Assessments, which conclude that PCBs are seriously harming or have the potential to seriously harm the river's human and ecological communities. In addition to the Housatonic-specific Risk Assessments, state, national, and international health-related agencies link PCBs to toxic responses in humans and wildlife. These toxic responses include carcinogenicity and effects on the immune, reproductive, neurological, and endocrine systems. EPA classifies PCBs as probable human carcinogens. Given that PCBs are persistent compounds, the decisions made about remediation will potentially affect the health and well-being of human and ecological communities in the Housatonic River watershed for hundreds of years or more.

Although none of the alternatives presented to date would allow for unlimited consumption of fish from the river, this is not the only outcome that should be considered. Levels of cleanup that significantly reduce risks to human health and the environment may be quite beneficial, especially if carried out in a carefully phased manner over time, with adjustments based on emerging technologies and lessons learned during initial phases.

Mass Audubon continues to support the cleanup of PCB from the Housatonic River. We urge further refinement of potential alternatives for remediation, habitat restoration, and treatment or disposal, and the application of a phased approach, involving adaptive management principles, to the selection of a preferred remedial alternative.

Thank you for considering these comments.

Sincerely,

Laura A. Johnson
President

cc: Jeff Porter, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (for General Electric)
Mary Griffin, Commissioner, Massachusetts Department of Fish and Game
Laurie Burt, Commissioner, Department of Environmental Protection
Wayne F. MacCallum, Director, Massachusetts Division of Fisheries and Wildlife
Susan Steenstrup, DEP WERO
Berkshire Natural Resources Council
Housatonic Valley Association
Housatonic River Initiative
Berkshire Environmental Action Team
Green Berkshires
Linda Palmieri

MASS MoCA

January 24, 2011

Mr. Jim Murphy
Community Involvement Coordinator
EPA New England, Region 1
5 Post Office Square - Ste 100
Boston, MA 02109-3912

Dear Mr. Murphy,

I write to urge great care and caution in the next phase of your Housatonic clean up.

I've followed the Phase I work to the north and your parallel efforts on the Hudson to the west. Knowing that you are balancing a wide range of public health, environmental and economic factors, I feel quite certain that aggressive dredging is not the best we can do. Dredging will destroy for at least two generations the essential nature of the river and its embankments, and, with it, a large part of what defines our region. That might be worth it if the public health benefits of dredging were both clearly understood and significant. I am not convinced, however, that the public health costs of dredging are even fully understood yet, and the public health benefits are certainly questionable at best; so, first, let's do no harm. There are many smart intermediate measures in your remediation toolkit, and as we've come to learn with many other systemic clean-up efforts, time itself - and the natural forces of nature - are often our friend.

I don't pretend to know the right recipe, but if any site deserves thoughtful incrementalism, it is this one.

At MASS MoCA - which occupies a former brownsfield site that was, I believe, the first large-scale industrial property in Massachusetts to successfully wend its way through all four phases of the Mass Contingency Plan (and which I've directed since its founding) - we worked closely with state environmental officials, consultants, and the site's former owner to develop a targeted clean-up and containment plan that was able to preserve historic buildings and create a safe public environment without devastating the historic fabric which makes this place so special. We picked our way through the site in small steps, using cotton swabs and hand tools instead of backhoes and bulk techniques. It proved to be effective, and cheaper too. I hope that will be your approach along the Housatonic, whose characteristics and surrounding wetlands imbue our entire county with such a powerful image: that is a signature stretch of river for the Berkshires, so please, I urge you to be as careful and conservative as you can possibly be.

MASSACHUSETTS MUSEUM OF CONTEMPORARY ART
1040 MASS MoCA WAY
NORTH ADAMS MASSACHUSETTS 01247
PH 413 664 4481 FAX 413 663 8548
www.massmoca.org

Over 3 million visitors per year come to the Berkshires for its unique mix of natural resources, outdoor recreational activities, culture and education. We must therefore protect the delicate web of natural and cultural resources which make the Berkshires what they are. Any approach you take to the Housatonic has to take into account the fact that the river is a central artery right at the heart of our county, highly visible and deeply interconnected to that cluster of destination attractions and natural resources which combine to stimulate nearly a half billion dollars per year in economic activity for our region . . . that's the second largest economic trade cluster we've got (if not the first) and one of our precious few sources of long-term sustainable growth. I know you know it, but let me emphasize again that this is a very important and sensitive part of the Berkshires you're dealing with here: among the many potential ideas under consideration for cleaning up the river, industrial-scaled dredging should not be among them.

Sincerely yours,

Joseph Thompson
Director

MODERN
MOLD & TOOL
MAGNUS
MOLDING

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

January 31, 2011

Dear Ms. Svirsky, I have been wrestling in my mind for the past two months on what to recommend for the clean up to the "Rest of the River". I have always enjoyed Canoe Meadows, hunting at the Wildlife Refuse at the end of East New Lenox Road, fishing on Woods Pond and I belong to the Lenox Sportsman Club which is again right along the side of the river. I am telling you this because I know this part of the river well, better than most people and I think it is one of the most beautiful stretches of this awesome river system. I find myself wanting all of the PCB's removed but then think of the consequences of doing that. Could we be stirring up more harm than good by dredging and we will definitely ruin the ecosystem along the banks of the river if we do a similar process like what was done in Pittsfield.

Having given the matter a significant amount of time and research I have concluded in my mind that the best way to handle this is to develop a level of PCB's in the river and its banks that we would be willing to live with. Something higher than the FDA would like to see but something that would determine where the real "Hot Spots" of PCB contamination is being observed. I then think we should go in and surgically remove the PCB's in the Hot Spot areas while taking great care not to disturb as much as the river and riverbanks as possible.

After this I think we should continue to monitor the levels of PCB's along this stretch of the river and wait for a few years to quantify what the results are of this minimally invasive removal of PCB's. Another reason for waiting is because I think in a few years Technology will solve most of our PCB problems in the Country. What I mean by this is that there are some ground braking technologies that are going to be available soon that will solve this problem.

Recently R.P.I., Rensselear Polytechnic Institute, in Troy, N.Y. has researched the use of "Bacteria" that eats PCB's. They are called Dehalococcoides or DHC bacteria. These bacteria can only grow by removing Chorines from compounds known as Halogenated Organics, most of which are toxic, like PCB's. These bacteria cannot survive in the presence of Oxygen but seem to thrive on PCB's.

Another bit of information from the website "The Virtual Museum of Bacteria" states that there are certain bacteria that eat oil and a whole range of Organic Compounds, like PCB's, most of which are harmful to Humans and higher organisms but excrete degraded, safe compounds that are not toxic to Humans and higher organisms.

I must state that these processes are not commercially available yet but most scientists think they are only a few years away from becoming a reality.

1995 EAST STREET, PITTSFIELD, MA 01201 TEL: 413-443-1500 FAX: 413-499-2246

BSI
ISO 9001
FM 34910

Therefore I would like to offer the plan I lied out, for your consideration. Let's determine what defines a "Hot Spot" and just work on those areas with surgical precision limiting the work to be as invasive as possible to the existing environment along the river and its banks. Secondly, wait and see if our work was helpful by monitoring this entire section of river and lastly hope for a Technological Cure to come along for the future such as the Bacteria that eat PCB's and excrete harmless compounds.

Thank you for the opportunity to express my opinions on this and please let me know if there is any assistance I can provide for you during your decision making process. This river is one of the Gems of Berkshire County and we need to do the best job possible to restore it to its original glory.

Sincerely
David J. Pedrotti
President, Modern Mold & Tool, Inc.

1995 EAST STREET, PITTSFIELD, MA 01201 TEL: 413-443-1500 FAX: 413-499-2246

BSI
ISO 9001
FM 34910

New England Newspapers, Inc.

75 South Church Street - P.O. Box 1171
Pittsfield, MA 01202
Phone: 413-496-6310 Email: Amick@berkshireeagle.com

Andrew H. Mick
President

January 26, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms.Svirsky:

I am writing to offer formal comment on General Electric's Revised Corrective Measures Study (CMS) recently submitted for Phase II of the Housatonic River Clean Up.

On behalf of my company, I strongly urge you to consider a low-impact clean up solution, which does not include extensive dredging, but does address the goal of meeting human health standards.

Let nature work along with today's technology and minimize the devastation to the Berkshire environment. A radical dredging effort, similar to that undertaken by GE previously, would last 10-20 years during which time thousands of trucks and construction equipment vehicles would travel through residential areas in southern Berkshire communities that rely on tourism for economic survival. This major effort would also require staging areas and dewatering facilities to be built through these forested and wetlands areas causing widespread, extensive damage. We at New England Newspapers, Inc. believe that a low-impact solution will balance the economic needs of our residents and the environmental needs of the wildlife. Anything more would cause widespread long-term damage.

I ask that the EPA take a prudent approach to this matter of PCB removal. I urge you to approve a method, which would have the least negative impact on the Berkshire County economy and environment.

I look forward to finding a solution to clean up the *Rest of the River* that balances the needs of our community while meeting human health standards as determined by the EPA.

Sincerely,

Andrew H. Mick

RECEIVED
JAN 27 2011
By

NORMAN ROCKWELL MUSEUM

9 Glendale Road
PO Box 308
Stockbridge, MA 01262

T 413.298.4100
F 413.298.4142

www.nrm.org

A non-profit educational museum

27 January 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
Via email: svirsky.susan@epa.gov

Dear Ms. Svirsky:

On behalf of Norman Rockwell Museum's trustees and staff, this is to comment on the plan submitted by General Electric to the public to clean up the rest of the Housatonic River in Berkshire County. As we are situated on the bank of the river in Stockbridge, MA, and below the area slated for Phase II of the clean-up, our museum will be adversely affected by this effort as it stands now.

Phase I, now completed, was located in a mostly industrial area in Pittsfield. It included a significant dredging effort, which permanently changed the landscape of the river and has had a devastating impact on the environment. The area of Phase II of the River clean-up flows mainly through wildlife and residential areas. Extensive dredging would devastate the river and negatively affect tourism, the Berkshire County economy, and our quality of life for years, if not forever. Furthermore, as we have seen with Phase I, physically removing portions of the river will unleash many of the toxins (PCBs) in the Phase II section of the river downstream, and threaten the wildlife that lives there.

We cannot allow this plan to go forward in its current form. Norman Rockwell Museum, in agreement with 1Berkshire and the Smart Clean-Up Coalition, advocates for a low-impact solution that still meets EPA's human health standards and will not damage the environment further in the process. With all the new technologies available today, we feel that there are better ways to clean up the river, protect the environment, protect our community members' health, and preserve the Berkshire economy. We urge you to consider alternative methods and solutions to mitigating the damage that has already been inflicted on the river.

Thank you for your consideration.

Most sincerely,

Laurie Norton Moffatt, Director/CEO

cc: Senator John Kerry
Senator Scott Brown

NORMAN ROCKWELL MUSEUM

Congressman John Olver
Senator Benjamin B. Downing
Representative William "Smitty" Pignatelli
Representative Christopher N. Speranzo

LOW impact plan for the Housatonic please

Margit Hotchkiss to Jim Murphy 01/31/2011 05:34 PM

Mr. Murphy;

I plead with you to consider a low-impact clean-up solution for the next phases of the Housatonic clean up plan, that **does not include extensive dredging.** I drive from Dalton to Stockbridge - and see all that was done in the first phases, and the clearing, and "industrial looking" stabilization methods that were used on the river banks have truly destroyed an otherwise gorgeous, useable river. As important as tourism is to our regional economy - I must voice my serious concern for anything done to harm this important natural resource; especially given the mixed results of the drastic efforts of dredging. As the Housatonic wraps around the property at which I work, the Norman Rockwell Museum- it also critical to keep the grounds, views and surrounding environs of the Museum beautiful and safe, as well as important to save the integrity of the river.

Thank you for your thoughtful consideration.

Best,

Margit Hotchkiss
Director of Marketing

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413. 931. 2240
www.nrm.org

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PEDA

Pittsfield Economic Development Authority

81 Kellogg Street, Pittsfield, MA 01201

William M Hines, Sr.
Executive Director
bhinessr@williamstanleybusinesspark.com
413.446.0314

Phone: (413) 494-7332
Fax: (413) 494-2741

January 31, 2011

Susan Svirsky
USEPA
10 Lyman Street.
Pittsfield, MA 01201

Dear Ms. Svirsky:

I am writing, partially on behalf of the Pittsfield Economic Development Authority but also as a citizen of Pittsfield and Berkshire County. This is a simple letter but one that hopefully expresses heart-felt concern for the Housatonic River project.

Regarding the "rest of the river" project, I am hopeful the EPA and all concerned will seriously evaluate alternatives to completely dredging the river and changing forever the river banks and surrounding areas. I would hate to see the devastating results to the natural beauty and serenity of the river if an overly-aggressive remediation action occurred. The effect on wildlife and the recreational activities around the river would be impacted for many, many years, probably decades. We, as a region, cannot afford to let that happen.

A modified, less-obtrusive remediation action in the most affected areas, I think would be the logical and best solution for attacking the condition of the "rest of the river". I hope those who have the power and the influence agree and this "preserve the good that we have" approach is the best solution.

Thank you for your consideration,

Bill Hines

Bill Hines, Sr.

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June Roy-Martin to: Jim Murphy 01/24/2011 11:46 AM

Jim Murphy,
We support a low-impact clean up for the river. Many of our employees are outdoors type of people who hunt, canoe and use the beautiful Berkshires in recreation and all of us believe a full dredging of the river would be a terrible thing. A low-impact seems a viable solution for cleaning up four rivers.
Thank you,
June Roy-Martin

June Roy-Martin, MBA
Manager, Communications & HR
Qualprint - Producing with Solar Power!
3 Federico Drive, Pittsfield, MA 01201
Phone: (413)442-4166, ext. 119 Fax: (413)442-8612
Tollfree phone 1-800-547-7468

SABIC
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سابك
sabic

Charlie Crew
President and CEO
Chairman of the Management Board

January 7, 2011

Mr. Jim Murphy
EPA Community Involvement Coordinator
Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Re: Housatonic Revised Corrective Measures Study

Dear Mr. Lyman:

I am writing with respect to the Revised Corrective Measures Study for the Housatonic that was submitted by General Electric in October 2010. SABIC Innovative Plastics maintains its headquarters in Pittsfield, and many of our employees live in Berkshire County, so we are very interested in the options being proposed for the Housatonic and the impact of those options on our community.

The Housatonic River flows through major portions of Berkshire County, and is a resource for recreation and tourism. We are very concerned that any solution that involves dredging of significant portions of the river could result in many years of negative impact while the dredging is underway and while the river recovers afterwards. The river currently is a beautiful waterway, and dredging would damage its natural beauty and disrupt the ecology in significant ways. A dredging project also has the negative consequences of equipment traffic to and from the access points in our communities, and the need to dispose of the dredge material. These multi-year negative impacts should be avoided.

We urge that any decisions on future work on the Housatonic place a strong priority on avoiding disruption to the river's ecology and the residents of the communities along its banks. Thank you for your consideration.

Sincerely,

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charlie.crew@SABIC-IP.com
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SABIC Innovative Plastics US LLC

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SWM
engineered for tomorrow

December 9, 2010

Ms. Susan Svirsky
Mr. Jim Murphy
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Sirs,

For the past two years, Schweitzer-Mauduit International has been actively pursuing the sale of the Columbia Mill in Lee, Massachusetts. The Company has been working closely with the Town of Lee and the Lee Community Economic Development Corporation to rehabilitate the Columbia Mill in order to provide employment for the Community. Unfortunately, the interested developers who have looked over the property have declined to make any offer to purchase the Mill. A problem that comes up repetitively is the Columbia Dam and more specifically the PCB buildup behind the dam.

The Company has been contacted by various agencies and organizations who have expressed interest in removing the dam. These organizations include the Commonwealth of Massachusetts Division of Ecological Restoration which has managed the breaching of numerous dams in Massachusetts, the American Rivers Association and the Housatonic Valley Association. Schweitzer-Mauduit also supports this approach. Unfortunately, the liability and uncertainty associated with the PCB's behind the dam and in the flood plain have negated any efforts to pursue dam removal.

The resulting economic loss caused by the PCB restraint is hurting the Community of Lee. The PCB problem a major factor preventing the reuse of the Mill. The PCB problem was caused by events outside the control of Schweitzer-Mauduit and both the Town of Lee and Schweitzer-Mauduit need help in coming up with a proper solution. Schweitzer-Mauduit believes that the General Electric Company's Revised Corrective Measures Study should include a plan to deal with the Columba Mill Dam in Lee. . Schweitzer-Mauduit stands ready to assist in any approach that would solve this important environmental and economic problem on the Housatonic River.

Respectfully Submitted

Gary L. Kennedy
Mill Manager – Ancram, NY and Lee, MA

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SWM INTL
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Ancram, NY 12502-0010
USA
phone 518 329 4222
fax 518 329 1161
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From: "Catherine Doherty" <cdohe@briencenter.org>
To: Susan Svirsky/R1/USEPA/US@EPA
Cc: <Lori.Gagizzillo@LegacyBanks.com>

Date: Friday, January 28, 2011 12:38PM
Subject: housatonic river clean-up

Dear Susan,

I am writing to support the low impact proposal for the second phase of the Housatonic River Clean-Up. The low-impact solution would be the best answer to the complicated and multi-faceted clean-up process. The alternative solutions would have a devastating impact on the community. Berkshire County is a special and beautiful community and while we are determined to see the Housatonic River returned to its former pristine condition, the low impact solution could accomplish that process. The Brien Center employs over 550 residents of Berkshire County who would be negatively affected by anything other than the low impact clean-up—the river is an important part of their lives!

Thank you for your consideration. I urge the EPA to rule in favor of the low-impact solution for the Housatonic River.

Catherine A. Doherty, M.Ed.

Chief Executive Officer

The Brien Center for Mental Health and Substance Abuse Services

Post Office Box 4219

Pittsfield, MA 01202

413-629-1279

413-448-2198

cdohe@briencenter.org

"Work like you don't need the money, love like you've never been hurt, and dance like no one is watching."

Confidentiality Notice: This e-mail communication and any attachments may contain confidential and privileged information for the use of the designated recipients named above. if you are not the intended recipient, you are hereby notified that you have received this communication in error. Please notify The Brien Center immediately by e-mail at postmaster@briencenter.org and destroy all copies of this communication as well as any attachments.

The COLONIAL
See You There!

January 28, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

I am writing to offer formal comment on General Electric's Revised Corrective Measures Study (CMS) recently submitted for Phase II of the Housatonic River Clean Up.

In so doing and on behalf of Berkshire Theatre Festival in Stockbridge and The Colonial Theatre in Pittsfield, I strongly urge you to consider a low-impact clean up solution, which does not include extensive dredging, but does address the goal of meeting human health standards. This portion of the River, otherwise know as the *Rest of the River*, is very different from the area addressed in Phase I, which ran primarily through an industrial district. This portion flows through a natural, forested and wetlands area filled with wildlife and recreational activities enjoyed by residents and visitors alike for hundreds of years.

A radical dredging effort, similar to that undertaken by GE previously, would last 10-20 years during which time thousands of trucks and construction equipment vehicles would travel through residential areas in southern Berkshire communities that rely on tourism for economic survival. This major effort would also require staging areas and dewatering facilities to be built through these forested and wetlands areas causing widespread, extensive damage. We at Berkshire Theatre Festival and The Colonial Theatre believe that a low-impact solution will balance the economic needs of our residents and the environmental needs of the wildlife, while meeting the EPAs human health criteria. Anything more would cause widespread long-term and in some cases permanent damage.

As a concerned community member I ask that the EPA take a cautious approach to this very important matter of PCB removal. I strongly urge you to approve a method, which would have the least negative impact on the Berkshire County economy and environment.

Thank you for the opportunity to comment on such an important decision. I look forward to finding a solution to clean up the *Rest of the River* that balances the needs of our community with that of meeting human health standards as determined by the EPA.

Sincerely,

Kate Maguire
Artistic Director, CEO
Berkshire Theatre Festival, Colonial Theatre

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TEL: (413) 448-8084 FAX: (413) 448-8772
EMAIL: info@thecolonialtheatre.org

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Fax 413-448-2080

110 Dalton Avenue
Tel. 413-395-9626
Fax 413-395-9635

GREAT BARRINGTON
325 Main Street
Great Barrington, MA 01230
Tel. 413-528-2840
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DALTON
488 Main Street
Dalton, MA 01226
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Fax 413-684-1554

January 27, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

As both a citizen and CEO of a local community bank, I am duty bound to comment on General Electric's Revised Corrective Measures Study (CMS) as you consider remediation plans for the "Rest of the Housatonic River."

I certainly understand the necessity of the aggressive plan used to dredge the river, its banks and neighboring wetlands during PHASE I of the clean- up. This part of the river was located in the City's industrial area where the wildlife impact was minimal and the maintenance of the natural beauty of the area was not the ultimate concern.

To attempt this same solution for the next phase of the clean-up would be a terrible and unalterable mistake. Not only would it adversely affect the communities surrounding the remaining length of river by disrupting their economy and their daily lives, it would cause irreparable harm to the river and the ecosystem in general. This next phase of clean-up needs to carefully consider the needs of the communities affected and the resulting health and well-being of all that flourish from this important natural resource.

I recognize that there is no "easy" solution to years of environmental destruction and I will not pretend to have the answer; however, I do know that resolution does not lie in proceeding with the rest of the river as you did in PHASE I. I ask that the EPA take a measured, commonsense approach to the very sensitive and important matter of PCB removal in the remaining phase.

I am a life-long resident of the Pittsfield area and a life-long fan of the Berkshires and all that it offers to the people who live, work and recreate here. I have a vested interest in what happens to the river and the surrounding communities on behalf of me, my family and my employees. I urge you to avoid aggressively dredging the rest of the river and I would gladly make myself available should the EPA wish to discuss this matter at some point in the near future.

Sincerely,

J. Jay Anderson
President & CEO

JJA:vak

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By

TOXICS ACTION CENTER

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EMAIL: info@toxicsaction.org
WEB: www.toxicsaction.org

January 21, 2011

To: Susan Svirsky, EPA Rest of River Project Manager

Re: General Electric Clean Up of the Housatonic River

Toxics Action Center Campaigns is a public health and environmental organization that works side by side with communities to clean up and prevent pollution, while developing long-term citizen leaders for the environmental and social change movements. We have worked for many years with citizens groups across the state to protect public health and the environment by ensuring full cleanup of toxic waste sites in their neighborhoods.

We have reviewed the proposals for sediments, riverbank, and the floodplain. It is our opinion that General Electric should be held responsible and required to remove PCBs from the Housatonic River ecosystem to the best of their ability.

While General Electric may say "we don't know how much damage the Rest of River can bear from an attempt to remove more PCBs", the truth is it will survive. SED 1-2 are unacceptable. It is more important that PCBs finally be removed from these communities.

All caps eventually leak. SED 3 – 7 are thus will be ineffectual in time.

Concerning SED 8 – 10, Toxics Action Center advocates for 10. It has taken long enough. SED 10, with the timeline of 5 years and full removal of the toxics, is the best option.

The same criteria should be used to choose the plans for the floodplain (FP 9).

Toxics Action Center rejects the proposal to place the removed PCBs into new hazardous waste sites. Hazardous waste sites threaten the health of communities and the safety of water supplies across New England. More than 10,000 waste sites dot New England's landscape. We should not be creating more. If remedial treatment techniques are not available to break down or reduce the toxicity of the PCBs, we urge you to consider removing contaminated materials and disposing of them in a facility already permitted to accept hazardous waste. We are adamantly opposed to creating new toxic waste dumps in Berkshires communities.

Toxics Action Center joins many in the Pittsfield area in urging the EPA to aggressively scrutinize the situation, use the best science, and come to the right conclusion.

Finally, we encourage the EPA to elicit more public participation and input from communities along the river in Connecticut.

Claire B.W. Miller
Community Organizer
Toxics Action Center

STATE GOVERNMENT

The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
Bureau of Environmental Health
250 Washington Street, Boston, MA 02108-4619
Phone: 617-624-5757 Fax: 617-624-5777
TTY: 617-624-5286

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

JUDYANN BIGBY, M.D.
SECRETARY

JOHN AUERBACH
COMMISSIONER

December 15, 2010

Susan Svirsky, EPA Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

Thank you for the opportunity to provide the U.S. Environmental Protection Agency (U.S. EPA) with comments from the Massachusetts Department of Public Health, Bureau of Environmental Health (MDPH/BEH) regarding the 2010 Revised Corrective Measures Study (CMS) submitted by General Electric (GE) for the Housatonic River Site, Rest of River.

Consistent with our previous comments and those of other Massachusetts government entities regarding GE's March 2008 CMS, we request that U.S. EPA carefully consider the proposed remedies in the context of the long term goal of returning the Housatonic River to conditions prior to PCB contamination by GE, but not at the expense of destroying the natural ecological and recreational resources associated with this important area of our state. To that end, MDPH/BEH submits the following comments based on our review of GE's 2010 Revised CMS in the context of potential public health considerations.

First, MDPH/BEH believes the long-term goal of any remedial alternative for the Rest of River should include restoring the River to conditions that will allow for the consumption of fish, frogs, turtles, and waterfowl no longer contaminated with elevated levels of PCBs. Thus, it continues to be disconcerting to MDPH/BEH that health-based goals for fish consumption will not be met with any of the remedial alternatives put-forth by GE in the Revised CMS.

MDPH/BEH would also like to reiterate our previous comment that any dredging and removal activities in the Rest of River are expected to result in elevated exposures and risks and thus these activities should be conducted in the safest way possible to minimize opportunities for exposure to PCBs.

MDPH/BEH previously noted that GE's 2008 CMS contained no information regarding a location for an upland disposal facility or transportation plans for dredged sediment and

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floodplain soils. GE's 2010 Revised CMS evaluates five treatment/disposal alternatives and recommends that contaminated sediments and soils be placed in an Upland Disposal facility without destroying the PCBs. MDPH/BEH is concerned that this approach simply involves shifting PCB contamination from one location (the River) to one or more other nearby locations which may introduce a number of new environmental exposure and public health concerns. The Revised CMS identifies and describes three potential locations but does not include any detailed specifics about these locations or configurations. Thus, it is not possible to specifically evaluate future potential exposure and health impacts (e.g. air impacts, groundwater or surface water contamination, etc.) associated with transferring PCB contaminated materials to a new and sometimes previously unpolluted area within the region. MDPH/BEH feels that serious consideration should be given to a remedy that removes and destroys the PCB contamination such that no residents will have to worry about PCB contamination near their home.

Although we can appreciate the complexities facing U.S. EPA in determining a clean-up plan for the Housatonic River Site, Rest of River, it is important to ensure it is done in a manner that prioritizes protection of human health and the natural ecology. Returning the HRA's Rest of River to conditions prior to PCB contamination by GE, should be the goal. Thank you for the opportunity to submit comments on the Revised CMS. Please feel free to contact us at 617-624-5757.

Sincerely,

Suzanne K. Condon, Associate Commissioner
Director, Bureau of Environmental Health

Cc: Martha J. Steele, Deputy Director, MDPH/BEH
Meg Blanchet, Assistant Director, MDPH/BEH Environmental Toxicology Program
Julie Cosio, Senior Environmental Analyst, MDPH/BEH Environmental Toxicology Program
Dr. Phil Adamo, Chairman, Pittsfield Board of Health

The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

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January 31, 2011

Ms. Susan Svirsky
EPA Rest of River Project Manager
United States Environmental Protection Agency
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Re: Housatonic River Rest of River; *Comments on Housatonic River – Rest of River, Revised Corrective Measures Study Report*, October 2010

Dear Ms. Svirsky:

The Commonwealth of Massachusetts, through its Executive Office of Energy and Environmental Affairs (EEA), Massachusetts Department of Environmental Protection (MassDEP) and the Massachusetts Department of Fish & Game (DFG), is pleased to submit comments on General Electric's October 2010 Revised Corrective Measures Study. We commend EPA for requiring General Electric to present a wide array of potential remedial alternatives, and we commend the company for presenting a detailed and informative evaluation of the advantages and disadvantages of the different approaches.

After extensive review of the remedial alternatives presented to date, the Commonwealth has concluded that none of the current combinations of alternatives achieve the remediation goals without causing irreparable harm to this unique, diverse and vital ecosystem that has been designated by the Commonwealth as an Area of Critical Environmental Concern (ACEC). The Housatonic River watershed is one of the most biologically rich ecosystems in the Commonwealth, and supports many species found nowhere else in Massachusetts. The Commonwealth is concerned that in some areas the remediation of PCBs may result in destructive ecological impacts to this rich and unique system. We therefore propose an alternative: a phased, long-term remedy that minimizes human health risks posed by PCBs in the environment, while at the same time taking care to weigh potential benefits of remediation against potential injury to the ecosystem. Our proposed approach is to remove PCBs when needed to protect human health, or when other compelling goals may be achieved without causing ecological harm. This means that our approach leans away from performing intrusive work solely in the name of meeting purported ecological goals; because in virtually all instances the actual and inevitable damage to this existing, unique ecological resource will far exceed the theoretical benefit of lower PCB concentrations.

The key components of the Commonwealth's proposed remedy are as follows:

- Excavate Woods Pond to remove approximately 286,000 cubic yards of PCB-contaminated sediment and bring the average concentration of PCBs in Woods Pond to 1 ppm, with the highest concentration at 6 ppm. This excavation would eliminate up to 25% of the mass of PCBs in the *entire rest of the river* from Lenox to the Long Island Sound. It would also increase the sediment trapping efficiency of the pond, protect downstream public health and safety in the event of a dam failure, and enhance recreational uses of the pond. These benefits can be achieved without causing any significant ecological damage, as there are no rare species habitats within the pond; a nearby staging area is available; and a nearby rail line could transport the excavated material off-site.

- At this time, perform no bank or river excavation and stabilization, because this work is not necessary to meet the human health goals identified by the EPA (due to the low concentrations of PCBs) and will inevitably cause severe and long-lasting destruction of the Housatonic River ecosystem and state-listed rare species, which far outweighs any environmental benefits from PCB removal.

- In the floodplain, focus on locations totaling 57 acres where there are significant PCB concentrations. Avoid excavation in the highly sensitive rare species habitats and use institutional controls to address public health risk. In the less sensitive areas in this location, a combination of institutional controls, site-wide averaging, and carefully targeted excavation should be used to address the risk.

- Transport all excavated material off-site, taking advantage of the nearby rail line. Under no circumstances should there be a hazardous waste landfill constructed in Berkshire County for the excavated material. To do so plainly adds insult to injury.

- Perform ongoing monitoring of the success of past and future remediation efforts, ongoing consideration of new technologies as they become available, and reconsider final options for the remaining PCBs as more data is gathered.

- Immediately improve existing institutional controls to prevent human exposure, such as more plentiful fish advisory warnings, regular newspaper advertisements and other informational outreach programs.

Introduction

The Housatonic River suffers from a legacy of contamination resulting from PCBs that were released from the GE facility in Pittsfield from the 1930s through the 1970s, contaminating the Housatonic River sediment, banks, and floodplain soils. Despite this legacy of contamination, the Housatonic River Watershed encompasses a rich and unique ecosystem supporting many rare plant and animal species and their associated habitats, including wetlands, floodplains, vernal pools, surface waters, and forested areas. These are natural resources precious to the Commonwealth, and they must be protected, even as we rightfully demand that contamination from decades of industrial abuse be rectified once and for all.

The various sediment and floodplain alternative combinations presented to date, while potentially meeting remediation goals set through extensive public processes, would cause irreparable harm to this fragile ecosystem by disrupting habitats and ecosystem processes that have shaped the river and its floodplains for thousands of years. This is not acceptable.

After careful consideration of the alternatives by the Commonwealth's environmental agencies, we present and argue forcefully for a practical, incremental remediation approach that protects human health but also preserves the river, and the unique and irreplaceable habitat it creates, for the benefit of current and future generations. This approach has been developed by application of the Commonwealth's nation-leading environmental standards and is fully consistent with EPA's goal of Overall Protection of Human Health and the Environment. On this basis, we put our approach forward without reservation.

Recognition of the ecological uniqueness and importance of the Housatonic River watershed is at the core of this proposal, and we discuss in detail the dramatic impact the remedial measures evaluated in the CMS would have on the meandering character of the river, its banks, the floodplain, and on MESA state-listed species and their habitat to underscore the importance of preserving this ecosystem.

The tables and figures referenced throughout this discussion are contained in Appendix A to this letter.

The Ecological Uniqueness and Significance of the Housatonic River Watershed

The Housatonic River watershed is one of the most biologically rich and unique regions of the Commonwealth. Its limestone bedrock creates an exceptional hydrological base, supporting rich, calcareous soils and wetlands found only in this region. These rich soils and wetlands of the valley floor create a unique ecosystem which supports many species found nowhere else in Massachusetts. The Housatonic River watershed is home to 110 species of plants and 51 species of animals that are protected under Massachusetts Endangered Species Act, M.G.L. c. 131A, ("MESA") and the MESA regulations at 321 CMR 10.00. It also contains 13 high priority Natural Communities, 12 certified vernal pools and up to 107 potential vernal pools.

In addition to the wide range of state-listed species under MESA, the Housatonic River supports a substantial and highly productive fisheries resource. Thirty-seven species of fish have been found in the river and its supporting waters providing important, valuable and diverse recreational fisheries for both warm and coldwater species. Moreover, the Housatonic supports coldwater habitat including the main stem of the Housatonic River and its direct tributaries. These coldwater fisheries are protected under 314 CMR 4.06 of the MA Surface Water Quality Standards ("MA WQS") as coldwater habitat. The MA WQS require that both the fish population and habitat be protected and maintained as designated or existing uses. Recognizing these unique resources, the Commonwealth has designated the Upper Housatonic Watershed (which includes the primary study area of the CMS) as an Area of Critical Environmental Concern (ACEC). In that designation, the EEA Secretary found as follows:

> The Upper Housatonic River Area of Critical Environmental Concern (ACEC) encompasses the 13-mile corridor of the Housatonic River from southern Pittsfield to northern Lee, and portions of the supporting watersheds that drain into the river from the east and west. This section of the Housatonic River includes a complex ecosystem of the river, adjacent wetlands and floodplains, coldwater tributary streams, large expanses of wildlife and rare species habitat, and the steep, forested, western slopes of October Mountain State Forest. There are also historical and archaeological resources, farmland and open space, and scenic and recreational areas. The ACEC includes all nine of the inland resource features listed in the ACEC Regulations - including fisheries, wetlands and surface waters, water supply areas, floodplains and steep slopes, agricultural and forested areas, historical and archaeological resources, wildlife and rare species habitats, and public recreational and natural areas.
>
> The regionally significant biodiversity and wildlife habitat in the designated area is indicated by the exceptional number of rare species (32), Certified and Potential Vernal

> Pools (46), and the combined total of 11,405 acres or 93% of the area delineated as viable habitat by the Division of Fisheries and Wildlife's (DFW) Natural Heritage & Endangered Species Program (NHESP). Of this total, 7,869 acres (64%) of the ACEC is designated as BioMap Core Habitat and Supporting Natural Landscapes, 3,536 acres (29%) as Living Waters Core Habitat and Critical Supporting Watershed. Regulated areas of rare species Priority Habitats and Estimated Habitats total 3,130 acres or 25% of the ACEC, with the majority of these acres included in the BioMap and Living Waters areas. There are more than 21 river miles of Coldwater Fisheries, with breeding populations of native brook trout, and other fishery resources totaling approximately 30 fish species. Common wildlife in the region includes bobcat, coyote, deer, bear, and moose. The extensive wildlife habitats of the ACEC, including many rare and unique habitats, illustrate the close ecological interdependence of the various natural and cultural resource features of the ACEC. The area is important for fishing, tourism, recreation, forestry, and agriculture.

Upper Housatonic River ACEC Designation, March 30, 2009, p. 1.

The Primary Study Area (the "PSA") for the Rest of River remediation extends from the confluence of the East and West Branches of the Housatonic River in Pittsfield, to Woods Pond in Lenox. This stretch of Housatonic River in the PSA is a low-gradient, large river that is free to migrate across hundreds of acres of protected open space and sculpt the floodplain. The meandering river is constantly reshaping the landscape, creating an incredible diversity of habitats including oxbow wetlands, backwaters, sloughs, and vernal pools (Figures 7-9). The fertile soils, shifting banks and dynamic nature of the river are precisely what make the Housatonic River segments of the PSA an ecologically unique resource among all the major rivers in the Commonwealth. The PSA also supports an abundance of diverse and ecologically sensitive wildlife resources including 25 state-listed species (Table 1).

In addition, the Commonwealth's Division of Fisheries and Wildlife ("DFW"), a division of the Department of Fish & Game, owns one or both sides of approximately 85% of the land along the river's bank in the PSA, including the 818 acre George L. Darey Housatonic Valley Wildlife Management Area (the "Darey WMA"). The Darey WMA is spread across multiple parcels consisting of river-front and floodplain and is one of western Massachusetts' most heavily utilized wildlife management areas for all types of passive recreation, including hunting, fishing, trapping, hiking, canoeing, kayaking, bird watching, and wildlife viewing. Thus, in addition to its regulatory interests, the Commonwealth is a major landowner within the PSA, with stewardship responsibilities over a wildlife management area that is highly valued by recreational stakeholders.

<u>The PSA is a Critical Area for Biodiversity and State-listed Species</u>

The Housatonic River watershed supports one of the greatest concentrations of plant and animal species listed for protection under MESA in the Commonwealth. The Commonwealth has documented 25 state-listed species within the PSA alone, including 6 species that are listed as "Endangered" and 9 that are listed as "Threatened." The list of these 25 state-listed species is shown in Table 1.

The Commonwealth has divided the PSA into four sections as illustrated in Figure 1. It is striking that almost the entire PSA is mapped as priority habitat for one or more state-listed species by DFW's Natural Heritage & Endangered Species Program ("NHESP") pursuant to the MESA regulations (Figure 2). Figures 3, 4 and 5, in turn, depict the high degree of overlap between priority habitats of individual species, with some areas mapped for up to 15 state-listed species at any given point on the ground.

Moreover, there are high concentrations of state-listed species, including **core areas**[1] for subsets of species, throughout the PSA, as described in more detail below.

Section 1 of the PSA (from the confluence of the East and West Branches, south to the Pittsfield Sewage Treatment Plant) has a high concentration of state-listed species, including priority habitat for 18 of the 25 listed species in the PSA (Figure 4). It also contains core areas for the following 11 species: American Bittern (*Botaurus lentiginosus*), Common Moorhen (*Gallinula chloropus*), Wood Turtle (*Glyptemys insculpta*), Triangle Floater (*Alasmidonta undulata*), Riffle Snaketail (*Ophiogomphus carolus*), Ostrich Fern Borer (*Papaipema* sp. 2), Mustard White (*Pieris oleracea*), Tuckerman's Sedge (*Carex tuckermanii*), Hairy Wild Rye (*Elymus villosus*), Bristly Buttercup (*Ranunculus pensylvanicus*), and Wapato (*Sagittaria cuneata*).

Section 2 of the PSA (from the Pittsfield Sewage Treatment Plant, south to New Lenox Road in Lenox) has a high concentration of state-listed species, including priority habitat for 14 of the 25 listed species in the PSA (Figure 4). It also contains core areas for the following 5 species: Wood Turtle (*Glyptemys insculpta*), Rapids Clubtail (*Gomphus quadricolor*), Mustard White (*Pieris oleracea*), Narrow-leaved Spring Beauty (*Claytonia virginica*), and Wapato (*Sagittaria cuneata*).

Section 3 of the PSA (from New Lenox Road in Lenox, south to the north end of Woods Pond) has a high concentration of state-listed species, including priority habitat for 18 of the 25 listed species in the PSA (Figure 5). It also contains core areas for the following 8 species: American Bittern (*Botaurus lentiginosus*), Common Moorhen (*Gallinula chloropus*), Rapids Clubtail (*Gomphus quadricolor*), Mustard White (*Pieris oleracea*), Gray's Sedge (*Carex grayi*), Narrow-leaved Spring Beauty (*Claytonia virginica*), Bur Oak (*Quercus macrocarpa*), and Wapato (*Sagittaria cuneata*).

Section 4 of the PSA (Woods Pond, including the northern portion of the pond) includes priority habitat for 10 of the 25 listed species in the PSA. It also contains core areas for the following 4 species: American Bittern (*Botaurus lentiginosus*), Common Moorhen (*Gallinula chloropus*), Bur Oak (*Quercus macrocarpa*), and Wapato (*Sagittaria cuneata*).

As shown in Figure 6, the PSA contains core areas for 15 species, which covers a majority of the PSA. While all 25 of the state-listed species with habitat in the PSA may experience some level of negative impact due to remediation activities, the 15 species for which core areas have been designated are particularly sensitive to such impacts, and are listed in Table 2.

From a MESA standpoint, the Housatonic River watershed has long been recognized for its diversity of rare species, many of which are found nowhere else in the Commonwealth. Moreover, recent field surveys conducted by the NHESP have greatly improved our understanding of the distribution of state-listed species, vernal pool-breeding amphibians, and important natural communities. The results of these surveys are summarized in a 2010 NHESP report entitled, *Rare Species and Natural Community Surveys in the Housatonic River Watershed of Western Massachusetts*, contained in Appendix B.

The NHESP surveys targeted a total of 60 state-listed species including 31 plants, 3 butterflies and moths, 5 dragonflies and damselflies, 2 freshwater mussels, 4 fish, 2 salamanders, 3 turtles, and 10 marsh birds. The project also targeted 12 priority (S1-S3) natural community types. A total of 47 target species and 21 non-target state-listed species were encountered during these surveys. Among the newly documented species were 10 Endangered, 5 Threatened, and 6 Special Concern species. Moreover, all of the target

[1] A "core area" for any given state-listed species is defined by the NHESP as a portion of the priority habitat that is of particularly high quality or habitat that is critical to survival and reproduction of the local population, or both.

natural communities were found, plus an additional 4 priority natural community types were documented for the first time in the critical supporting watershed.

In short, these recent MESA-related surveys provide fresh documentation of the wide range of robust state-listed species and amphibian populations within the PSA that occur despite PCB contamination. These surveys underscore the critical importance of avoiding and minimizing impacts to these species and their habitats as a core consideration of the Rest of River remedy selection process, and counsel strongly against sacrificing an actual, existing rich ecology in the name of achieving a theoretical ecological benefit from PCB removal.

The Importance of Preserving the Meandering and Dynamic Character of the Housatonic River and Floodplain

Natural areas with a high degree of "ecosystem integrity" retain not only a full complement of native plants and animals, but also the natural *processes* that maintain those species in the long term. Low gradient rivers with intact, undeveloped floodplains will move, and it is this channel migration that maintains a diverse mosaic of wetlands and habitats that support species diversity over time. One of the most unique aspects of the Housatonic River and floodplain in the PSA is the degree of meandering of the river and the presence of backwaters, side channels, oxbows, and remnant oxbows that have developed into diverse wetlands. Indeed, it is extremely unusual to see this morphology in rivers of this size in Massachusetts or elsewhere in southern New England. To underscore this critical point, we have included a series of visual representations in Appendix A (Figures 7, 8 and 9) that illustrate the channel migration and wetlands formation process that characterize the Housatonic River system.

Figure 7 illustrates the great diversity of wetland types and habitat features created by the meandering Housatonic River within the PSA.

Figure 8 illustrates how these vital habitat features are formed by the meandering river. River segments that remain relatively stable allow for the establishment of streamside and aquatic vegetation, while fallen trunks and branches (snags) provide additional aquatic habitat. Gradual channel migration and sudden meander cut-offs greatly increase the variety of habitats available on the floodplain through continual creation of floodplain wetlands, which then undergo gradual vegetation succession.

As shown in Figure 8a, gradual erosion occurs on the outer bank of a meander while sediment deposition occurs on the inner bank. This process causes the river to migrate, thereby creating a deeper, more sinuous meander. Eventually, often during a major storm, the river channel cuts off to establish a straighter path, creating an oxbow lake (Figure 8b; Figure 7). Over time, the floodplain ponds reconnect to the river during flood events, leading to sediment deposition in the oxbows, as well as an exchange of organisms. As the oxbows gradually fill with sediment, the changes in vegetation ("succession") lead to the great diversity of wetland types found in the PSA, including oxbow lakes, vernal pools, sloughs, side channels, shrub swamps, marshes, wet meadows, and various types of floodplain forest (Figures 8c-d).

Figure 9 illustrates two recent examples of meander cutoff, oxbow and side channel formation from the 1970s to 1990s. Recent M.S. thesis research by Heather Pierce and Dr. Melinda Daniels of the University of Connecticut, confirms that the Housatonic has undergone considerable channel migration from the 1940s through 2001, with particularly dramatic changes during the 1970s. Among other findings, this research highlights that current geofluvial models do not adequately predict the amount of channel migration that was observed during the study period. Scientists are only beginning to understand complex riverine systems such as the Housatonic, so there is a great deal of uncertainty about the effects of any attempts by humans to manipulate

these systems. The implications of this uncertainty for the remediation selection process are discussed later in this letter.

In short, for these floodplain ecosystem processes to continue to maintain biological diversity, the stream banks must be deformable—that is, the river must be able to shape its floodplain and erode and deposit sediment. ***In the absence of channel migration, floodplain oxbows and wetlands will gradually fill with sediment over time, and the diverse mosaic of wetlands in different states of succession will be lost.***

Thus, it is important to consider carefully the uniqueness of the Housatonic River system, including the severity of such a loss on the ecology and biodiversity of the Commonwealth and Southern New England, when selecting a remedy for Rest of River. We cannot stress enough that there simply are no other rivers in Massachusetts (and few in New England) of the size of the Housatonic with the kind of floodplain dynamics illustrated in Figures 7 through 9. These defining characteristics of the Housatonic River, in turn, weigh heavily in the Commonwealth's development of its proposed remediation approach.

Reduction of Human Health Risks – A Commonwealth Priority

The Commonwealth strongly supports remedial alternatives that reduce the level of risk to human health from the PCBs in the system. The Human Health Risk Assessment (HHRA) report for the Rest of River (ROR) evaluated three primary exposure scenarios through which people may be exposed to PCBs, including direct contact with soil and sediment during recreational, residential, commercial and agricultural activities in the floodplain; consumption of fish and waterfowl taken from the river; and consumption of agricultural products produced in the floodplain such as milk, eggs and plants. The results of the HHRA demonstrated that remedial actions for the ROR are necessary to reduce human health risks.

The revised CMS presents an analysis of the ability to achieve certain human health risk standards through a combination of various sediment and floodplain alternatives. For consumption of agricultural products, all proposed alternatives will meet acceptable risk standards, including the Monitored Natural Recovery (MNR) option. For consumption of fish and waterfowl taken from the river, none of the proposed alternatives, including those that remove a large amount of material, will allow fish and waterfowl to be safely consumed within a reasonable time period. While we recognize some alternatives eventually achieve this goal faster than others, all the time periods are lengthy (e.g. within 50 to 100 years in some cases). In the short-term, these risks can be avoided by maintaining and further strengthening existing institutional controls.

For direct contact with soil and sediment, current conditions do not meet human health standards in many of the floodplain areas and in one sediment area (located within the banks of Woods Pond). Using highly protective assumptions about human health exposure frequencies, EPA has established a range of acceptable concentration limits to guide the remedy selection. The Commonwealth supports this range, and advocates remediation to meet the EPA's upper bound limit of ten minus four human health excess cancer risk, and further remediation to add a layer of protection when it can be done without causing significant environmental damage.

Preserving the Special Character of the Housatonic River Ecosystem – A Commonwealth Priority

Earlier in this letter the Commonwealth highlighted the uniqueness and importance of the Housatonic River ecosystem, underscoring its exemplary value from a MESA and biodiversity perspective and the dynamic nature of the meandering action of the river in creating habitats. Thus, our assessment of the acceptability of each remedial alternative in the revised CMS focused on the extent to which the alternative would result in short and long term adverse impacts on these defining ecological features.

General Conclusions

As a result of our review, the Commonwealth has reached the following general conclusions in regard to the expected impact of the range of remediation alternatives in the revised CMS (except for monitored natural recovery) on the Housatonic River ecosystem:

1. Extensive bank and river bottom stabilization associated with sediment remediation alternatives SED 3 – SED 10 (+/-14 linear miles) are proposed solely to address perceived ecological risks from PCB contamination; none of these proposals are needed to meet EPA's human health goals. Yet all of these alternatives will have a particularly severe and long-lasting impact on the integrity of the Housatonic River-floodplain ecosystem as well as on state-listed species and their habitats.

2. The short and long-term impacts of floodplain remediation on state-listed species and the Housatonic River-*floodplain* ecosystem, are in some cases substantial and should be avoided, but, are generally of less of a long term concern when compared to the scope and long lasting impact resulting from large scale bank and river bottom stabilization in the PSA.

   Consistent with EPA's own remediation guidance, the Commonwealth believes that the long and short term benefits of meeting certain Ecological Interim Media Protection Goals ("IMPGs") must be weighed against the environmental damage that would be incurred through the remediation actions necessary to achieve those IMPGs. (EPA 2005, *Contaminated Sediment Remediation Guidance for Hazardous Waste Sites*; see also NRC 2001, *A Risk Management Strategy for PCB-Contaminated Sediments*).

3. The Commonwealth believes that any potential benefits associated with remediation to achieve ecological IMPGs would be far outweighed by the short and long-term damage to the meandering character of the Housatonic River ecosystem and to the associated state-listed species and their habitats. Consequently, as discussed elsewhere in this letter, the selected ROR remedy should focus on eliminating public health hazards associated with direct contact exposure to PCBs.

Impacts on the integrity of the Housatonic River and Floodplain Ecosystem

As discussed in detail earlier in this letter, the natural riverine processes of meandering, erosion, and channel migration lead to creation of floodplain wetlands and landforms including levees, side channels, backwaters, sloughs, and oxbows. These wetlands and landforms develop and evolve on a time scale of tens to hundreds of years. The resulting floodplain comprises complex heterogeneous patches (i.e., "mosaics") of different successional stages, including herbs, grasses, deciduous trees, and conifers, creating high species diversity.

The effects of armoring and stabilizing the river banks on the floodplain wetlands created by the above natural processes are as follows:

- First and foremost, the armoring or stabilization of the banks will eliminate the meandering and channel migration of the river. The affected portions of the river would evolve into a single-thread channel without the complex mosaic of floodplain wetlands that currently exist.

- If the channel migration process is eliminated, the existing wetland habitats will eventually fill in with fine sediment, re-forest, and meld into one homogenous habitat, with lower species diversity.

- The species that rely on the mosaic of wetlands and plants for foraging, refugia, and/or rearing will also vanish.

- These habitats, functions, and values cannot be fully re-created or restored by human intervention, because the habitats result from interactions of complex processes operating over hundreds of years.

- "Soft" engineering methods for bank stabilization will have the same impact on floodplain wetlands as bank armoring. Both are designed to prevent erosion and channel migration. While soft engineering methods may look better aesthetically, they will not prevent or mitigate the above described impacts to floodplain wetlands.

- Additional functions and values that would be lost or degraded by armoring or stabilizing the river banks include:

    - Energy dissipation (slowing down the flood waters);
    - Surface and subsurface water storage and exchange (making water available to animals and underground aquifers);
    - Landscape hydrologic connections (connecting habitats together for wildlife and plants);
    - Trapping, retaining, and cycling of elements and compounds (e.g. nutrients)
    - Particulate detention (holding sand, silt, and clay in the floodplain);
    - Organic matter transport (moving organic matter around);
    - Detrital biomass (creating and storing decaying leaves and other organic debris);
    - Spatial structure of habitats (providing multiple places for wildlife and plants to live);
    - Connectivity of habitats and movement routes (providing a means of connecting different types of habitats together and allowing movement of animals).

In short, the impacts associated with the implementation of the SED 3–SED 10 remediation alternatives would have long-lasting and potentially irreversible adverse effects on the natural process of channel migration. This result would, in turn, fundamentally alter the integrity of a riverine system that supports and maintains the diversity of unique ecological features, species and habitats that are the hallmarks of the Housatonic River in the PSA.

In the floodplain, the impacts associated with excavation include alteration of soils, vegetation, and hydrology in certain wetland types such as marshes and vernal pools. This outcome will make successful restoration challenging, and the loss of mature floodplain forest will take many decades to regenerate. Moreover, excavation of the floodplain results in habitat fragmentation associated with road and staging area construction, causes impacts to state-listed species, and increases the risk of introducing invasive species. For these reasons, the Commonwealth's remedial approach prioritizes the excavation of floodplain areas for the protection of human health, and avoids intrusive work when performed solely for perceived ecological benefit.

Impacts to State-Listed Species protected by MESA

The revised CMS contains detailed analyses of the extent to which various remedial alternatives will impact state-listed species and their habitats, as well as an analysis of the feasibility of restoring various habitat types, post-remediation. Although the Commonwealth disagrees with some of the methods used[2], and some of the species-specific impact analyses, the Commonwealth agrees with the general conclusion that except for monitored natural recovery, all of the remedial alternatives identified in the revised CMS will result in the "take" of numerous state-listed species.

For example, in a preliminary analysis, we estimate that combined alternatives SED3/FP3 and SED10/FP9 may result in the take of 26 and 22 state-listed species, respectively. We further determined on a preliminary basis that SED3/FP3 and SED10/FP9 have the potential to result in a significant impact to the local populations of 9 and 6 state-listed species respectively. As discussed earlier in this letter, we are particularly concerned about the potential for moderate to severe long-term impacts to the 15 species found in "core areas" in the PSA (listed in Table 2), which, due to their distribution, life history characteristics, and/or challenges associated with restoration of their habitat, are particularly vulnerable to remediation activities.

Compliance with Location-Specific ARARS such as MESA is Crucial to Avoiding, Minimizing and Mitigating Impacts of the ROR Remedy on the Housatonic River System

During this CMS process, the Commonwealth has consistently commented to EPA and GE that the selected remedy's compliance with state applicable and relevant or appropriate standards (ARARs) is essential to ensuring that impacts resulting from the remedy are avoided, minimized and mitigated consistent with the substantive requirements of the Commonwealth's applicable and relevant statutes, regulations and requirements. One such ARAR is the Massachusetts Endangered Species Act (MESA). We have also made clear our position that GE has a legal obligation to comply with state ARARs, independent of the prior settlement of the Commonwealth's NRD claim.

The Commonwealth notes that in section 2.1.3 of the revised CMS (pp. 2-5 to 2-9) GE argues that only those federal and state laws and regulations that specifically address "hazardous substances that will remain on-site or the media containing such substances" constitute ARARs. GE's position is that federal or state laws or regulations that require avoidance or minimization of non-pollutant impacts of the remedy or that require the restoration of or compensatory mitigation for resources impacted by the contamination or the implementation of the ROR remedy are not ARARs. GE also argues that any resource impacts caused by the contamination or the implementation of the remedy were addressed by the settlement of the NRD claim.

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[2] In the revised CMS, GE states that, "For most species with Priority Habitat in Reaches 5 and/or 6, based on the location and extent of Priority Habitat and the foraging and dispersal characteristics of the species, it appears that the longitudinal extent of the local population is also fairly represented by the mapped Priority Habitat area(s) in those reaches." This would mean that, in many cases, the "local population" would be confined to one or more portions of the PSA. As acknowledged in the revised CMS, the NHESP determined that GE's approach to defining the local population may be "overly narrow" in some cases, and this remains the position of the NHESP. Nonetheless, the NHESP believes that the more narrow approach to determining "Impact on Significant Portion of the Local Population" applied by GE in the revised CMS is valid for the more narrow purpose of evaluating impacts of proposed remedial alternatives on those portions of the local population (i.e. subpopulations) located within Reaches 5 and 6 (and Reaches 7 and 8, as applicable). In summary, although the Commonwealth may disagree on the some of the species-specific conclusions regarding "significant impact" presented by GE in Appendix L, and would characterize them as analyses of significant impact on local *sub*populations, we believe that it is useful approach when weighing the severity of impacts to state-listed species against the potential benefits of meeting the ecological IMPGs.

Thus, in section 5.4 (p. 5-95) and in the introduction to Appendix L to the revised CMS (the MESA assessment of the remedy alternatives, p. IN-3), GE concludes that because MESA does not specifically address hazardous substances that will remain onsite or the media containing them, it is not an ARAR. Consequently, GE chose not to evaluate the potential application of MESA's long-term Net Benefit provisions associated with a take of a state-listed species to the remedy alternatives, notwithstanding EPA's express direction to GE to do so.

In setting out its ARAR analysis in section 2.1.3 (p. 2-5), GE states that it considered EPA's 1989 guidance document for identifying ARARs. This guidance includes a discussion of the federal Endangered Species Act ("ESA") as an ARAR, and states that substantive compliance with the ESA *"means that the lead agency must identify whether a threatened or endangered species, or its critical habitat, will be affected by a proposed response action. If so, the agency must avoid the action or take appropriate mitigation measures so that the action does not affect the species or its critical habitat."* See EPA's CERCLA Compliance with Other Laws Manual: Part II. Clean Air Act and Other Environmental Statutes and State Requirements (August, 1989), p. 4-12. EPA makes clear that not only is the federal ESA an ARAR that is applicable to a *response action* that will affect a federally-listed species or its habitat, but also that any potential or actual impacts caused by the response action must be avoided or mitigated. That same common sense analysis applies to other location-specific ARARs such as MESA.

Accordingly, the Commonwealth reiterates its position that (1) ARARs include requirements that address the resource areas, species and their habitats that are impacted by the implementation of the remedial action; and (2) GE has a legal obligation - independent from the resolution of the NRD claim - to fully restore and mitigate for all resources impacted by the contamination or the implementation of the ROR remedy, as required by the federal and state ARARs. We therefore request EPA to affirmatively reject GE's position on the record as part of its response to the revised CMS.

The Commonwealth Proposal

The Commonwealth proposes a multi-phased, long term remedy for the Rest of River that immediately addresses human health risks for direct exposure to sediment and floodplain areas; includes ongoing monitoring and the potential for continued remediation to ensure ongoing compliance with human health standards; and requires the ongoing evaluation and potential implementation of innovative remedial approaches and technologies. The remedial proposal is fully consistent with state and federal regulatory frameworks and consists of the following six significant components:

1. **Remediation of specific floodplain areas and one sediment exposure area identified in the CMS to address human health risks for direct exposure to sediment and floodplain soils.**

   The Commonwealth has identified approximately 57 acres in the floodplain to be remediated to meet human health risk goals. One of the proposed floodplain alternatives, (FP 4) also identifies 15 acres to achieve ecological cleanup goals for amphibians in vernal pools. The Commonwealth does not propose to remediate the amphibian areas, because this would cause more ecological harm than benefit. We believe that restoration of these vernal pools will not result in the actual replication of the vernal pools and associated amphibian communities that existed prior to the removal of the pools.

   Within the 57 acres identified in the floodplain to meet human health risk standards, the NHESP identified sensitive areas that house particularly vulnerable state-listed species, and other areas of extremely important ecological value. The Commonwealth proposes that no excavation be performed in these areas; rather, that risk standards be addressed in these core habitat areas through the implementation of institutional controls including, but not limited to, advisories, educational materials, notifications, boot washing stations, signage, hygiene and laundering

instructions, etc. The Commonwealth proposes that the remaining acres be remediated through a combination of soil removal techniques as well and/or the implementation of institutional controls, particularly where access to the areas may cause significant impact to the ecology of the system. However, we stress that these remaining acres also have ecological value, and that intrusive work within these areas should be judicious and approached as a last resort. The Commonwealth strongly urges EPA and GE to work closely with the state at the design phase of the project to help refine the remediation work and minimize ecological impacts in these areas, and to take maximum advantage of achieving acceptable average concentrations by performing more excavation in areas of high concentrations and/or low ecological value, and less excavation in areas of low concentrations and/or high ecological value. The Commonwealth is finalizing a map that shows these areas, and will submit it shortly as an addendum to these comments.

In addition to the floodplain areas, the Commonwealth's conceptual remedy provides for the remediation of one sediment area located on the banks of Woods Pond referred to as SA 3 in the CMS. This is the only sediment area that does not meet human health risk standards for direct contact with sediment, and this area can be remediated without significant environmental damage. SA 3 encompasses approximately 11 acres and extends approximately 6 meters from the shore of Woods Pond. The Commonwealth recommends that this area be remediated as proposed in the SED 10 remedy presented in the CMS.

Due to the ecological impacts resulting from remediation of the river and its banks as described above, no bank work for the Housatonic River is proposed for this phase of the cleanup as it is not needed to address immediate human health risks. However, the Commonwealth's proposal does recognize that future remediation of the river and banks may be necessary to maintain conditions protective of human health, based upon the results of future monitoring and assessment (See also Paragraph 4 below).

2. **Bulk source removal of the majority of contaminated media in Woods Pond to an average of 1 mg/kg (1 part-per-million, or 1 ppm).**

The Commonwealth believes that removal of PCBs in Woods Pond will not cause significant adverse effects to rare and endangered species and their habitats. This is because there are no state-listed rare species habitats within the pond or surrounding area, and the non-listed species would actually benefit from sediment removal by restoring open-water habitat and water quality such as dissolved oxygen. Given the absence of environmental harm, it is a priority for the Commonwealth that GE remove a significant source of PCB material in the pond. After careful review of the costs and benefits of various removal options, the Commonwealth believes that a removal to obtain a pond-wide average of 1 ppm with no area exceeding 6 ppm strikes the right balance. Removal action to achieve a lower concentration than that encounters significant diminishing returns. For example, we estimate that to achieve 1 ppm on average, removal of approximately 286,000 cubic yards is needed. But to achieve 1 ppm in all areas of the pond would require doubling that amount of excavation to dredge 575,000 cubic yards. Most of the contamination in the ROR system is located between the confluence of the East and West branches of the river and Woods Pond Dam. Some of the highest concentrations of PCBs in the ROR system are found within Woods Pond. Further, based on approximations of mass estimated during previous work[3], approximately 15 to 25% of the mass in the entire ROR system is in Woods Pond itself. Remediation to an average of 1 ppm level would result in the approximate removal of 92% of the PCBs in the pond. A significant dredge of sediment and PCB mass from the pond will also increase Woods Pond's PCB trapping efficiency, thereby improving and enhancing the natural ability of the pond to capture contaminated sediment eroding from the

[3] *Housatonic River – Rest of River RCRA Facility Investigation Report*, September 2003

upstream banks[4]. In addition, removing significant quantities of PCBs behind Woods Pond Dam will protect public health against downstream contamination if there were ever a dam failure. As an ancillary benefit, this dredge would deepen the pond from its current depth of 2.5-5.5 feet to a range of 4.7-9.8 feet, thereby greatly enhancing recreational opportunities.

3. **Ongoing evaluation of innovative remedial approaches and technologies.**

A significant problem with the proposed remedies is that there is no detailed mechanism for the on-going evaluation and application of innovative remedial approaches and technologies. The Commonwealth proposes that GE be required to evaluate on a regular basis the availability of innovative remedial approaches and technologies that can be utilized to reduce human health and ecological risks without unacceptable consequences to the ecosystem, and that GE implement, to the extent feasible, such approaches and technologies should they become available.

4. **Ongoing monitoring and remediation as needed to meet and maintain human health standards and to remove accumulated sediment behind Woods Pond Dam.**

The Commonwealth's conceptual remedy requires compliance with human health standards on an ongoing basis. Accordingly, this proposal requires GE to perform: a) ongoing monitoring and assessment of areas remediated under Paragraphs 1 and 2 above; b) additional remediation to the extent necessary to meet and maintain human health standards as determined by such monitoring and assessment; and c) removal of excessive amounts of contaminated sediment that accumulate behind Woods Pond dam to sustain an average of 1 ppm throughout the pond.

Continuing source control upstream of the Rest of River system as well as the work proposed as the first phase of this remedy (See also Paragraphs 1 and 2 above) will likely alter PCB levels, and re-assessment will allow for the collection of data that are representative of these new conditions and more applicable for subsequent remedial decisions.

Monitoring and assessment will be conducted to evaluate how successful/effective the preliminary measures have been to eliminate the human health risks and control the continuing sources. This could include qualitative evaluation of the institutional controls on consumption of fish from the river, quantitative assessment of potential recontamination of the floodplain, and a quantitative evaluation of the effectiveness of a Woods Pond sediment trap. Secondly, the assessment will evaluate the potential for implementing additional response actions to address the remaining contamination in the river and floodplain, considering new technologies and methodologies, as well as the success of similar restoration projects on the Housatonic River (e.g., cleanup and restoration of vernal pools) or on analogous river systems. Monitoring will include routine sampling and analysis of fish tissue, river sediment, Woods Pond sediment, and floodplain soil. Periodic evaluations of the ecosystem (i.e., fluctuations of threatened/endangered species and habitat changes) will also be necessary. The assessments will continue until the conditions in the river are documented to pose no significant risk to human health and the environment. It is a long-term commitment by the Commonwealth, EPA and GE.

5. **Implementation of more comprehensive institutional controls for consumption of fish and waterfowl taken from the river.**

Although there are institutional controls in the form of consumption advisories currently in place, the Commonwealth endorses the implementation of a more comprehensive program of institutional controls, including, but not limited to, implementation of extensive public

[4] The dredge of the pond consists of the entire 60 acres in area and depths throughout where PCBs are detected.

educational programs and providing incentives for those relying on fish and waterfowl for sustenance purposes. In general, we recommend improved signage, regular local newspaper advertisements and other informational literature and outreach programs.

Problems cited from the past measures have included vandalism of signage and fencing, inadequate signage, and fisherman ignoring biota consumption advisories. Also, many people were reportedly unaware of prohibitions or risks, indicating a need for added public outreach. In addition to signage we recommend regular inspections of these areas to ensure signs are present and in good condition, and in order to document areas where frequent activity is occurring. In these frequently visited areas, there needs to be better communication through outreach, public notice, best management practices, and other measures. Overall, there needs to be more frequent presence in these areas. As was done with the residential fill program, fact sheets should be made available at all access points and agency websites. Any institutional controls applied will need to be re-visited based on information gathered from regular inspections and public outreach.

To improve the existing array of institutional controls, we recommend that EPA require GE to submit for approval an institutional control program. Under such a program, GE should perform an ongoing review of the current uses, and any new specific recreational uses, of the various exposure areas to determine and implement notice, education and best management practices to minimize exposure to users and visitors to these properties. GE would further monitor (at a frequency to be proposed by GE and approved by the agencies) effectiveness of this program, report to the agencies and make adjustments to further reduce risk.

6. Disposal of all removed material out of state to an existing approved facility utilizing rail transport.

The Commonwealth ***vigorously*** opposes two disposal options outlined in the revised CMS that call for disposal of removed material to be sited within Berkshire County. These two options include a Confined Disposal Facility (CDF) to be built within a local waterbody and the installation of an Upland Disposal Facility constructed in an area near the River. The Commonwealth opposes the creation of new landfills, given that there are existing, off-site, permitted disposal facilities that are equipped to accept this material.

Woods Pond is a potential location for both the CDF and the Upland Disposal Facility[5]. However, as mentioned previously in this letter, the Upper Housatonic River Area has been designated by the Commonwealth to be an ACEC. The ACEC includes all nine inland resource features as designated by regulation, including fisheries, wetlands and surface waters, water supply areas, floodplains and steep slopes, agricultural and forested areas, historical and archaeological resources, wildlife and rare species habitats, and public recreational and natural areas. A disposal facility in or around Woods Pond is clearly not appropriate in this type of area, and the prohibition against siting a landfill in an ACEC has previously been identified as an ARAR by the Commonwealth. In addition, installation of a disposal facility would not meet the requirements of several of the Commonwealth's regulations including the Massachusetts Water Quality Certification regulations (314 CMR 9.06) and the Massachusetts Wetlands Protection Act regulations (310 CMR 10.00). The CDF would also reduce necessary flood compensatory storage area.

[5] There are also two additional upland disposal facility locations identified including Forest Street in Lee and near Rising Pond.

Installation of a disposal facility in Berkshire County would also have extremely negative impacts to the communities surrounding the facility including economic, aesthetic, recreational, and potential health impacts should the facility fail. Further, construction of yet another such facility just expands the number of locations that would be affected by PCB-contamination, requiring additional long-term monitoring, operation and management beyond what is already a long-term burden on the community, and which runs counter to the concept of the anti-degradation provisions incorporated into the Massachusetts site cleanup regulations. The costs (including the social costs) of such a facility must be weighed against the simplicity and finality of disposal of this material in a pre-existing facility. The Commonwealth therefore supports disposal at an existing, out of state disposal facility properly permitted to receive such materials, and believes that rail is a feasible alternative to transport the material.

The current freight rail system owned by Housatonic Railroad Company, Inc. runs adjacent to the portions of the Housatonic River subject to removal actions under our concept, including Woods Pond. GE evaluated the feasibility of utilizing rail transport in the CMS but determined to not consider it due to "logistical issues". The Commonwealth disagrees that logistical issues prohibit the use of rail for transport of media. In fact, the CMS presents the results of an evaluation examining the feasibility of using rail by a consultant hired by GE. That consultant concluded that rail transport of excavated materials would be technically feasible. Based on our experience on other projects, the Commonwealth believes that rail is a cost-effective and efficient way to transport contaminated media.

Conclusion

In conclusion, the Commonwealth Proposal is consistent with EPA's goal of Risk Management to achieve Overall Protection of Human Health and the Environment, and is superior to any of the various proposals made to date in balancing protection of public health and conservation of natural ecosystems. As acknowledged by EPA, a sound remediation approach involves complex balancing of competing interests and values. By taking a common sense, incremental approach to cleaning up the Housatonic River, we can protect the health of our citizens while preserving the integrity of this unique place for the benefit of future generations. We urge you to incorporate our Proposal into your final disposition of this matter, which is of vital importance to the Commonwealth.

We appreciate the opportunity to present our views on this important matter.

Sincerely,

Richard K. Sullivan, Jr.
Secretary, Executive Office of Energy
and Environmental Affairs

Kenneth L. Kimmell
Commissioner, Massachusetts
Department of Environmental Protection

Mary Griffin
Commissioner, Massachusetts
Department of Fish and Game[6]

ecc:	GE –	Michael Carroll, Andrew Silfer
	EPA –	Curt Spalding, Ira Leighton Richard Cavagnero, Tim Conway, Dean Tagliaferro, Holly Inglis
	MassDEP –	Mike Gorski, Eva Tor, Jeff Mickelson, Paul Locke, John Ziegler
	DFG/DFW –	Wayne F. MacCallum, Mark Tisa, Jon Regosin, Beth Lambert, Richard Lehan

Appendix A – Tables & Figures
Appendix B – NHESP 2010 Report entitled "Rare Species and Natural Community Surveys in the Housatonic River Watershed of Western Massachusetts"

[6] These comments include the input of a team of staff biologists at the Natural Heritage and Endangered Species Program within DFG, and engineers and risk assessment specialists at MassDEP. The Secretary and the Commissioners have relied upon their staffs' respective technical expertise in formulating this proposal.

Appendix A

Tables & Figures

Table 1. State-listed species occupying the PSA

Common Name	Scientific Name	Status
Foxtail Sedge	*Carex alopecoidea*	Threatened
Hairy Wild Rye	*Elymus villosus*	Endangered
Bald Eagle	*Haliaeetus leucocephalus*	Endangered
Tuckerman's Sedge	*Carex tuckermanii*	Endangered
Zebra Clubtail	*Stylurus scudderi*	Special Concern
Bur Oak	*Quercus macrocarpa*	Special Concern
Bristly Buttercup	*Ranunculus pensylvanicus*	Special Concern
Common Moorhen	*Gallinula chloropus*	Special Concern
Jefferson Salamander	*Ambystoma jeffersonianum*	Special Concern
Ostrich Fern Borer	*Papaipema sp. 2*	Special Concern
Rapids Clubtail	*Gomphus quadricolor*	Threatened
Arrow Clubtail	*Stylurus spiniceps*	Threatened
Gray's Sedge	*Carex grayi*	Threatened
American Bittern	*Botaurus lentiginosus*	Endangered
Crooked-stem Aster	*Symphyotrichum prenanthoides*	Threatened
Water Shrew	*Sorex palustris*	Special Concern
Spine-crowned Clubtail	*Gomphus abbreviatus*	Endangered
Narrow-leaved Spring Beauty	*Claytonia virginica*	Endangered
Triangle Floater	*Alasmidonta undulata*	Special Concern
Brook Snaketail	*Ophiogomphus aspersus*	Special Concern
Wood Turtle	*Glyptemys insculpta*	Special Concern
Mustard White	*Pieris oleracea*	Threatened
Wapato	*Sagittaria cuneata*	Threatened
Riffle Snaketail	*Ophiogomphus carolus*	Threatened
Intermediate Spike-seed	*Eleocharis intermedia*	Threatened

Table 2. State-listed species for which Core Areas were delineated.

Common Name	Scientific Name	Status
American Bittern	*Botaurus lentiginosus*	Endangered
Common Moorhen	*Gallinula chloropus*	Special Concern
Wood Turtle	*Glyptemys insculpta*	Special Concern
Triangle Floater	*Alasmidonta undulata*	Special Concern
Rapids Clubtail	*Gomphus quadricolor*	Threatened
Riffle Snaketail	*Ophiogomphus carolus*	Threatened
Ostrich Fern Borer	*Papaipema* sp. 2	Special Concern
Mustard White	*Pieris oleracea*	Threatened
Gray's Sedge	*Carex grayi*	Threatened
Tuckerman's Sedge	*Carex tuckermanii*	Endangered
Bur Oak	*Quercus macrocarpa*	Special Concern
Bristly Buttercup	*Ranunculus pensylvanicus*	Special Concern
Narrow-leaved Spring Beauty	*Claytonia virginica*	Endangered
Hairy Wild Rye	*Elymus villosus*	Endangered
Wapato	*Sagittaria cuneata*	Threatened

Figure 1. Housatonic "PSA" habitat sections.

Figure 2. Regulatory habitat within the PSA.

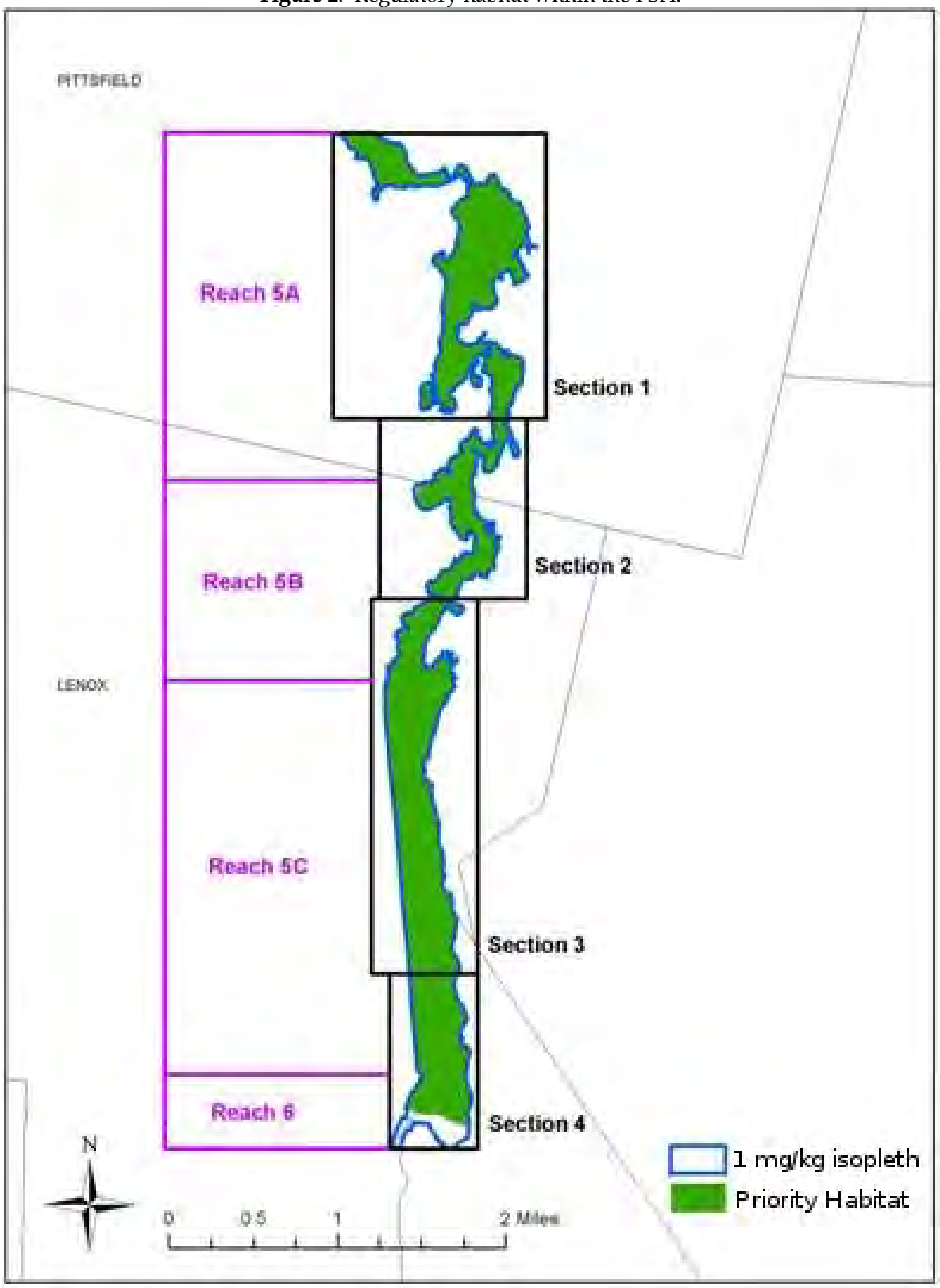


Figure 3. Overlap of Priority Habitats in the PSA.

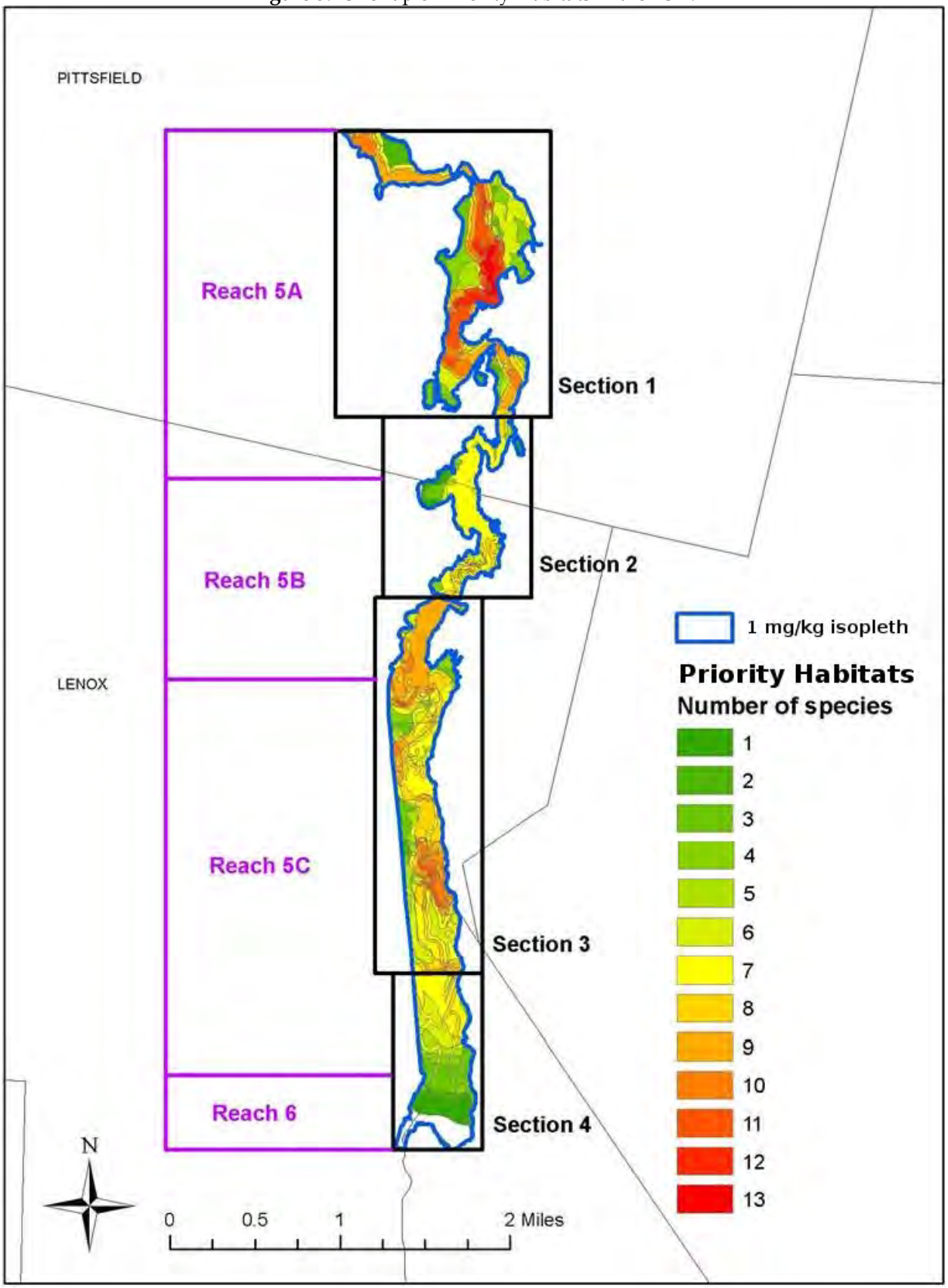


Figure 4. Overlap of Priority Habitats in habitat sections 1 and 2 of the PSA.

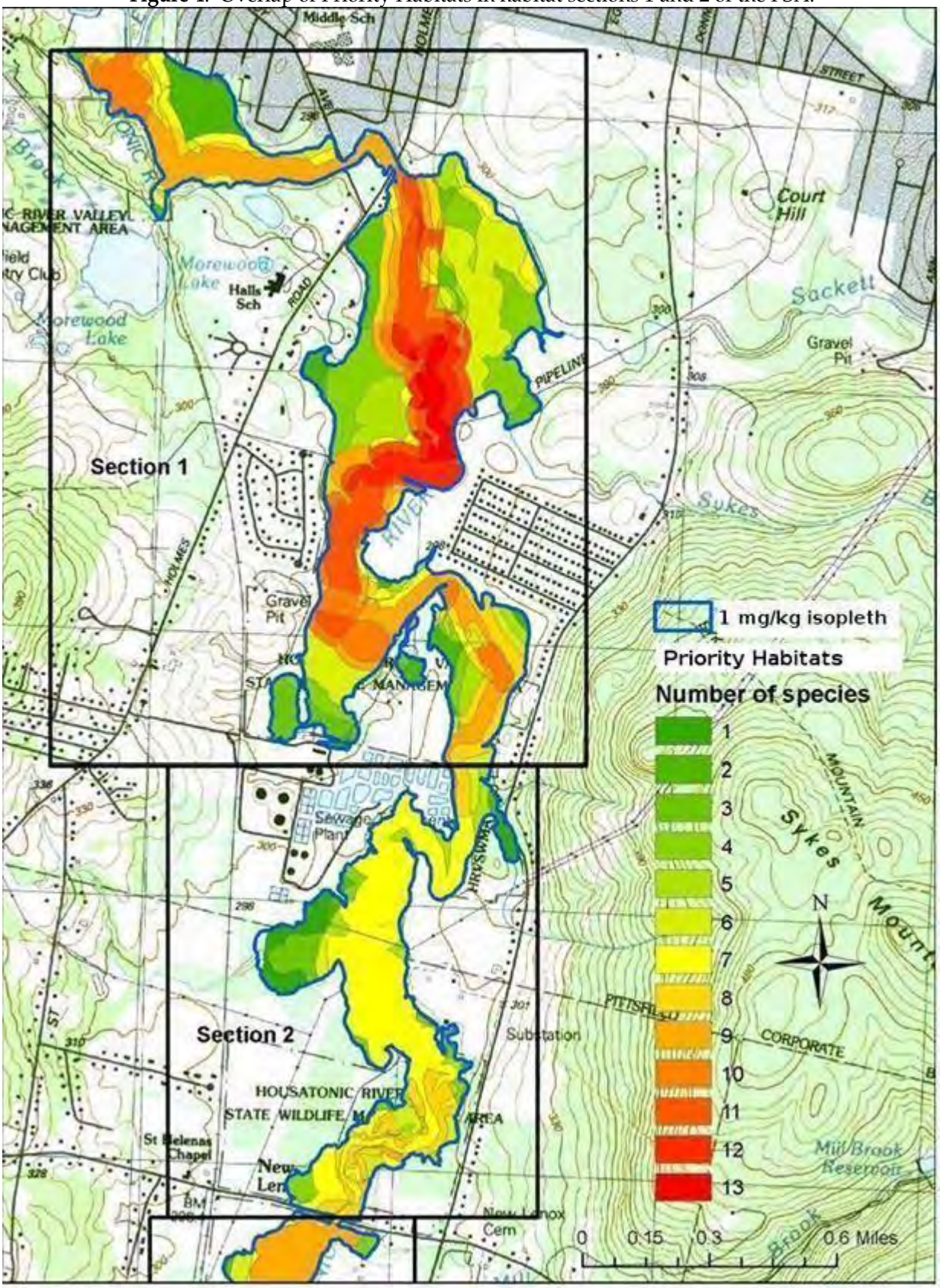


Figure 5. Overlap of Priority Habitats in habitat sections 3 and 4in the PSA.

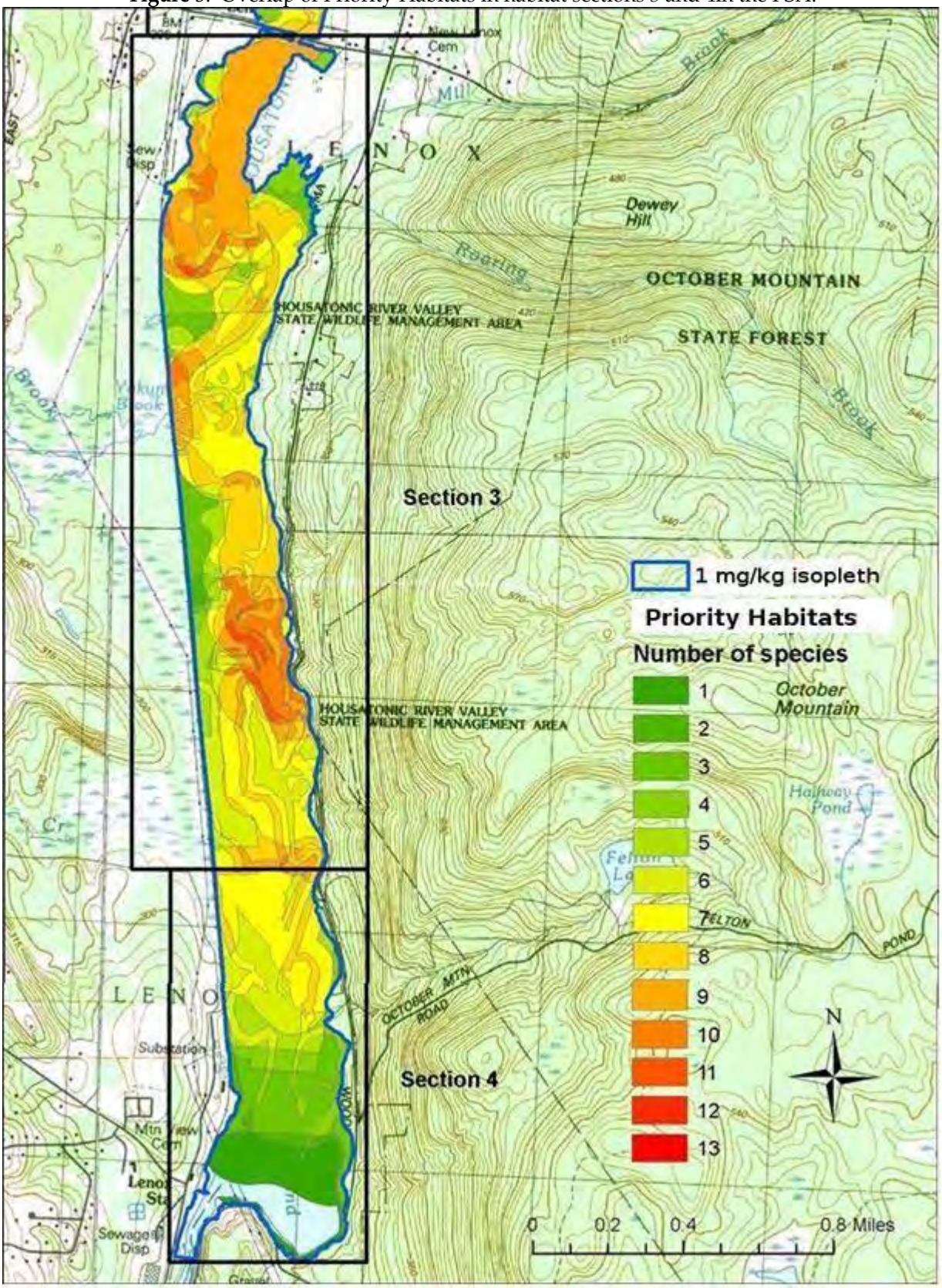


Figure 6. Core Areas for 13 species within the PSA.

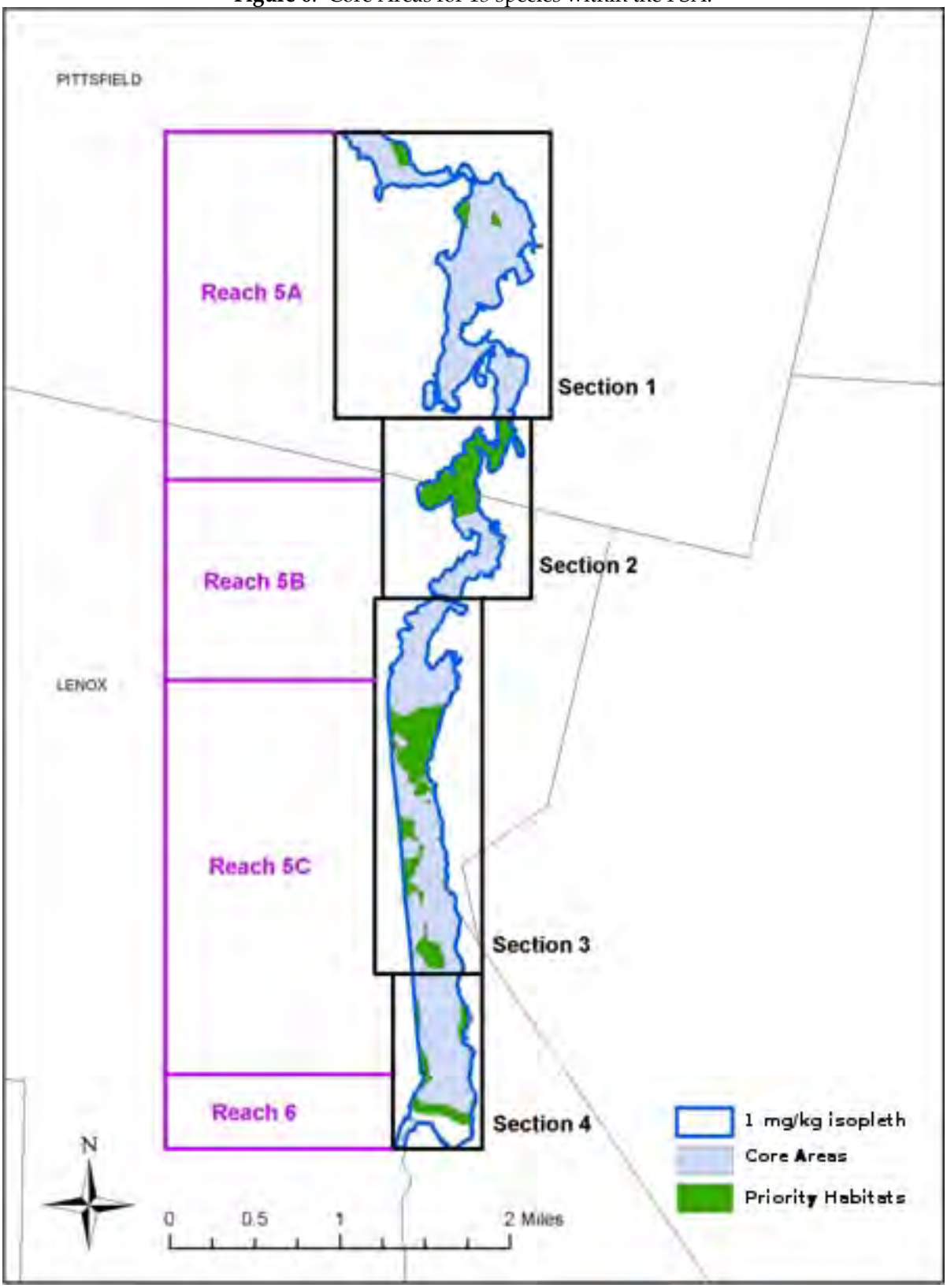


Figure 7. Meander, Oxbow, and Floodplain Processes

Housatonic River

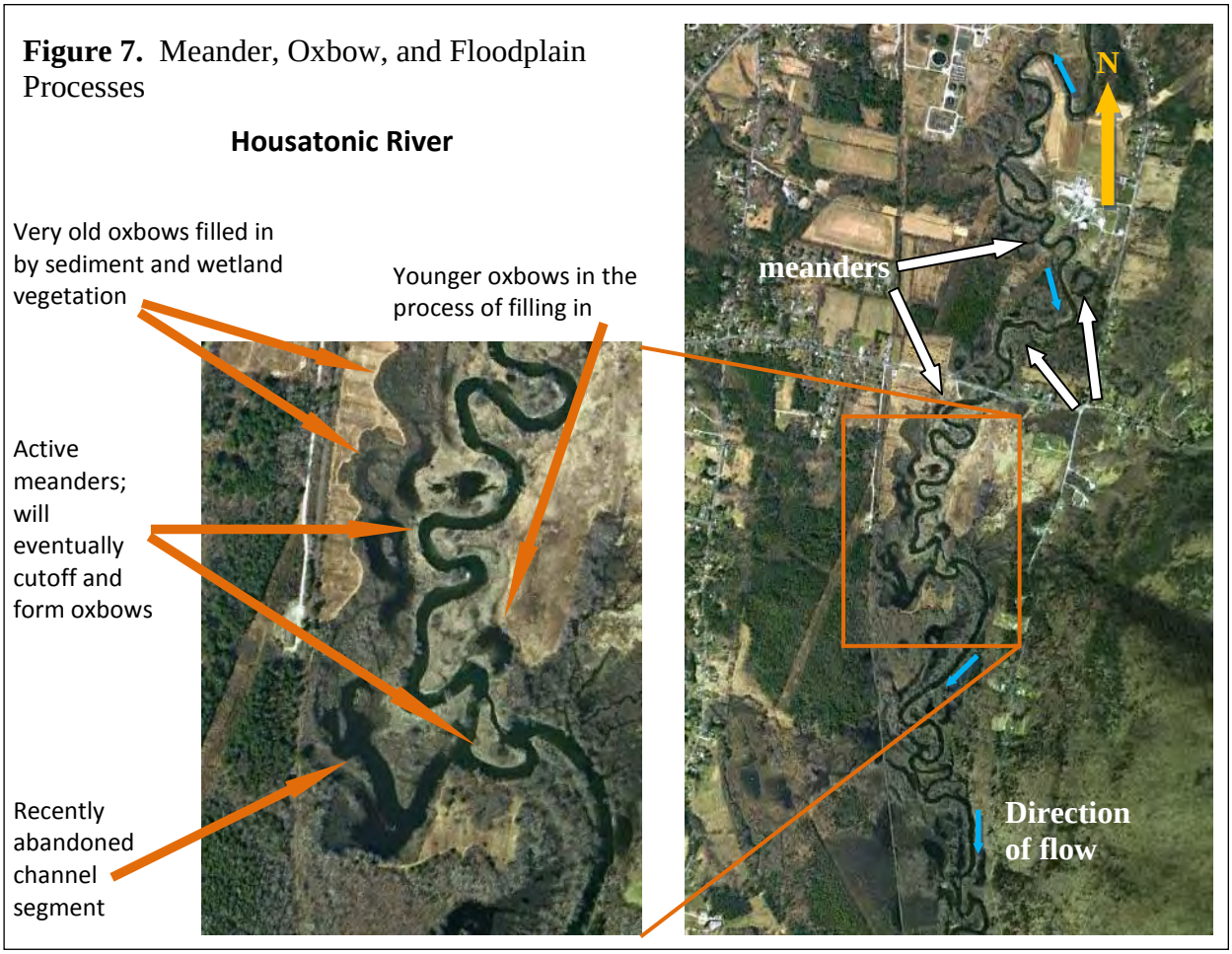
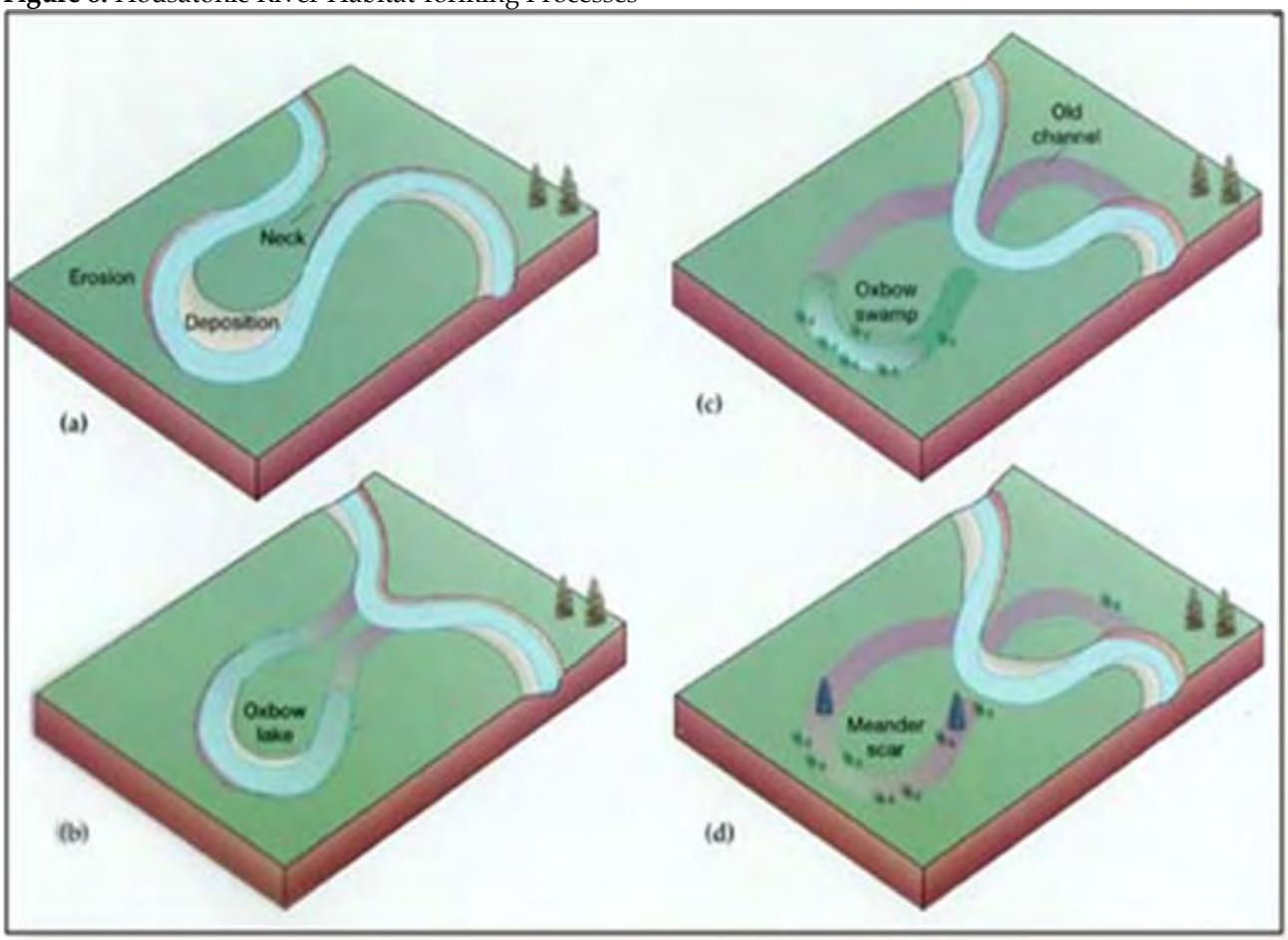
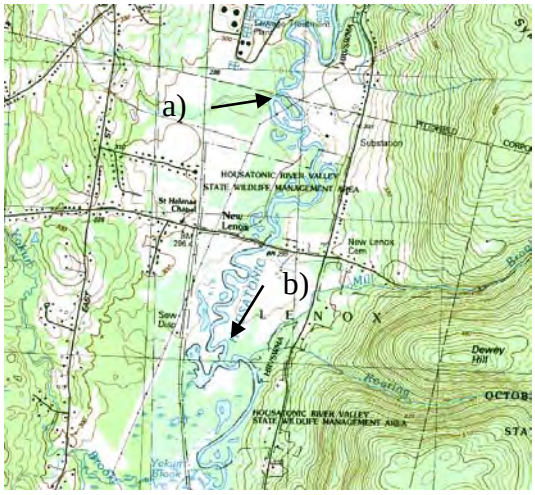


Figure 8. Housatonic River Habitat-forming Processes

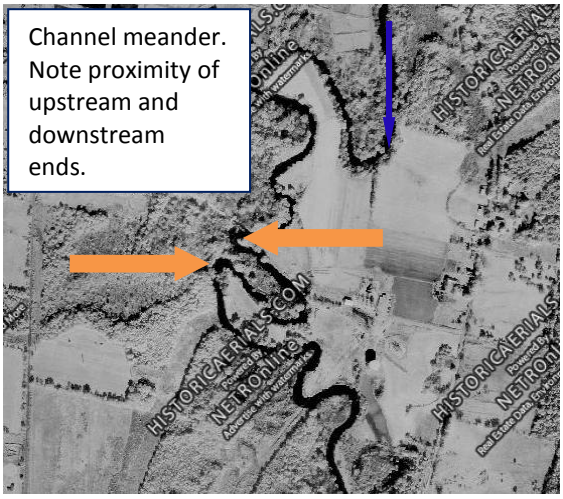


(Central Michigan University College of Science and Technology)

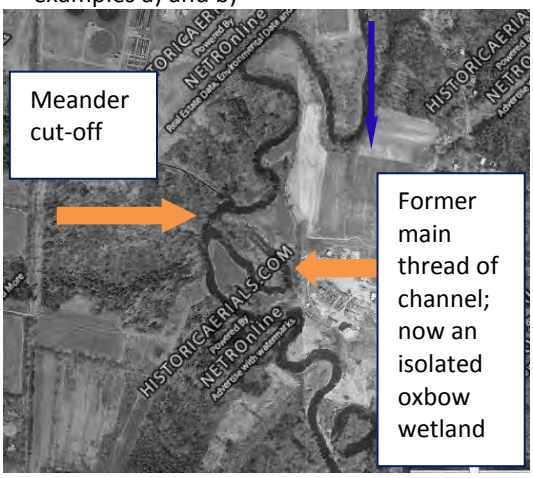
Figure 9. Recent Examples of Meander Cutoff and Side Channel Formation in the PSA



a. Locations of post-1971 channel change examples a) and b)



b. Example a. 1971 aerial photo of the Housatonic River. Screen shot from aerialphotos.com.



c. Example a. 1997 aerial photo of the Housatonic River. Screen shot from aerialphotos.com.

d. Detailed view of meander cutoff from MassGIS 2005 aerial photo.

e. 1971 aerial photo. Arrow shows location of 1997 side channel.

f. 1997 aerial photo. Arrow shows location of new side channel.

Appendix B

NHESP 2010 Report

Rare Species and Natural Community Surveys in the Housatonic River Watershed of Western Massachusetts

Rare Species and Natural Community Surveys in the Housatonic River Watershed of Western Massachusetts

Natural Heritage and Endangered Species Program
Massachusetts Division of Fisheries and Wildlife

July 2010

Rare Species and Natural Community Surveys in the Housatonic River Watershed of Western Massachusetts

Prepared for:

Trustee Sub-Council for Massachusetts
Natural Resource Trustees for the GE/Housatonic River NRDAR Case

Massachusetts Executive Office of Energy and Environmental Affairs
and
United States Fish and Wildlife Service

In partial completion of Proposal 18:
"Rare Species Recovery on the Housatonic River"

Prepared by:

Natural Heritage and Endangered Species Program
Massachusetts Division of Fisheries and Wildlife
Route 135, Westborough, MA 01581

July 2010

Acknowledgments

This project was funded through the Natural Resource Damage Assessment and Restoration (NRDAR) Programs of the Massachusetts Executive Office of Energy & Environmental Affairs and the U.S. Fish and Wildlife Service, using funding via the Massachusetts Sub-Council of the Housatonic River Trustee Council under the auspices of the Massachusetts and Department of the Interior (DOI) Natural Resource Damage Assessment and Restoration (NRDAR) Programs, as part of a legal settlement with the General Electric Company for releasing polychlorinated biphenyls into the Housatonic River and its floodplain. The Trustee Representatives of the Massachusetts Sub-Council, Dale Young (EEA) and Veronica Varela (USFWS), provided encouragement and constructive oversight. Jennifer Loose Ryan wrote NHESP's original proposal. Thanks are due to Andrew Madden, DFW's Western District Manager, for providing housing for several biologists during their surveys. The many biologists contracted for the project are listed in the report. Many others have contributed for many years to the knowledge of the biodiversity of the Housatonic; this report built on the existing information without which this project would mean less and would have been much more difficult. Biodrawversity LLC worked with NHESP staff to analyze results of field surveys and produce the technical report. Photographers are credited throughout the report.

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Rare Species and Natural Community Surveys in the Housatonic River Watershed of Western Massachusetts

EXECUTIVE SUMMARY

The Housatonic River watershed is critical to biological conservation in Massachusetts. The Western New England Marble Valleys ecoregion that spans the lowlands of the Housatonic watershed is characterized by calcium-rich conditions that support some of the rarest plants, animals, and natural communities in the state. The watershed currently contains 110 plant species and 51 animal species protected by the Massachusetts Endangered Species Act (MESA). As part of the legal settlement with the General Electric Company for releasing polychlorinated biphenyls (PCBs) into the Housatonic River and its floodplain, the Massachusetts Natural Heritage and Endangered Species Program (NHESP) was awarded funds via the Massachusetts Sub-Council of the Housatonic River Trustee Council under the auspices of the Massachusetts and Department of the Interior (DOI) Natural Resource Damage Assessment and Restoration (NRDAR) Programs. It used these funds to undertake the most intensive and comprehensive ecological field study in the Program's history. The study focused on protected species and priority natural communities known to occur in the critical supporting watershed of the Housatonic River. Nearly 50 people participated in field studies and conducted nearly 2,500 site visits, with survey effort including approximately 495 days and more than 9,000 person-hours for fieldwork alone. Studies targeted a total of 60 state-listed species including a variety of plants (31), butterflies and moths (three), dragonflies and damselflies (five), freshwater mussels (two), fish (four), salamanders (two), turtles (three), and marsh birds (ten). The project also targeted 12 priority (S1-S3) natural community types. A total of 47 target species and 21 non-target state-listed species were encountered during the studies. Among the newly documented species were ten Endangered, five Threatened, and six Special Concern species. All of the target types of natural communities were found and an additional four priority natural community types were documented for the first time in the critical supporting watershed. The survey results greatly enhance resource protection afforded under MESA and the Wetlands Protection Act and will also help establish conservation priorities for federal, state, and local governments as well as non-government conservation organizations. Field studies described in this technical report, combined with existing natural resource data for the study area, will form the basis for a biodiversity conservation plan that includes priorities and recommendations for habitat protection, restoration, and management in the critical supporting watershed of the Housatonic River. The plan will be disseminated to stakeholders in the form of reports to each of 19 towns in the critical supporting watershed and a non-technical summary that appeals to the public and helps raise public awareness for watershed conservation efforts.

Housatonic River near Canoe Meadows Wildlife Sanctuary, Pittsfield. Ethan Nedeau

INTRODUCTION

The Housatonic watershed of western New England spans approximately 1,950 square miles of strikingly varied landscape, from the glacially scoured Taconic Mountains and Berkshire Highlands south through the highlands of western Connecticut to the Atlantic coastal plain. The Housatonic River flows through the heart of its watershed, meandering through expansive pastoral lands and cutting sharply through steep rocky ravines along its 149-mile path to the Long Island Sound. The Housatonic River watershed spans 545 square miles of southwestern Massachusetts (Figure 1) and includes 54 miles of the upper Housatonic River. The entire Massachusetts length of the Housatonic River flows through the Western New England Marble Valleys ecoregion[1] (Figure 2), a relict of an ancient shallow marine sea that was lost when continents drifted toward each other to connect along a seam that separates what is now New York and the Lake Champlain basin from the rest of New England. The calcium-rich marine sediments of the ancient seafloor were transformed to marble during the Acadian Orogeny 350-400 million years ago (reviewed in Woodlot Alternatives 2002). Although the last glaciers—which left the Housatonic only 10,000-14,000 years ago—and the erosive forces of water shaped current landforms in the watershed, it is the underlying marble that makes the Housatonic watershed one of the most biologically distinctive areas in Massachusetts. The principal characteristics of the Western New England Marble Valleys ecoregion are extensive groundwater aquifers and calcium-rich soil and water, which provide

Figure 1. Location of the Housatonic River watershed in southwestern Massachusetts. Data source: MassGIS.

[1]Ecoregions (or ecological regions) are areas of relatively homogeneous ecological systems, including vegetation, soils, climate, geology, and patterns of human uses)

Calcareous natural community types, such as this calcareous rock outcrop at Renee's Cobble in Sheffield, contribute to the high biological diversity in the Housatonic River watershed. Michael Batcher.

hydrological and chemical conditions preferred by plants and animals found nowhere else in the Commonwealth (Barbour *et al.* 1998, NHESP 2001).

Two of the ecoregions that occur in the Massachusetts portion of the watershed—the Taconic Mountains and the Western New England Marble Valleys—are among the four ecoregions with the highest densities of state-listed species in Massachusetts (Barbour *et al.* 1998). Within these two ecoregions, most of the rare species occur within four broad groups of natural community types: rich mesic forests, calcareous wetlands, river and stream communities, and emergent marshes. In addition to the species whose presence results from unique habitat conditions, the watershed is at the edge of the range for several state-listed species such as the bog turtle (*Glyptemys muhlenbergii*) and bur oak (*Quercus macrocarpa*). The Housatonic watershed is currently known to support 110 species of plants and 51 species of animals that are protected by the Massachusetts Endangered Species Act (MESA) and its implementing regulations (321 CMR 10.00) (NHESP database). Only 15 percent of Berkshire County lands lower than 1,000 feet in elevation – home to 112 state-listed species – receive the benefits of state protection (Barbour *et al.* 1998). In contrast, high elevation areas of the county are inhabited by 25 state-listed species and are relatively well protected—61 percent of lands higher than 2,500 feet in elevation are protected. Lowlands of Berkshire County, especially the Housatonic River valley, are an urgent conservation priority in Massachusetts.

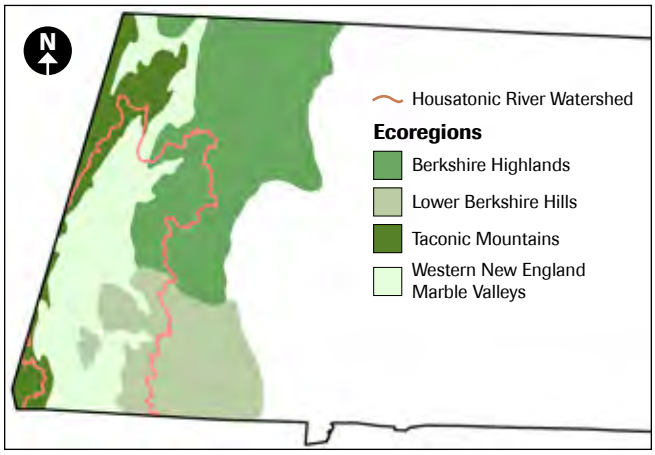

Figure 2. Ecoregions of western Massachusetts, showing the Western New England Marble Valleys through which the Housatonic River flows. Data source: MassGIS.

In 2005, the Natural Heritage and Endangered Species Program sought funds via the Massachusetts Sub-

The confluence of the East and West Branches of the Housatonic River in Pittsfield. Ethan Nedeau.

Council of the Housatonic River Trustee Council under the auspices of the Massachusetts and Department of the Interior (DOI) Natural Resource Damage Assessment and Restoration (NRDAR) Programs, as part of the legal settlement with the General Electric Company for releasing polychlorinated biphenyls (PCBs) into the Housatonic River and its floodplain. NHESP received these funds in 2007. Central to the proposal was the long-held conviction that the Housatonic watershed was critical to statewide biodiversity protection and the belief that state agencies, municipalities, private landowners, and corporate entities had a shared responsibility to protect and restore the watershed. The project had three main objectives regarding the identification, prioritization, and protection of critical natural resources:

- Conduct ecological and endangered species surveys of select habitats and taxonomic groups, especially those species most closely associated with the Housatonic River, its system, and tributaries, to define possible protection and restoration strategies.
- Identify and prioritize sites for habitat protection, restoration, and management.
- Provide conservation planning materials to the 19 municipalities within the primary study area.

This technical document primarily describes accomplishments toward the first objective. Site prioritization (Objective 2) is summarized in this document but is a collaborative effort that will evolve in 2010 and beyond. NHESP will provide conservation planning materials (Objective 3) to towns in the form of reports that are explicit about the rare species or exemplary natural communities that occur in each town and where protection, restoration, or management activities should be directed. The town reports will also incorporate new *BioMap* Core Habitats and are therefore expected to be completed soon after *BioMap 2* is completed late in 2010. In addition to the original objectives described above, NHESP will produce a non-technical summary of the work accomplished with NRD funds that will be engaging and appealing to general audiences and help build momentum for watershed conservation efforts.

STUDY AREA DESCRIPTION

Ecological and rare species studies were conducted within the Massachusetts portion of the Housatonic River watershed (Figure 3), specifically in areas closely tied to the Housatonic River. The study area was termed the **critical supporting watershed** and its boundaries (Figure 4) were determined using a grid-based watershed delineation model ("AQUALAND") developed at the University of Massachusetts (McGarigal *et al*. 2003). The critical supporting watershed included the Housatonic River and its floodplains, lower portions of major and minor tributaries, and nearby wetlands and terrestrial lands that may support aquatic and riparian species. Rare species and natural communities in higher elevations of the watershed, as well as most lakes, were excluded from the study.

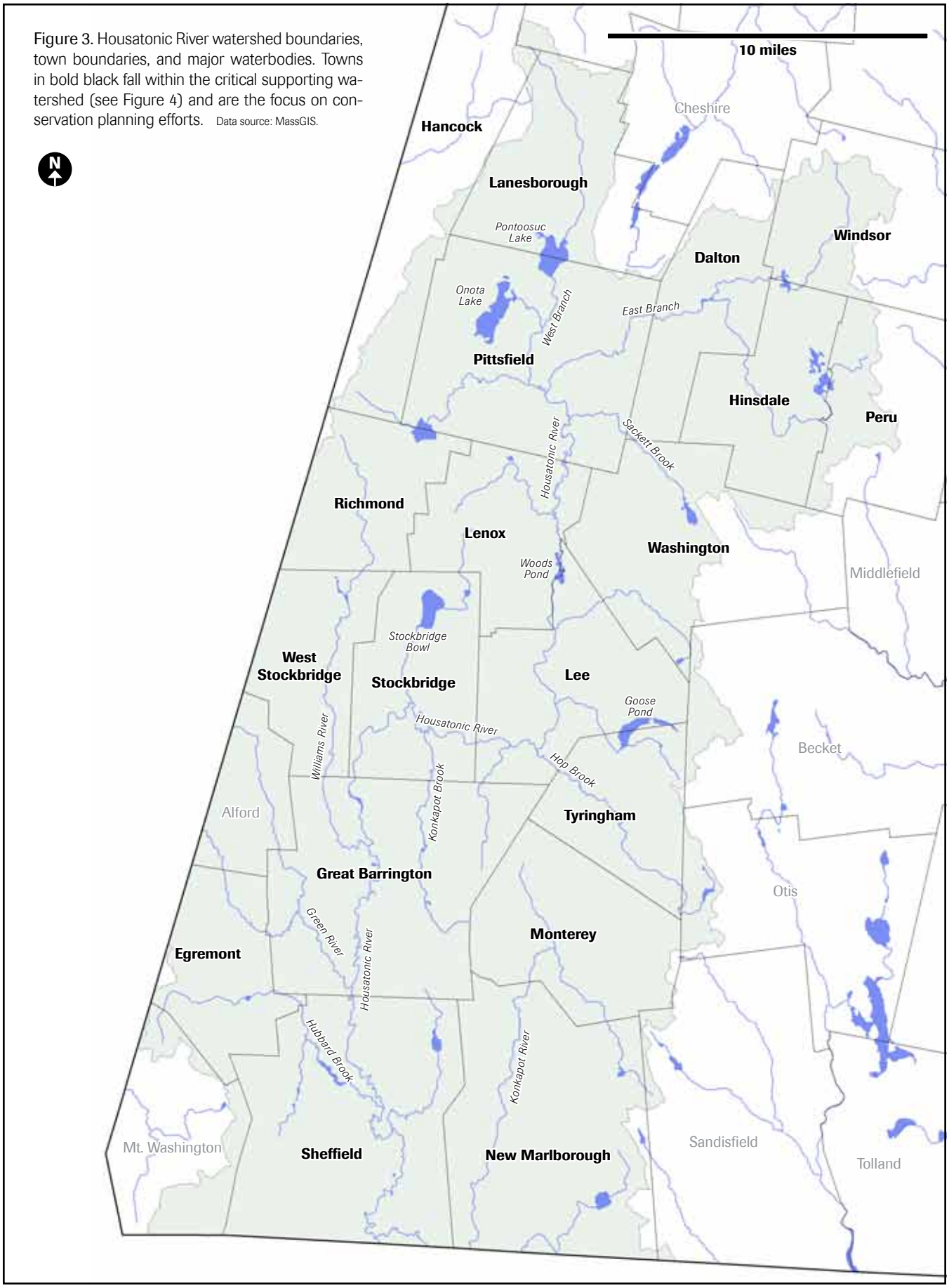

Figure 3. Housatonic River watershed boundaries, town boundaries, and major waterbodies. Towns in bold black fall within the critical supporting watershed (see Figure 4) and are the focus on conservation planning efforts. Data source: MassGIS.

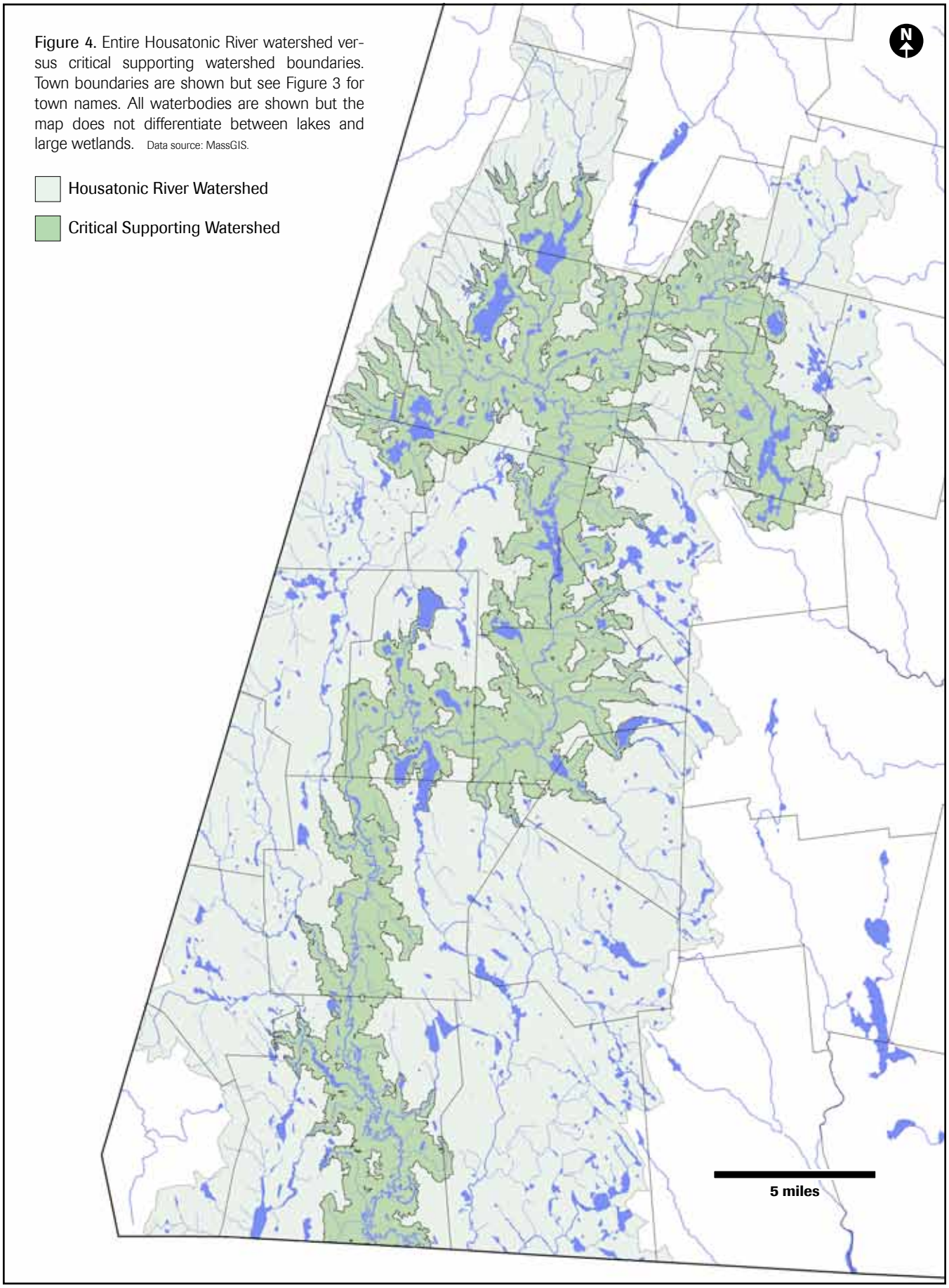

Figure 4. Entire Housatonic River watershed versus critical supporting watershed boundaries. Town boundaries are shown but see Figure 3 for town names. All waterbodies are shown but the map does not differentiate between lakes and large wetlands. Data source: MassGIS.

TARGET TAXA AND NATURAL COMMUNITIES

Surveys focused on state-listed plants and animals, priority natural communities (see Table 1 for ranking definitions), and vernal pools that were known, or suspected, to occur in the critical supporting watershed (Table 2). Existing **element occurrences** (EOs) are carefully tracked and updated by NHESP and helped direct the selection of survey targets and survey sites. EOs are defined as areas where a rare species population or natural community is (or was) present and which have practical conservation value for the species or community. In addition to EOs, NHESP also tracks some information on EO sources, including all the individual plants or animals that might constitute a single EO. In this report, EO sources are discussed specifically for the botanical surveys that targeted both EOs and EO sources. One of the primary reasons that this survey targeted existing or historic EOs (occurrences with the most recent record more than 25 years old are called historic) is that EOs only receive MESA protection for 25 years since the last observation. EOs with older records might or might not continue to support rare species, but without updates verifying the continued presence of rare species they receive no legal protection. Thus, there is a continual need to update EOs to maintain the legal protections provided to rare species and their habitats. Some of the more recent EOs in the NHESP database were not targeted for the NRD surveys because of the long time before they would expire and the need to focus efforts on older EOs.

The life history and dispersal ability of target taxonomic groups were considered when defining the geographic scope of studies; central goals were to locate source populations that might recolonize impacted areas and to protect dispersal routes to facilitate natural recovery. For example, dragonfly, wood turtle, fish, and marsh bird surveys were often conducted far up tributaries and in more remote areas because these mobile species may be able to replenish depleted populations nearer the Housatonic River or elsewhere in the critical supporting watershed. Targets are briefly described below.

Table 1. Definition of regulatory (Massachusetts Endangered Species Act) and non-regulatory status ranks used for species and natural communities in this report.

Status Ranks	Definition
Regulatory (MESA)	
Endangered	Endangered (E) species are native species which are in danger of extinction throughout all or part of their range, or which are in danger of extirpation from Massachusetts, as documented by biological research and inventory.
Threatened	Threatened (T) species are native species which are likely to become endangered in the forseeable future, or which are declining or rare as determined by biological research and inventory.
Special Concern	Special concern (SC) species are native species which have been documented by biological research or inventory to have suffered a decline that could threaten the species if allowed to continue unchecked, or which occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become threatened within Massachusetts.
Non-Regulatory	
Watch List	The plant Watch List (WL) is an unofficial, non-regulatory list of plants of known or suspected conservation concern that NHESP is interested in tracking.
State Ranks (S rank)	The state rank (S) reflects the rarity and threat within Massachusetts. The non-regulatory ranks for communities: S1 is least common, S5 most common;
S1	Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream or especially vulnerable to extirpation in Massachusetts for other reasons.
S2	Typically 6 - 20 occurrences, few remaining individuals, acres, or miles of stream or very vulnerable to extirpation in Massachusetts for other reasons.
S3	Typically 21 - 100 occurrences, limited acreage, or miles of stream in Massachusetts.
S4	Apparently secure in Massachusetts.
S5	Demonstrably secure in Massachusetts

Plants: A total of 83 state-listed or Watch List plant species were known from the critical supporting watershed prior to NRD surveys, with eight additional species considered to have been historically present. From among the pool of 91 rare plant species, surveys primarily targeted 31 species expected to occur in wetlands and forests in the floodplain of the Housatonic River (Table 2), whereas high-elevation species were not targeted. There were four objectives: (1) update EO records in the study area, (2) conduct searches for new rare plant species and occurrences in the study area, (3) assess the spatial extent and condition of habitat supporting EOs, and (4) assess threats to, and management needs of, rare plants and their habitats.

Moths and Butterflies: Two species of butterflies associated with wetland habitats were targeted for surveys: the Dion Skipper (*Euphyes dion*) and Mustard White (*Pieris oleracea*). Both species are listed as Threatened in Massachusetts. The Dion Skipper inhabits sedge wetlands, and it nectars in open wetlands and upland fields. Berkshire County contains eight of the nine known locations in Massachusetts; these records comprise the northeastern edge of the species' range. The Mustard White inhabits a variety of habitats, including riparian floodplains, margins of fens and marshes, wet meadows, fields, and pastures. The species has been found at only six locations in

Table 2. State-listed species and priority natural communities either specifically targeted or found during NRD surveys. Ranks: E = Endangered, T = Threatened, SC = Special Concern, EXT = Extirpated, NL = Not Listed, S-ranks (natural community types) described Table 1.

Common Name	Latin Name	Rank
Plants		
Black Maple	*Acer nigrum*	SC
Black Cohosh	*Actaea racemosa*	E
Climbing Fumitory	*Adlumia fungosa*	SC
Small-flowered Agrimony	*Agrimonia parviflora*	E
Green Dragon	*Arisaema dracontium*	T
Mountain Spleenwort	*Asplenium montanum*	E
Smooth Rock-cress	*Boechera laevigata*	T
Purple Cress	*Cardamine douglassii*	E
Foxtail Sedge	*Carex alopecoidea*	T
Davis's Sedge	*Carex davisii*	E
Gray's Sedge	*Carex grayi*	T
Hairy-fruited Sedge	*Carex trichocarpa*	T
Tuckerman's Sedge	*Carex tuckermanii*	E
Cat-tail Sedge	*Carex typhina*	T
Narrow-leaved Spring Beauty	*Claytonia virginica*	E
Hemlock Parsley	*Conioselinum chinense*	SC
Showy Lady's-slipper	*Cypripedium reginae*	SC
Wright's Spike-rush	*Eleocharis diandra*	E
Intermediate Spike-sedge	*Eleocharis intermedia*	T
Ovate Spike-rush	*Eleocharis ovata*	E
Hairy Wild Rye	*Elymus villosus*	E
Dwarf Scouring-rush	*Equisetum scirpoides*	SC
Frank's Lovegrass	*Eragrostis frankii*	SC
Andrews' Bottle Gentian	*Gentiana andrewsii*	E
Giant St. John's-wort	*Hypericum ascyron*	E
Great Blue Lobelia	*Lobelia siphilitica*	E
Hairy Honeysuckle	*Lonicera hirsuta*	E
Many-fruited False-loosestrife	*Ludwigia polycarpa*	E
Winged Monkeyflower	*Mimulus alatus*	E
Comb Water-milfoil	*Myriophyllum verticillatum*	E
Tiny Cow-lily	*Nuphar microphylla*	E
Drooping Speargrass	*Poa saltuensis ssp. languida*	E
Hill's Pondweed	*Potamogeton hillii*	SC
Ogden's Pondweed	*Potamogeton ogdenii*	E
Bur Oak	*Quercus macrocarpa*	SC
Yellow Oak	*Quercus muehlenbergii*	T
Bristly Buttercup	*Ranunculus pensylvanicus*	T
Swamp Dock	*Rumex verticillatus*	T
Wapato	*Sagittaria cuneata*	T
Long-styled Sanicle	*Sanicula odorata*	T
Wild Senna	*Senna hebecarpa*	E
Shining Wedgegrass	*Sphenopholis nitida*	T
Small Dropseed	*Sporobolus neglectus*	E
Crooked-stem Aster	*Symphyotrichum prenanthoides*	T
Culver's-root	*Veronicastrum virginicum*	T
Barren Strawberry	*Waldsteinia fragarioides*	SC
	Total Species	46
Butterflies and Moths		
Dion Skipper	*Euphyes dion*	T
Mustard White	*Pieris oleracea*	T
Ostrich Fern Borer	*Papaipema sp. 2 near pterisii*	SC
	Total Species	3
Dragonflies		
Arrow Clubtail	*Stylurus spiniceps*	T
Zebra Clubtail	*Stylurus scudderi*	SC
Brook Snaketail	*Ophiogomphus aspersus*	SC
Riffle Snaketail	*Ophiogomphus carolus*	T
Skillet Clubtail	*Gomphus ventricosus*	SC
Spine-crowned Clubtail	*Gomphus abbreviatus*	E
Rapids Clubtail	*Gomphus quadricolor*	T
Harpoon Clubtail	*Gomphus descriptus*	E
Ocellated Darner	*Boyeria grafiana*	SC
Stygian Shadowdragon	*Neurocordulia yamaskanensis*	SC
	Total Species	10
Freshwater Mussels		
Triangle Floater	*Alasmidonta undulata*	SC
Creeper	*Strophitus undulatus*	SC
	Total Species	2
Fish		
Burbot	*Lota lota*	SC
Trout Perch	*Percopsis omiscomaycus*	EXT
Bridle Shiner	*Notropis bifrenatus*	SC
Longnose Sucker	*Catostomus catostomus*	SC
	Total Species	4
Salamanders		
Four-toed Salamander	*Hemidactylium scutatum*	NL
Jefferson Salamander	*Ambystoma jeffersonianum*	SC
Marbled Salamander	*Ambystoma opacum*	T
	Total Species	3
Turtles		
Wood Turtle	*Glyptemys insculpta*	SC
Bog Turtle	*Glyptemys muhlenbergii*	E
Eastern Box Turtle	*Terrapene c. carolina*	SC
	Total Species	3
Marsh Birds		
Virginia Rail	*Rallus limicola*	NL
Sora	*Porzana carolina*	NL
American Bittern	*Botaurus lentiginosus*	E
Least Bittern	*Ixobrychus exilis*	E
King Rail	*Rallus elegans*	E
Common Moorhen	*Gallinula chloropus*	SC
Pied-billed Grebe	*Podilymbus podiceps*	E
Sedge Wren	*Cistothorus platensis*	E
Marsh Wren	*Cistothorus palustris*	NL
Green Heron	*Butorides virescens*	NL
	Total Species	10
Priority Palustrine Natural Community Types		
Acidic Graminoid Fen		S3
Alluvial Red Maple Swamp		S3
Black Ash Swamp		S2
Black Ash-Red Maple-Tamarack Calcareous Seepage Swamp		S2
Calcareous Basin Fen		S1
Calcareous Sloping Fen		S2
Level Bog		S3
Major-River Floodplain Forest		S2
Red Maple-Black Ash-Bur Oak Swamp		S2
Small-River Floodplain Forest		S2
Spruce-Fir Boreal Swamp		S3
Transitional Floodplain Forest		S2
Priority Terrestrial Natural Community Types		
Calcareous Forest Seep		S2
Calcareous Rock Cliff		S3
Calcareous Rocky Summit/Rock Outcrop		S2
High Terrace Floodplain Forest		S2
Rich Mesic Forest		S3
Ridgetop Pitch Pine-Scrub Oak		S2
Yellow Oak Dry Calcareous Forest		S2
	Total Natural Communities	19

Massachusetts, all in central Berkshire County, and these populations comprise the southernmost extent of the species' range in eastern North America. The Ostrich Fern Borer (*Papaipema* sp. 2 near *pterisii*), a Special Concern moth species, was also targeted for NRD surveys. Most of the known occurrences for this species in Massachusetts are in the Housatonic River floodplain, where it is associated with stands of ostrich fern (*Matteuccia struthiopteris*) in mature floodplain forests and wooded swamps.

Dragonflies and Damselflies: Prior to the NRD surveys, five state-listed dragonfly species and one state-listed

Four of the target state-listed species, including triangle floater (top left), Jefferson salamander (bottom left), wood turtle (top right) and Least Bittern (bottom right). In the order mentioned: Ethan Nedeau, Steve Johnson, Ethan Nedeau, Patricia Serrentino

damselfly species were known from the critical supporting watershed, but the whole region was undersurveyed and there was high potential for finding several more state-listed species. Thus, surveys targeted all riverine dragonflies in the mainstem Housatonic River and its tributaries rather than focusing on small areas or single species. Damselflies were not specifically targeted because they tend to be far less diverse in riverine environments and because the only state-listed damselfly previously known from the critical supporting watershed, the Tule Bluet (*Enallagma carunculatum*), prefers larger lakes. Primary targets were rare dragonfly species in the genera *Stylurus*, *Ophiogomphus*, *Gomphus*, and *Boyeria*. The life cycle of dragonflies includes an aquatic larval stage and aerial adult stage. From May through September (depending on the species), larvae emerge from the water when ready to metamorphose into adults; when they find an appropriate surface the adult form will shed their larval exoskeletons (called exuviae), unfurl and dry their wings, and then take flight. Surveys focused on larvae, exuviae, and adults.

Freshwater Mussels: Two state-listed freshwater mussel species were known from the Housatonic watershed prior to NRD surveys: the triangle floater (*Alasmidonta undulata*) and creeper (*Strophitus undulatus*). NHESP had only five site records for the triangle floater and four site records for the creeper, but thorough and systematic mussel surveys had never been conducted in the watershed. Both species occur in small to large streams and rivers throughout central and eastern Massachusetts and are also known from several sites in the Connecticut portion of the Housatonic watershed. For the NRD project, surveyors targeted all freshwater mussel species because of their importance to stream ecosystems and because they are indicators of the quality of water and habitat.

Fish: Three state-listed fish species and one species considered extirpated in Massachusetts have been reported in the Housatonic River watershed in Massachusetts. All four were targeted for the NRD surveys. Two species, the longnose sucker (*Catostomus catostomus*) and bridle shiner (*Notropis bifrenatus*)—both listed as Special Concern in Massachusetts—have been recently collected in the watershed. The longnose sucker occurs in cool rocky sections of streams and rivers in western Massachusetts, including the Deerfield, Housatonic, Hoosic, and

Plant and natural communities conducted in 2008 also noted presence of ostrich fern stands in floodplain forests, which were then targeted for Ostrich Fern Borer moth surveys in 2009. Michael Batcher.

Westfield watersheds. The bridle shiner occurs in slack areas of streams and rivers, as well as ponds and lakes, especially among submerged aquatic vegetation.

Two target fish species were historically reported from the watershed or occur in nearby Connecticut. The burbot (*Lota lota*), a species of Special Concern in Massachusetts, occurs in tributaries in the Connecticut portion of the Housatonic watershed. The trout perch (*Percopsis omiscomaycus*), a species more common west of New England, has not been seen in Massachusetts since 1942 when it was found near the mouth of the Green River and the species is now considered extirpated.

Salamanders: Only two state-listed salamander species were known from the study area prior to NRD surveys: the Jefferson salamander (*Ambystoma jeffersonianum*) and four-toed salamander (*Hemidactylium scutatum*). The Jefferson salamander is listed as Special Concern in Massachusetts and is thought to occur primarily in the western half of the state. They live in upland deciduous or mixed forests within one mile of their breeding wetlands. The four-toed salamander was removed from the MESA list in 2008 after NRD surveys had been initiated. They occur throughout Massachusetts in a variety of forested wetlands and boggy habitats and nest in *Sphagnum* mounds (sometimes tussock sedge mounds) over standing water. The marbled salamander (*Ambystoma opacum*), which is listed as Threatened in Massachusetts, was not targeted for NRD surveys because it had never been reported in the watershed. It occupies similar habitat as Jefferson salamanders but has a more central and eastern distribution in Massachusetts and a more southern distribution range-wide. As described in the results, this species was documented in the Massachusetts portion of the Housatonic watershed for the first time ever.

Turtles: Surveys targeted two state-listed turtle species that occur in the Housatonic watershed. These include the wood turtle (*Glyptemys insculpta*) and bog turtle (*Glyptemys muhlenbergii*). The wood turtle is listed as Special Concern in Massachusetts, and it is widespread but uncommon from the coastal plain to the Housatonic watershed. It prefers slow-moving mid-sized streams with sandy bottoms and vegetated riparian areas. The bog turtle is listed as Endangered in Massachusetts and is also federally listed as Threatened by the United States Fish and Wildlife Service. The bog turtle inhabits calcareous fen wetlands in the Housatonic watershed and known populations are extremely isolated. A third state-listed turtle species, the eastern box turtle (*Terrapene c. carolina*) has been reported in the lower Housatonic watershed in Massachusetts (including one old carapace) but natural

Though not rare, fairy shrimp (top) and wood frogs (bottom) are obligate vernal pool species and were targeted to confirm whether pools met biological criteria for certification. Steve Johnson.

populations have never been detected and historic reports might be escaped pets. A modest survey was conducted in 2009 but a much more intensive effort would be needed to detect low-density populations (if they exist).

Marsh Birds: Ten marsh bird species were targeted for surveys (Table 2), including five that had been recently confirmed in the study area, one historic species, and four species for which little prior information was available. Only six of the ten species are state-listed in Massachusetts (four Endangered, one Threatened, one Special Concern). Marsh birds are the only taxonomic group for which non-MESA listed species were surveyed: the four non-listed species occur in habitats similar to those of the listed marsh birds, and are often surveyed with them. Two of the four (Sora and Green Heron) are included In the Massachusetts Wildlife Action Plan[2] (WAP), a project to support conservation efforts aimed at preventing wildlife from becoming endangered. Surveys targeted large open wetlands throughout the watershed containing variable amounts of cattail (*Typha* spp.), tussock sedge (*Carex stricta*) and other wetland sedges, low shrubs, reed canary grass (*Phalaris arundinacea*), and the non-native common reed (*Phragmites australis*).

Vernal Pools: Vernal pools are temporary bodies of freshwater that either fill in the fall and hold water until the following spring ("autumnal pools") or fill in the springtime by spring rains and snowmelt and dry later in the summer. Most dry annually (with some variation due to size and depth of the vernal pool and precipitation) and therefore do not support fish populations. Many vernal pools throughout Massachusetts are critical breeding habitats for rare species, especially mole salamanders (*Ambystoma* spp.) and might also be foraging areas for other important wildlife species. A total of 786 potential vernal pools (PVPs) had been identified in the Housatonic watershed based on analysis of aerial photography (NHESP 2001), but only 70 were certified prior to 2008. Certified vernal pools are protected by the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) as well as other state and local laws. NHESP administers the official vernal pool certification program in Massachusetts and protects state-listed species associated with these habitats. Therefore, NRD surveys targeted both vernal pools and the state-listed species that could potentially inhabit them.

Natural Communities: Natural communities are groups of plants and animals that are found in recurring patterns and can be classified and described by their dominant physical and biological features. Each type of natural community receives an element rank that reflects its rarity and threat within Massachusetts. Priority natural communities are generally ranked from S1 (highest) to S3; lower-ranked communities (S4 and S5) are more common and widespread in the state. Prior to the NRD surveys, there were nine types of priority freshwater communities and three types of priority terrestrial communities in the critical supporting watershed (Table 2). Among these were one S1 community (Calcareous Basin Fen, two occurrences), six S2 communities, and five S3 communities. These were the primary targets for the NRD surveys, although the survey had a second major objective of documenting new or additional priority types of natural communities in the critical supporting watershed.

METHODS

NHESP solicited proposals for ecological and state-protected species work and contracted with expert consultants, academic researchers, and graduate students

[2]Website: www.mass.gov/dfwele/dfw/habitat/cwcs/cwcs_background

Table 3. Contractors and NHESP staff that contributed to fieldwork and preparation of the technical report.

Contractors (Principal Investigator)	Affiliation (s)	Category/Project Focus	Year
James Gibbs and Angela Sirois	State University of New York, ESF	Bog Turtles	2008-2009
Tom Lautzenheiser	Massachusetts Audubon Society	Butterflies	2008-2009
John Baker	Clark University	Fish	2009
Kimberly Ogden	University of Massachusetts Amherst	Four-Toed Salamanders	2008
Ethan Nedeau	Biodrawversity	Freshwater Mussels	2008-2009
Noah Charney	University of Massachusetts Amherst	Jefferson Salamanders, Vernal Pools	2008-2009
Jennifer Strules	Independent Wildlife Biologist	Marsh Birds	2008
Patricia Serrentino	Independent Wildlife Biologist	Marsh Birds	2009
Michael Batcher	Independent Ecologist	Natural Communities	2008-2009
David Wagner, Alexander Meleg, Michael C. Thomas, and Greg Hanisek	University of Connecticut	Odonate Surveys	2008
Fred Morrison	A Natural Focus	Odonate Surveys - Northern tributaries	2009
Ethan Nedeau	Biodrawversity	Odonate Surveys - Southern tributaries	2009
Suzanne Fowle	Independent Wildlife Biologist	Turtles	2009
Marybeth Hanley	Independent Botanist	Vascular Plants	2008-2009
William Moorhead	Independent Botanist	Vascular Plants	2008-2009
Michael Jones	University of Massachusetts Amherst	Wood Turtle	2008
Ethan Nedeau	Biodrawversity	Data analysis, report coordination, and writing	2009-2010
NHESP Staff			
Chris Buelow	NHESP	Marsh Birds	2008-2009
Michael Nelson	NHESP	Ostrich Fern Borer Moth	2009

(Table 3). Specific objectives, survey locations, methods, and reporting expectations varied among the different projects. Contractors closely coordinated with one or more NHESP staff to ensure that reports and data were submitted in a manner that would ensure their inclusion in NHESP's rare species database and conservation planning efforts. This report briefly describes the methods used for each taxonomic group, vernal pools, and natural communities. Methods are usually described in greater detail in the full submissions from contractors.

I. Ecological and Endangered Species Surveys

Plants: Marybeth Hanley and William Moorhead (both independent contractors) completed the botanical studies. The project focused on rediscovering and updating existing EOs and EO sources. Surveys primarily targeted wetland and upland plant species within the floodplain in Sheffield, Great Barrington, Lenox, and Pittsfield. Approximately 308 sites or EOs were visited. Field forms were completed according to NHESP specifications. Fieldwork was performed in 2008 and 2009 (two botanists, 120 days).

Moths and Butterflies: Tom Lautzenheiser of the Massachusetts Audubon Extension Services led the butterfly surveys. Eight locations were surveyed for Mustard White, including five where it had been previously documented and three with potential habitat. Surveys were conducted on sunny days during the flight period in April and May of 2008. Seven sites were surveyed for Dion Skipper on sunny days during the July flight period in 2008. Michael Nelson of NHESP surveyed for the Ostrich Fern Borer at seven floodplain sites where large concentrations of ostrich fern had been noted during the first year of the NRD funded surveys; larval surveys were conducted in 67 acres of potential habitat in the summer of 2009. Ostrich Fern Borer larvae were collected and reared to the adult stage to confirm their identity. Presence of host plants and the approximate extent of suitable habitat were noted at each survey site where the target species were found.

Dragonflies and Damselflies: In 2008, Dr. David Wagner of the University of Connecticut led a team that surveyed for dragonflies along nearly 51 miles of the Housatonic River, including 72 "sites" of varying length for a total of 104 site visits. In 2009, the consulting firms Biodrawversity LLC and A Natural Focus completed dragonfly and damselfly surveys in tributaries, collectively surveying 51 sites in 31 tributaries for a combined 85 site visits. Surveys focused on aquatic larvae in wadeable areas, exuviae and tenerals (pre-flight adults) along riverbanks, and aerial adults along rivers and in adjacent uplands. Larval sampling was conducted in a representative range of habitats at each survey site. Sites with habitat that appeared promising for rare species were usually revisited during the peak emergence period to find exuviae and adults. Community composition and habitat descriptions were recorded to establish baseline conditions for the survey sites.

Freshwater Mussels: Ethan Nedeau of Biodrawversity LLC led a two-year freshwater mussel study in the Housatonic River (44 sites) and five tributaries (eight sites) between Pittsfield and the Massachusetts border. Two biologists spent a total of 13 days conducting

qualitative and quantitative surveys over a total distance of 8,765 meters (5.5 miles) for an average survey distance of 170 meters per site and a range from 25-800 meters. Surveys were primarily done by snorkeling or wading with clear-bottom buckets. Surveyors recorded data on mussel species composition, abundance, demographics, shell condition, habitat preference, and habitat conditions.

Fish: In 2009, Dr. John Baker of Clark University led a team that surveyed fish at 27 sites in six tributaries but not in the mainstem Housatonic River. Studies were conducted between June and August. Five collection methods were used, including (1) backpack electrofishing device, (2) bag seines, (3) aquatic dip nets, (4) minnow traps, and (5) visual observations. The team attempted to survey at least 100 meters of habitat at each survey site. Captured fish were counted, identified to species, and habitat data were collected.

Salamanders: Kimberly Ogden, a graduate student at the University of Massachusetts, conducted the four-toed salamander survey with fieldwork supplemented by NHESP staff. Using a computer model to predict potential habitat (primarily forested wetlands and to a lesser extent bogs), 32 survey sites were selected for field visits to locate nests and adult females in suitable nesting substrates. Noah Charney, also a graduate student at the University of Massachusetts, led the Jefferson salamander survey. He visited a total of 520 sites that were either selected from among the Massachusetts Potential Vernal Pool (PVP) GIS datalayer (NHESP 2001) or encountered en route to other sites. Presence of Jefferson salamanders was determined by visual surveys for egg masses, larvae, and adults during the April-May breeding period. Additional methods for the vernal pool studies are described below.

Turtles: Dr. Michael Jones, while a graduate student at the University of Massachusetts, conducted wood turtle surveys in 2008 and Suzanne Fowle continued the work in 2009. Contractors surveyed 40 sites, including eight sites in the Housatonic River and 32 sites in 15 tributaries, covering nearly 48 miles of potential aquatic and upland habitat. Turtles were captured by hand by searching shallow water, streambanks, and riparian clearings. All captured turtles were marked with a unique number, aged, and sexed. Radiotelemetry studies were conducted at five sites (21 animals) to monitor movement and assess the extent of suitable habitat. Suzanne Fowle also conducted eastern box turtle surveys in 2009 at four locations where the species had been historically reported but not verified.

Angelo Sirois and Dr. James Gibbs of the State University of New York (College of Environmental Science and Forestry) undertook bog turtle research in 2008 and 2009. Six sites were surveyed in the watershed between May and September of each year, including two where bog turtle populations were known to occur, one historic (1966) site, and three with promising habitat but no prior records. Radiotelemetry studies were conducted at two sites to investigate habitat use. Previously unmarked bog turtles were marked with a unique number, aged, and sexed. Females were palpated to determine presence of eggs and surveyors attempted to locate nests and monitor hatching success.

Marsh Birds: Marsh bird surveys were completed by Jennifer Strules (2008) and Patricia Serrentino (2009) (independent contractors) and by staff and technicians at NHESP (led by Chris Buelow). A total of 100 potential sites were originally selected, and preliminary site visits narrowed the list to 81 sites that had appropriate habitat characteristics for target species. All were open marsh habitats greater than two acres in size and comprised a total of 1,504 acres. A total of 50 sites were surveyed in 2008 and 31 were surveyed in 2009. Each site was typically surveyed three times within the survey window of May 1-July 10 of each year. Using standard protocols, marsh bird vocalizations were broadcast into marshes at 200-meter intervals and presence (audible or visual) of target species was noted. Three target species—Green Heron, Marsh Wren, and Sedge Wren—were surveyed primarily by listening or watching because vocalization broadcasts have proven ineffective for detecting them. The composition and spatial structure of marsh plant communities were recorded within a 100-meter radius of each broadcast point, and surveyors also noted water levels, presence of beavers, degree of beaver influence on water levels, and presence of invasive plant species.

Vernal Pools: Noah Charney, a graduate student at the University of Massachusetts, led a two-year vernal pool survey. He visited a total of 520 sites that were either selected from among the Massachusetts Potential Vernal Pool (PVP) GIS datalayer (NHESP 2001) or encountered en route to other sites. In 2009, only PVPs greater than 1,000 meters away from 2008 survey sites were visited to ensure adequate coverage of the watershed. Surveys were conducted primarily for vernal pool obligate species including spotted salamanders (*Ambystoma maculatum*), Jefferson salamanders, wood frogs (*Lithobates sylvaticus*), and fairy shrimp (*Eubranchipus* spp.). Surveys were completed in April and May during the peak amphibian breeding season and included visual or auditory surveys for spermatophores, egg masses, larvae, adult salamanders and wood frogs, and fairy shrimp. Obligate vernal pool

species were documented with photographs, and audio recordings were taken of vocalizing wood frogs.

Natural Communities: Michael Batcher completed the natural community surveys. A preliminary list of 48 survey sites was developed using existing field data, GIS data, and consultation with NHESP. The contractor visited 26 of these sites in 2008 and evaluated conditions using NHESP protocols. Field data were analyzed and subsequent site visits (21 more sites) targeted important data gaps. One site was posted and could not be visited because the owners could not be contacted. Final field forms, maps, and photographs were compiled and submitted according to NHESP standards. Fieldwork was completed over a total of 41 days in 2008 and 2009.

II. Data Synthesis and Reporting

The enormous amount of data gathered during this project, resulting from combined effort of NHESP staff and 17 contracted biologists (plus their technicians, students, or volunteers), required a high degree of organization and synthesis to produce a comprehensive report. NHESP staff overseeing the fieldwork of contracted biologists ensured that data submissions were complete and accurate. However, because not all contractors were required to write summary reports, submissions ranged from GIS files and datasheets to detailed technical reports. Data managers and GIS experts at NHESP collaborated with other staff and contractors to update the NHESP database and to modify existing—or draw new—rare species or priority natural community polygons based on fieldwork. NHESP hired a consultant to summarize results from all field studies, extract performance measures (e.g., units of effort, number of new EOs located, etc.), help with GIS analysis and site prioritization, and prepare a technical report. The same consultant will also help prepare conservation planning materials for towns and a non-technical summary report.

III. Establishing Priorities for Protection, Restoration, and Management

One of the primary goals of the project was to identify and prioritize sites for conservation of rare species and priority natural communities based on up-to-date rare species and natural community data. The prioritization process is an ongoing collaborative process, and final results are not presented in this report. NHESP will base prioritization primarily on two types of information:

1. **Species Element Ranks** (see Table 1 for definitions): These are MESA ranks assigned to all state-listed species, which for species include Endangered, Threatened, or Special Concern. There are also some rare plants on a "Watch List," because more information is needed to determine if MESA protection is warranted or because they were removed from the MESA list. Natural communities are ranked from S1 (critically imperiled) to S5 (common, widespread, and abundant). Priority natural communities in Massachusetts are those ranked as S1, S2, or S3.
2. **Species Occurrence Ranks (or Viability Ranks):** All species and natural community occurrences are assigned a rank on an A-D scale that indicates their probability of persisting over time. A-ranked occurrences have the highest probability of long-term persistence and D-ranked occurrences have the lowest. Ranking is based on size, condition, and landscape context for each species, species habitat, or natural community.

Land protection status and a variety of other considerations may also be part of the prioritization process, depending on the amount of information available for an EO and the best professional judgment of NHESP staff and other experts. The prioritization process will be adjusted for different objectives including habitat protection, restoration, or management.

RESULTS

I. Target Taxa and Natural Communities

Plants: A total of 308 "sites" were surveyed during the two-year study. Of these, 206 were prior EOs or EO sources within the critical supporting watershed. Surveys updated 67 prior EOs and documented thirty new EOs during the course of the study. A total of 46 state-listed plant species and 165 EOs (not including EO sources) are now documented within the critical supporting watershed, including 46 Endangered, 68 Threatened, and 51 Special Concern species EOs. Surveys increased the number of plant EOs within the critical supporting watershed by 20 but with a much higher increase in the number of EO sources. Figure 5 shows the current (as of spring 2010) distribution of all rare plant EOs in the Housatonic watershed.

Eleven of the original 31 target species had not previously been recorded within the critical supporting watershed; however, the survey did locate populations for four of these species: Smooth Rock Cress (*Boechera laevigata*) Purple Cress (*Cardamine douglassii*), Cattail Sedge (*Carex typhina*), and Barren Strawberry (*Waldsteinia*

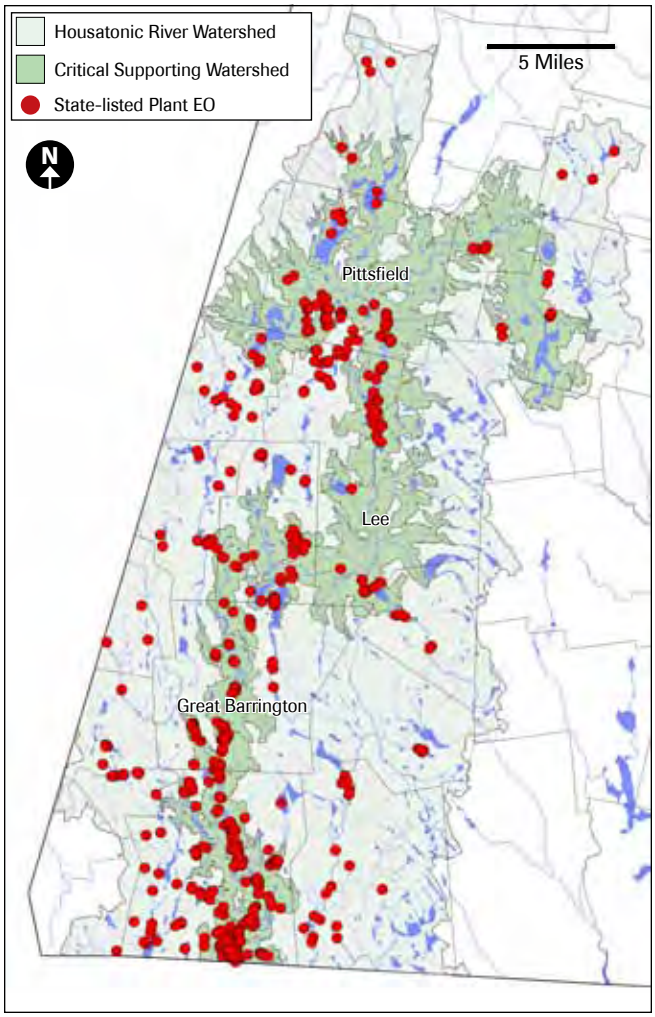

Figure 5. Current distribution of rare plant EOs in the Housatonic watershed and critical supporting watershed. Many of these were updated or newly documented during NRD surveys.

Data sources: MassGIS, NHESP database.

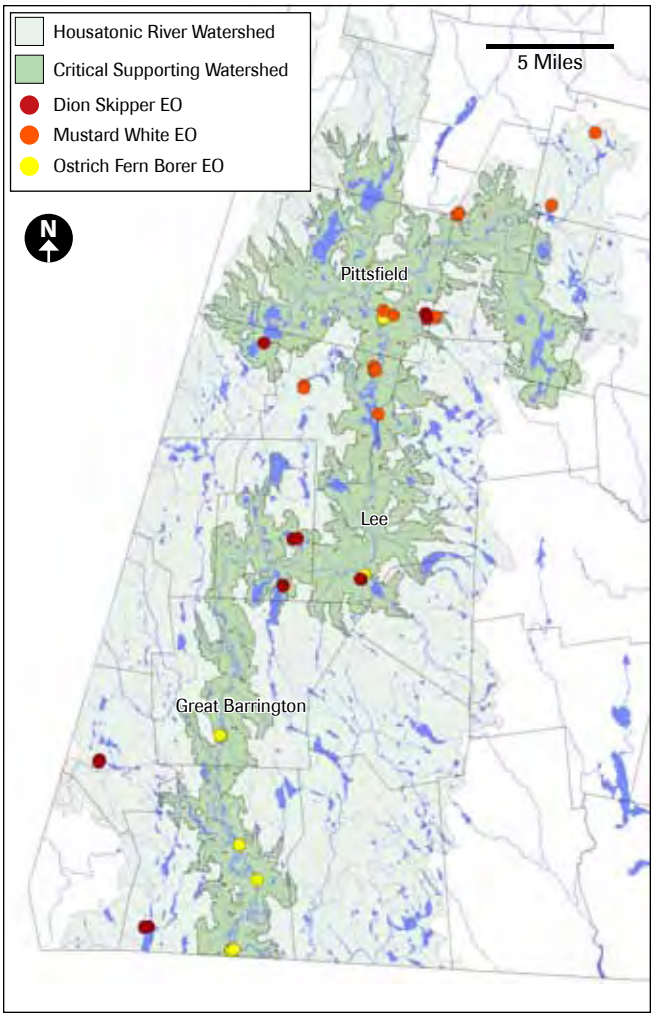

Figure 6. Current distribution of target butterfly and moth species EOs in the Housatonic watershed and critical supporting watershed. Many of these were updated or newly documented during NRD surveys.

Data sources: MassGIS, NHESP database.

fragarioides). The surveyors found populations of all 20 target species with prior EOs within the critical supporting watershed and found populations of 15 non-target state-listed species as well. The distribution of plant EOs within the Housatonic River watershed shows some distinct concentrations of rare plants. The greatest concentration of EOs occurs in southern Sheffield, with other concentrations occurring in northern Sheffield, southern Great Barrington, eastern Stockbridge, eastern Lenox, and southern Pittsfield.

Moths and Butterflies: Figure 6 shows the current (as of spring 2010) EO distribution of the three target species in the Housatonic watershed. The Mustard White was found at five of seven survey sites plus at an additional site where it was not the target species. Surveys updated a historic (>25 year old) record, reconfirmed the species at three sites, and located two new sites. All survey sites contained one or more host plants in the Mustard family (Brassicaceae) but these varied in abundance. Host species included Toothwort (*Dentaria* spp.), Cuckooflower (*Cardamine pratensis*), the non-native Garlic Mustard (*Alliaria petiolata*), and Watercress (*Rorippa nasturtium-aquaticum*).

The Dion Skipper was found at six of seven survey sites, including three of four sites where it had been previously documented plus three new sites. Five of the sites contained large areas of preferred sedge habitat, especially species such as lakeshore sedge (*Carex lacustris*). One of the newly discovered sites had expansive areas of suitable habitat and might be the best Dion Skipper site in Massachusetts. The survey site where Dion Skippers were not found lacked large areas of preferred sedge habitat.

The Ostrich Fern Borer was found at six of seven survey sites, with as many as ten larvae found at a single site. During these surveys, biologists documented

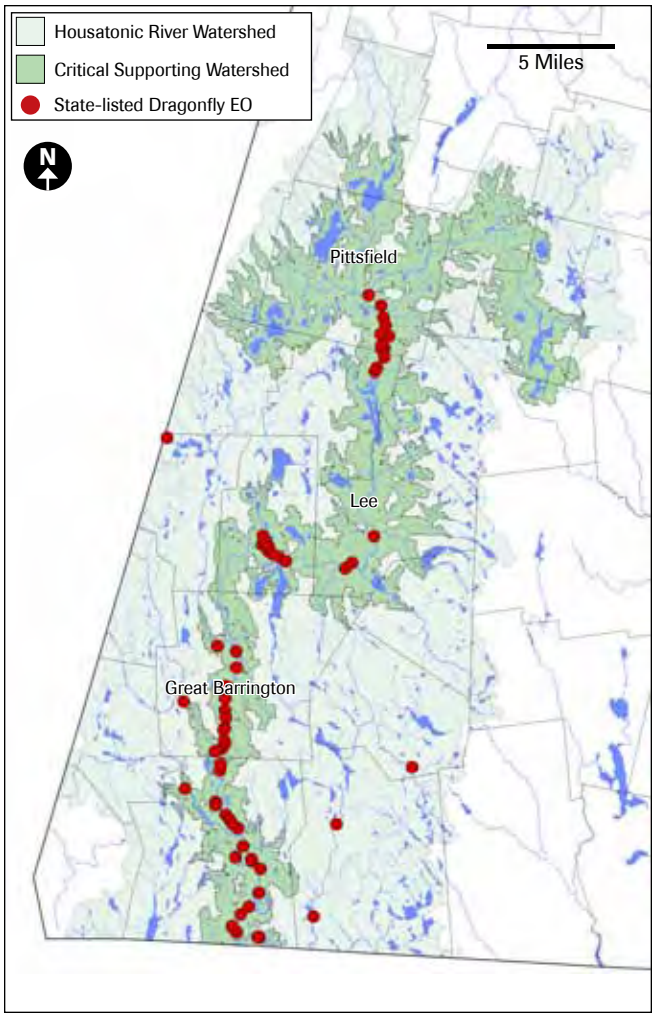

Figure 7. Current distribution of rare dragonfly EOs in the Housatonic watershed and critical supporting watershed. Many of these were updated or newly documented during NRD surveys.

Data sources: MassGIS, NHESP database.

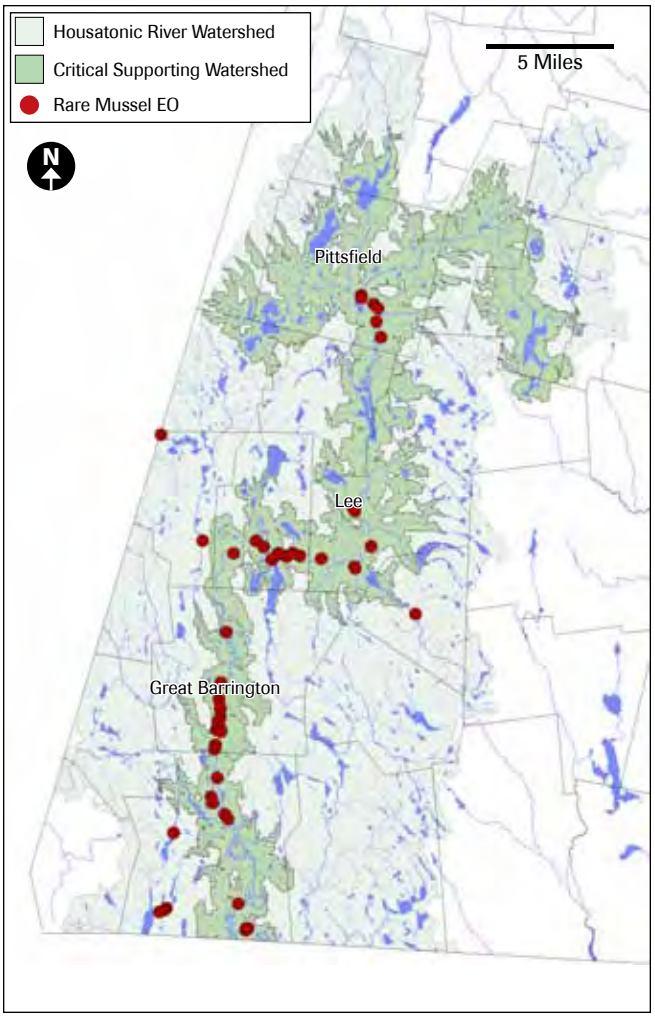

Figure 8. Current distribution of state-listed mussel EOs in the Housatonic watershed and critical supporting watershed. Most of these were newly documented during NRD surveys. The two species nearly always overlapped, therefore one symbol is used for both species.

Data sources: MassGIS, NHESP database.

another rare moth species that also feeds on ostrich fern called the Ghost Moth (*Sthenopis auratus*). This species is uncommon in Massachusetts and globally rare but not state-listed. It is only the third location in Massachusetts where the species has been found in recent decades.

Dragonflies and Damselflies: Forty-eight species representing all six New England families of dragonflies were recorded during the surveys. Damselflies were much less diverse than dragonflies and no state-listed damselfly species were encountered. The most species-rich families in the study area were the Gomphidae (19 species) and Libellulidae (14 species). The family Gomphidae contains 11 species that are state-listed in Massachusetts, and eight of these species were found during the two-year survey. Only three species in this species-rich family had been documented in the study area prior to the NRD surveys. Altogether, surveyors documented ten state-listed dragonfly species (Table 4), doubling the number of state-listed dragonflies known from the critical supporting watershed. Among the newly discovered species were two Endangered species, one Threatened species, and two Special Concern species. Surveys also resulted in a significantly greater number of EOs for state-listed species overall, from eight prior to NRD surveys to 29 afterward. Figure 7 shows the current (as of spring 2010) distribution of rare dragonfly EOs in the Housatonic watershed. It was evident from the surveys that nearly all of the mainstem Housatonic River from Pittsfield to Sheffield and many of its tributaries were priority habitat for one or more state-listed dragonfly species.

Freshwater Mussels: Five native freshwater mussel species were found during the survey, including the two target

state-listed species (triangle floater and creeper) and three others: eastern elliptio (*Elliptio complanata*), eastern floater (*Pyganodon cataracta*), and eastern lampmussel (*Lampsilis radiata*). The last was reported in the Massachusetts portion of the Housatonic watershed for the first time. The best freshwater mussel populations encountered occurred within physically or hydraulically stable river reaches, especially medium-gradient reaches with confined stable riverbanks, slow to moderate flow velocities, deep water, and sand and gravel substrates. Figure 8 shows the current (as of spring 2010) distribution of triangle floater and creeper EOs in the Housatonic watershed.

A total of 304 live triangle floaters were found at 23 mainstem locations and two tributary locations out of 54 total sites, for an average of 5.7 individuals/site (13.2 individuals/site among the sites where they were found), a catch-per-unit-effort (CPUE) of 5.1 individuals per hour, and a CPUE range from 0.0-70.0 individuals per hour. The survey greatly increased the number of triangle floater EOs in the critical supporting watershed from five to 30. Juvenile triangle floaters were only observed in two reaches—the upper Housatonic River in Pittsfield and between Hop Brook and Willow Mill Dam in Lee—and populations elsewhere exhibited highly skewed length distributions suggestive of geriatric (non-reproducing) populations. Triangle Floaters constituted 93 percent of all live mussels encountered in the upper 16 miles of the mainstem Housatonic River.

A total of 69 creepers were found at 17 locations, for an average of 1.3 individuals/site (4.0 individuals/site among the sites where they found), a catch-per-unit-effort (CPUE) of 0.8 individuals per hour, and a CPUE range from 0.0-12.7 individuals per hour. The survey greatly increased the number of creeper EOs in the watershed from four to 21. The average shell length of the creepers was 75.9 mm, which is larger than the maximum shell length of the species encountered in most other waterbodies in southern New England. This is the largest average shell length ever documented for a creeper population, and there is concern for the viability of a population with such a strongly skewed length/age distribution and apparent lack of recruitment.

Adult zebra mussels (*Dreissena polymorpha*) were detected in the Housatonic River in Lee for the first time ever while conducting the native freshwater mussel survey; these were located downstream of Laurel Brook in Lee, which connects to an established zebra mussel population in Laurel Lake.

Fish: Unusually high flows throughout the river in June-August of 2009 made it difficult to effectively sample fish using the techniques planned and equipment available; however, surveyors captured 1,068 fish from 27 sites and documented 23 species altogether. The bridle shiner was the only target species captured during the survey. It was found at three sites in Hop Brook (22 individual fish) although unconfirmed visual observations were made at several other sites. The bridle shiner was known from seven other sites in the watershed prior to NRD surveys. Longnose suckers were known from eight locations prior to the NRD survey but none were found in 2009, likely because they prefer deeper water than what was able to be surveyed in 2009 due to equipment limitations. Neither the burbot nor the trout-perch was found in 2009 but these species had not been reported in the study area since 1970 and 1942, respectively. Figure 9 shows the current (as of spring 2010) distribution of bridle shiner and longnose sucker EOs in the Housatonic watershed.

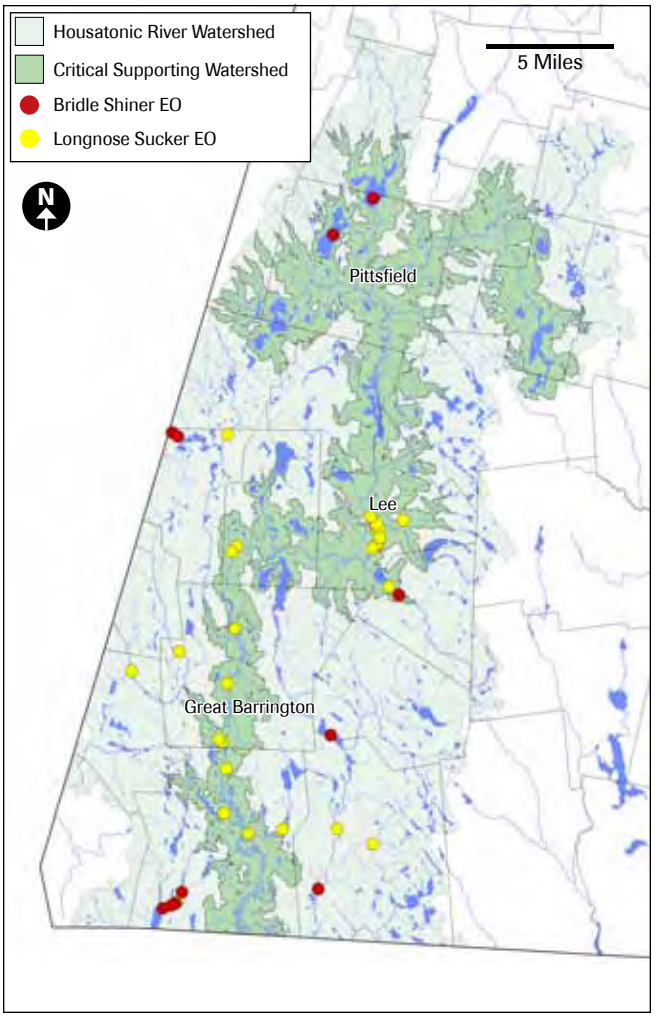

Figure 9. Current distribution of bridle shiner and longnose sucker EOs in the Housatonic watershed and critical supporting watershed. Data sources: MassGIS, NHESP database.

Salamanders: Initially, four-toed salamanders were found in only seven of 32 target wetlands but follow-up surveys

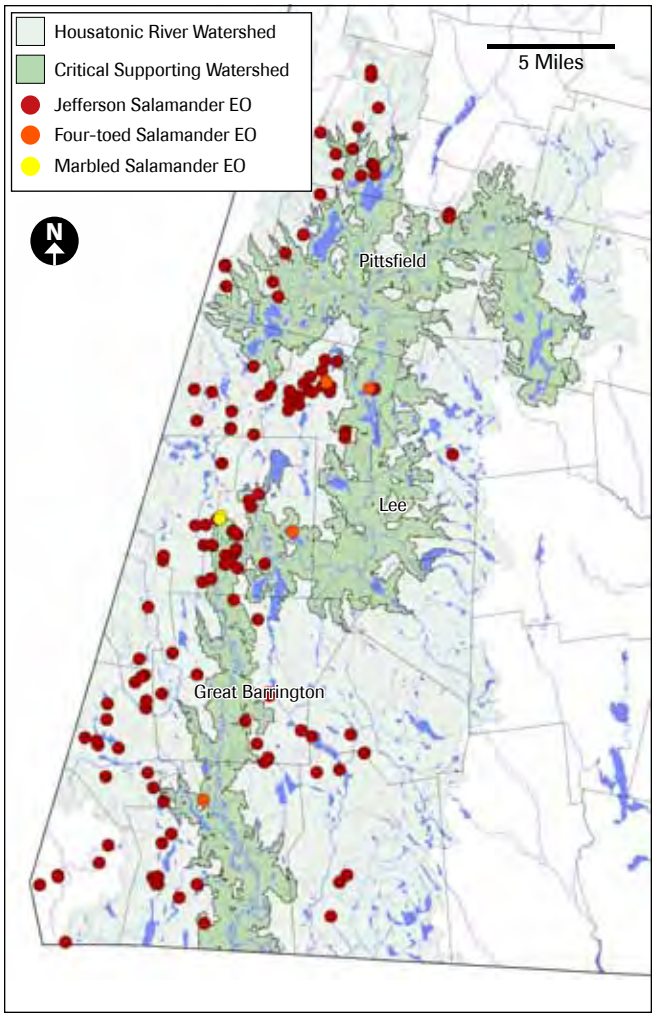

Figure 10. Current distribution of Jefferson, marbled, and four-toed salamanders in the Housatonic watershed and critical supporting watershed. Data sources: MassGIS, NHESP database.

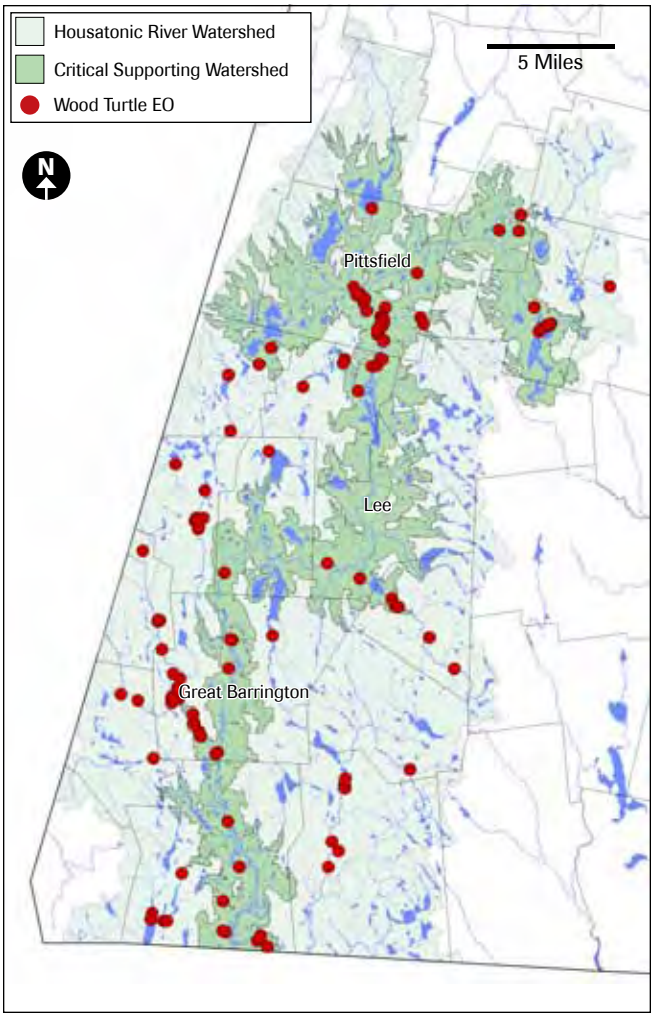

Figure 11. Current istribution of wood turtle EOs in the Housatonic watershed and critical supporting watershed. Several were newly documented during NRD surveys. Data sources: MassGIS, NHESP database.

were able to detect the species at some of the sites where it had not been found, underscoring the difficulty of finding this cryptic species. All nests were found in *Sphagnum* hummocks overhanging pools of water at least six inches deep, within forested wetlands or bogs. The species was removed from the MESA list in 2008 because it was widespread and locally common in Massachusetts and because its preferred habitat was considered stable.

Jefferson salamander egg masses were identified in 56 vernal pools and 21 additional pools need further investigation. This greatly increased the number of EOs for Jefferson salamanders in the critical supporting watershed (from seven prior to NRD surveys) and nearly doubled the number of Jefferson salamander records in Massachusetts. However, the study also noted a high incidence of nonviable eggs that may be related to hybridization between blue-spotted salamanders (*Ambystoma laterale*) and Jefferson salamanders.

The study documented three populations of the state-threatened marbled salamander, which also breed in vernal pools. These are the first records of marbled salamanders in Berkshire County and represent a significant westward range expansion from known populations in the Connecticut River watershed or perhaps a northward range expansion from known populations in northwest Connecticut. The current distribution of target salamander species is shown on Figure 10.

Turtles: Wood turtles were detected at 48 percent of the survey sites (19 of 40) located in the mainstem Housatonic River and at eight tributaries. Prior to the NRD surveys, wood turtles were known from 15 locations in the critical supporting watershed. Surveys confirmed suitable habitat at 11 locations where wood turtles had been previously documented and updated eight EOs. A total of 45 wood turtles were located, including 25 males, 15 females, and five unsexed juveniles. Captures of juvenile turtles and relatively high recruitment rates compared to

known populations in central Massachusetts and New Hampshire suggest high reproductive success; however, population densities were quite low compared to other regions. Investigators concluded that indeed wood turtles were widespread in the study area and that the observed low population densities might be related to high rates of adult mortality rather than low rates of reproductive success. At the three sites with the most captures, the percentage of individuals with tail or limb loss ranged from 23-78 percent and one road-killed juvenile wood turtle was found. Figure 11 shows the current distribution of wood turtle EOs in the Housatonic watershed.

Bog turtles were reconfirmed at the two sites where populations were known to occur but none were found at four other sites. Multiple nests, hatchlings, juveniles, and adults were found at each of the two primary sites, suggesting that these isolated populations are faring well and responding favorably to habitat restoration in the form of Phragmites removal. Radio-tagged males extensively used areas outside the area previously designated as core habitat. Lack of bog turtles at the four sites with suitable habitat underscores the rarity and isolation of bog turtle populations in Massachusetts.

No eastern box turtles were found during the survey. There have been several unconfirmed and anecdotal reports of individual box turtles in Berkshire County during the past 40 years, and a carapace was found at one site in 2009. These reports could be released pets or remnants of small, previously undocumented populations. Published distribution maps indicate that eastern box turtles are not present in Berkshire County, adjacent Taconic highlands of eastern New York, or northwestern Connecticut. The closest documented populations are in the Hudson Valley of New York and the southwest corner of Kent, Connecticut. There remains no conclusive evidence of an extant box turtle population in Berkshire County.

Marsh Birds: Surveys detected nine of ten target species, failing to find only the state-endangered Pied-Billed Grebe. The current distribution of marsh bird EOs (not separated by species) is shown on Figure 12. Surveys detected very low numbers of Least Bittern, King Rail, and Sedge Wren, all of which are Endangered in Massachusetts. Target species were observed in a variety of marsh communities, but cattail was the most important feature associated with presence of nearly all target species, especially Virginia Rail, Sora, Marsh Wren, Least Bittern, and Common Moorhen. Any potential disruption to cattail marshes, such as that from invasive Common Reed and Purple Loosestrife (*Lythrum salicaria*), represents a critical threat to marsh birds in the watershed. Common Reed and Purple Loosestrife was documented at 73 and 72 percent

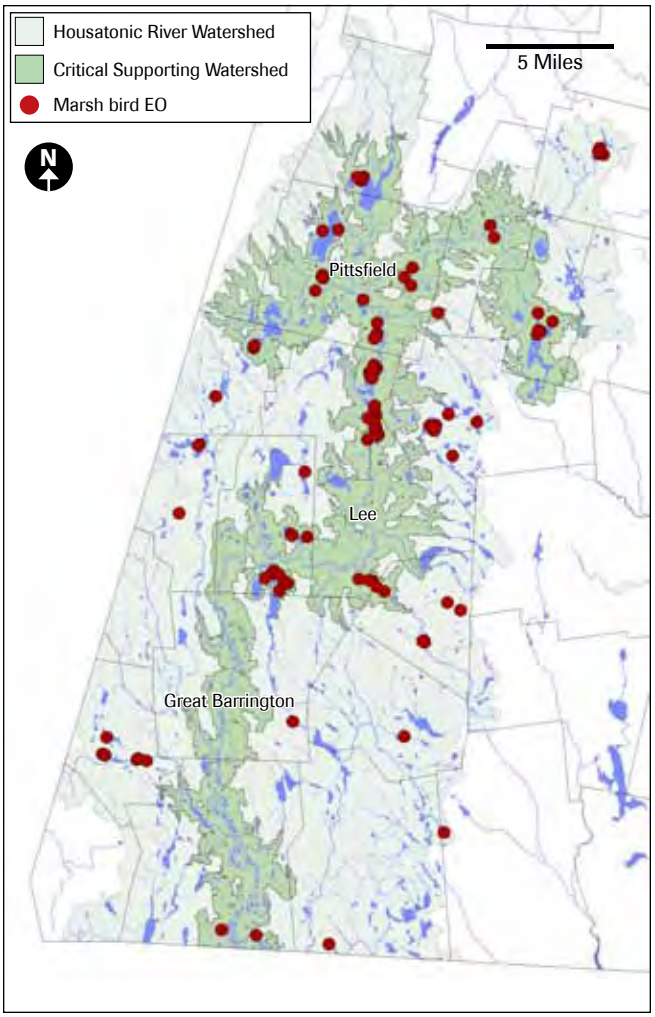

Figure 12. Current distribution of marsh bird EOs in the Housatonic watershed and critical supporting watershed.

Data sources: MassGIS, NHESP database.

of all survey sites, respectively, and occurred in remote and isolated wetlands. The beetle released to control purple loosestrife, *Galerucella*, was observed at 81 percent of the sites and appeared to be having a positive effect.

- **Virginia Rail:** Virginia Rails were observed at 62 percent of the survey sites and were the most commonly encountered of all target species. Most Virginia Rail territories were in cattail wetlands (63 percent), shrub marsh (17 percent), and Tussock Sedge marsh (10 percent). The Virginia Rail is not state-listed in Massachusetts; therefore, accurate records of sightings prior to NRD surveys are not available. It was included as a member of the marsh bird group.
- **Sora:** Sora were observed at six percent of the survey sites (five sites) and only one of these sites supported two Sora territories. Wetlands were typically associated with wide riparian basins and cattails were usually the dominant species. Survey results reinforce

Marsh habitats with abundant cattails (*Typha* spp.) and good structure of native vegetation were preferred by most target species of marsh birds. Patricia Serrentino.

a perception among ornithologists that Sora are declining throughout Massachusetts. The Sora was included in this study because it is in the marsh bird group and was included in the Massachusetts Wildlife Action Plan (MDFW 2006), but it is not state-listed in Massachusetts.

- **American Bittern:** American Bittern were observed at 16 locations (nearly 20 percent of all survey sites), including seven sites where American Bitterns had been observed before and nine sites that lacked prior records. They were not confirmed at five existing EOs. American Bittern were observed in a variety of conditions including wet meadows, palustrine cattail basin, riparian cattail wetland, and shrub marsh. Multiple territories and displaying males were observed within the 680-acre wetland at Hinsdale Flats Wildlife Management Area.
- **Least Bittern:** Least Bittern were observed at only two survey sites, representing only 2.5 percent of all survey sites. Three birds were observed: a lone vocalizing individual in a cattail marsh on October Mountain and a pair of foraging birds in a sedge/shrub marsh area in Hinsdale Flats Wildlife Management Area. Least Bittern appeared to be absent from seemingly suitable sites throughout the study area.
- **King Rail:** Only one King Rail was observed during the project. It responded to a broadcast call in the wet meadow near Hop Brook in Tyringham. The specific habitat included a wet meadow with tall lush sedges, some Reed Canary Grass, and shrubs such as alders and willow. The bird was never seen, and it was only heard twice on a single visit.
- **Common Moorhen:** The Common Moorhen was observed at four locations, all of which contained dense cattail beds adjacent to open water. Three sites confirmed existing records and the fourth represents a new location for the species. Although the species is rare in Massachusetts, highest densities are thought to occur in wetlands near the Housatonic River above Woods Pond, and it was surprising that more birds were not observed in 2008-2009. Sites where the species is consistently reported, such as coves of the Housatonic River and Woods Pond, yielded no sightings in 2008 or 2009.
- **Pied-Billed Grebe:** The Pied-Billed Grebe was not detected during the surveys, despite the presence of apparently suitable habitat. This is one of the rarest breeding birds in Massachusetts, with only three

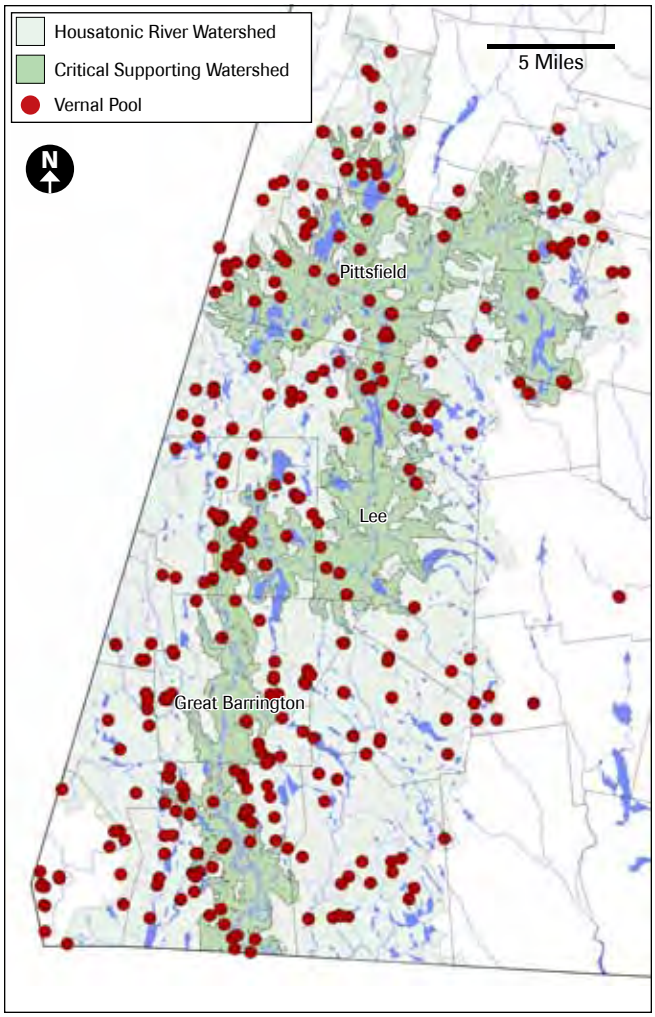

Figure 13. Current distribution of documented vernal pools in the Housatonic watershed and critical supporting watershed.

Data sources: MassGIS, NHESP database.

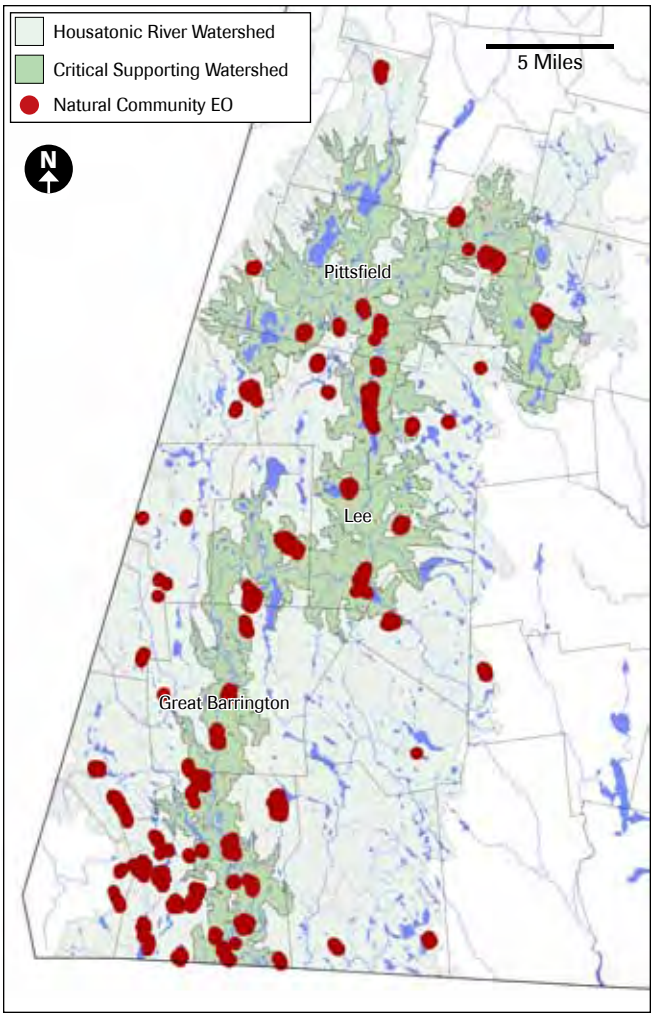

Figure 14. Current distribution of priority natural community EOs in the Housatonic watershed and critical supporting watershed.

Data sources: MassGIS, NHESP database.

breeding locations reported by Crowley (1994). The decline of this species between the mid-19th century and the present time is thought to be related to destruction of its preferred wetlands of aquatic bed vegetation adjacent to emergent cattail marsh.

- **Sedge Wren:** A single Sedge Wren was observed at one location during the survey, singing vigorously for the duration of the survey period. Sedge Wrens had been documented in the same wetland complex prior to NRD surveys. The Sedge Wren is very rare in Massachusetts, and the single bird was not surprising, although prime habitat was observed elsewhere (such as wet meadows along Hop Brook in Tyringham).
- **Marsh Wren:** Marsh Wrens were observed in 12 percent of the survey sites, mostly within riparian cattail beds in the Pittsfield, Richmond, and Lenox areas. A total of 46 Marsh Wren territories were observed; most sites supported multiple territories (up to 16 territories at one site) and numbers of pairs tended to increase as the season progressed. This species is not state-listed in Massachusetts.
- **Green Heron:** Green Herons were observed at 15 percent of the survey sites. This may not be a reliable indication of their distribution, because broadcasting calls does not increase detectability and observations were entirely visual and opportunistic. In addition, its preferred breeding habitat—wooded swamps and shrub swamps—were not targeted for surveys. The Green Heron was included in this study because it was included in the Massachusetts Wildlife Action Plan (MDFW 2006), but it is neither state-listed in Massachusetts nor is it considered a potential candidate for MESA protection.

Vernal Pools: During the two-year study, a total of 520 PVPs were surveyed, mostly within the critical supporting watershed. Of these, 361 wetlands met current vernal pool certification criteria based on presence of ambystomid

salamanders, wood frogs, or fairy shrimp in 48, 43, and six percent of the wetlands, respectively. Obligate vernal pool species appear to be thriving in the watershed. Only 70 vernal pools were certified in the critical supporting watershed prior to the NRD survey. The current distribution of vernal pools is shown on Figure 13.

Natural Communities: In 2008, 26 locations (13 prior EOs and 13 potential locations) were surveyed. The targeted community types were found at each site, thus producing 13 updated EOs and 13 new EOs. In 2009, 21 locations (seven prior EOs and 14 potential locations) were surveyed. Once again, surveys confirmed all prior EOs and also documented 14 new EOs. In total, 20 prior EOs were updated and 27 new EOs were discovered over the course of this study. The new EOs represented 16 different priority community types (Table 2). A total of 18 different community types were observed, including several communities not previously documented: alluvial red maple swamp, black ash swamp, calcareous rock summit, and high terrace floodplain forest. In addition, a new community type was documented: red maple-black ash-bur oak community. This new community type has not been assigned a rank but will likely receive S2. The current distribution of priority natural communities in the Housatonic watershed is shown on Figure 14.

II. Quantitative Performance Measures

To track accomplishments and to provide accountability for the surveys, NHESP attempted to compile information on level of effort for individual studies, the number of survey sites visited, reconfirmed EOs, and new EOs (Table 4). These summaries demonstrate an impressive amount of work completed for the NRD surveys, and, indeed, this is the most intensive and comprehensive survey effort ever undertaken by NHESP. There was some disparity in the tracking and reporting of the level of effort among different studies and therefore performance measures are not precise, but they reasonably represent the accomplishments of the project.

- **Personnel:** Fieldwork was completed by nearly 50 people including NHESP staff, 17 contracted experts and their technicians, students, or volunteer assistants.
- **Survey Sites:** Approximately 1,837 "sites" of varying size (from individual vernal pools to long river reaches [>2 miles]) were visited. Some of these were visited numerous times, including three visits for each of the 81 marsh bird sites and as many as 31 visits for individual wood turtle sites. Overall, nearly 2,500 site visits were completed.
- **Time:** The total time spent on fieldwork was approximately 495 days and represented more than 9,000 person-hours. Not included in these numbers are the unrecorded hours that NHESP staff and primary contractors put toward planning, travelling, laboratory work (especially dragonfly identification and moth rearing), data analysis, and submitting forms and reports to NHESP. Also not included is the time devoted toward data management, GIS, and data analysis required to assimilate data for the NHESP database and to prepare a technical report.
- **Species and Natural Communities:** Surveys targeted 31 state-listed plants, 29 state-listed animals, and 12 priority natural community types (see Table 2). Forty-seven of the target species (23 plants and 24 animals) were found, and an additional 15 state-listed plant species and six state-listed animal species were also found. Among the newly documented species were ten Endangered, five Threatened, and six Special Concern species. All of the target natural community types were found, and an additional four priority natural community types were documented in the critical supporting watershed for the first time.
- **Element Occurrences:** Surveys reconfirmed approximately 135 EOs and documented 170 new EOs (Table 4). Target groups or species with the greatest increase in the number of EOs in the watershed resulting from the survey included Jefferson salamanders, freshwater mussels, and dragonflies. Large increases in the number of EOs for these groups reflect the quality of the field studies and the limited survey efforts prior to 2008. Well-studied taxonomic groups such as plants, turtles, and marsh birds showed much more modest gains or even declines (as in the case of marsh birds).

DISCUSSION

I. Priority Areas

Core habitats for state-listed species and rare natural community types occur throughout the entire Housatonic watershed and its critical supporting watershed (Figure 15), including all towns in the primary study area. The distribution of core habitats is discontinuous, with higher concentrations in aquatic, wetland, floodplain, and rich mesic environments, especially in areas with the least amount of urban lands. Urban and agricultural lands and associated transportation infrastructure and dams have fragmented the landscape. Some critical habitats are embedded within developed areas and it is challenging to maintain both habitat quality in these areas and connectivity with other areas.

Table 4. Results of the NRD study in terms of reconfirmed and new EOs for each target plus non-target state-listed species and priority natural communities. Not all EOs, especially recent ones, known prior to the NRD study were survey targets. Data from NHESP database.

			Number of EOs			
Common Name	Latin Name	Rank	Pre-NRD Study	Reconfirmed	New	New Total
Plants						
Black Maple	*Acer nigrum*	SC	9	8	0	8
Black Cohosh	*Actaea racemosa*	E	1	1	0	1
Climbing Fumitory	*Adlumia fungosa*	SC	1	0	1	2
Small-flowered Agrimony	*Agrimonia parviflora*	E	2	2	0	2
Green Dragon	*Arisaema dracontium*	T	3	3	0	3
Mountain Spleenwort	*Asplenium montanum*	E	2	1	0	2
Smooth Rock-cress	*Boechera laevigata*	T	2	0	1	3
Purple Cress	*Cardamine douglassii*	E	2	0	2	2
Foxtail Sedge	*Carex alopecoidea*	T	5	2	2	7
Davis's Sedge	*Carex davisii*	E	1	1	3	4
Gray's Sedge	*Carex grayi*	T	5	3	2	6
Hairy-fruited Sedge	*Carex trichocarpa*	T	0	0	0	0
Tuckerman's Sedge	*Carex tuckermanii*	E	3	1	2	4
Cat-tail Sedge	*Carex typhina*	T	0	0	1	1
Narrow-leaved Spring Beauty	*Claytonia virginica*	E	2	1	2	4
Hemlock Parsley	*Conioselinum chinense*	SC	5	2	0	5
Showy Lady's-slipper	*Cypripedium reginae*	SC	6	1	0	5
Wright's Spike-rush	*Eleocharis diandra*	E	0	0	0	0
Intermediate Spike-sedge	*Eleocharis intermedia*	T	4	2	3	7
Ovate Spike-rush	*Eleocharis ovata*	E	0	0	0	0
Hairy Wild Rye	*Elymus villosus*	E	2	2	1	3
Dwarf Scouring-rush	*Equisetum scirpoides*	SC	4	1	0	4
Frank's Lovegrass	*Eragrostis frankii*	SC	5	4	1	6
Andrews' Bottle Gentian	*Gentiana andrewsii*	E	3	1	0	3
Giant St. John's-wort	*Hypericum ascyron*	E	1	1	2	3
Great Blue Lobelia	*Lobelia siphilitica*	E	8	2	0	8
Hairy Honeysuckle	*Lonicera hirsuta*	E	1	1	0	1
Many-fruited False-loosestrife	*Ludwigia polycarpa*	E	0	0	0	0
Winged Monkeyflower	*Mimulus alatus*	E	0	0	0	0
Comb Water-milfoil	*Myriophyllum verticillatum*	E	2	1	0	2
Tiny Cow-lily	*Nuphar microphylla*	E	1	0	0	1
Drooping Speargrass	*Poa saltuensis ssp. languida*	E	0	0	1	1
Hill's Pondweed	*Potamogeton hillii*	SC	7	1	0	5
Ogden's Pondweed	*Potamogeton ogdenii*	E	2	1	0	2
Bur Oak	*Quercus macrocarpa*	SC	9	5	3	11
Yellow Oak	*Quercus muehlenbergii*	T	4	2	0	4
Bristly Buttercup	*Ranunculus pensylvanicus*	T	5	2	0	5
Swamp Dock	*Rumex verticillatus*	T	0	0	0	0
Wapato	*Sagittaria cuneata*	T	11	8	0	11
Long-styled Sanicle	*Sanicula odorata*	T	7	3	0	7
Wild Senna	*Senna hebecarpa*	E	0	0	0	0
Shining Wedgegrass	*Sphenopholis nitida*	T	0	0	1	1
Small Dropseed	*Sporobolus neglectus*	E	2	1	2	3
Crooked-stem Aster	*Symphyotrichum prenanthoides*	T	9	1	0	9
Culver's-root	*Veronicastrum virginicum*	T	4	1	0	4
Barren Strawberry	*Waldsteinia fragarioides*	SC	5	1	0	5
Moths and Butterflies						
Dion Skipper	*Euphyes dion*	T	3	3	3	6
Mustard White	*Pieris oleracea*	T	1	4	2	6
Ostrich Fern Borer	*Papaipema sp. 2 near pterisii*	SC	0	0	6	6
Dragonflies						
Arrow Clubtail	*Stylurus spiniceps*	T	3	3	1	4
Zebra Clubtail	*Stylurus scudderi*	SC	2	1	3	4
Brook Snaketail	*Ophiogomphus aspersus*	SC	0	0	5	5
Riffle Snaketail	*Ophiogomphus carolus*	T	1	0	1	1
Skillet Clubtail	*Gomphus ventricosus*	SC	0	0	2	2
Spine-crowned Clubtail	*Gomphus abbreviatus*	E	0	0	2	2
Rapids Clubtail	*Gomphus quadricolor*	T	0	0	1	1
Harpoon Clubtail	*Gomphus descriptus*	E	0	0	3	3
Ocellated Darner	*Boyeria grafiana*	SC	1	0	4	5
Stygian Shadowdragon	*Neurocordulia yamaskanensis*	SC	1	1	1	2
Freshwater Mussels						
Triangle Floater	*Alasmidonta undulata*	SC	5	5	20	25
Creeper	*Strophitus undulatus*	SC	4	4	13	17
Fish						
Burbot	*Lota lota*	SC	0	0	0	0
Trout Perch	*Percopsis omiscomaycus*	EXT	0	0	0	0
Bridle Shiner	*Notropis bifrenatus*	SC	7	1	0	7
Longnose Sucker	*Catostomus catostomus*	SC	8	0	0	8
Salamanders						
Four-toed Salamander	*Hemidactylium scutatum*	NL	4	1	De-listed, no longer tracked	
Jefferson Salamander	*Ambystoma jeffersonianum*	SC	8	2	2	13
Marbled Salamander	*Ambystoma opacum*	T	0	0	3	3

Table 4. (continued).

Common Name	Latin Name	Rank	Number of EOs Pre-NRD Study*	Reconfirmed	New	New Total**
Turtles						
Wood Turtle	*Glyptemys insculpta*	SC	15	8	4	18
Bog Turtle	*Glyptemys muhlenbergii*	E	2	2	0	2
Eastern Box Turtle	*Terrapene c. carolina*	SC	0	0	0	0
Marsh Birds						
Virginia Rail	*Rallus limicola*	NL	-	-	-	-
Sora	*Porzana carolina*	NL	-	-	-	-
American Bittern	*Botaurus lentiginosus*	E	12	7	9	12
Least Bittern	*Ixobrychus exilis*	E	1	0	2	2
King Rail	*Rallus elegans*	E	1	0	1	2
Common Moorhen	*Gallinula chloropus*	SC	9	3	1	10
Pied-billed Grebe	*Podilymbus podiceps*	E	4	0	0	4
Sedge Wren	*Cistothorus platensis*	E	2	1	0	2
Marsh Wren	*Cistothorus palustris*	NL	-	-	-	-
Green Heron	*Butorides virescens*	NL	-	-	-	-
Priority Freshwater Communities						
Acidic Graminoid Fen		S3	1	0	0	1
Alluvial Red Maple Swamp		S3	0	0	1	1
Black Ash Swamp		S2	0	0	1	1
Black Ash-Red Maple-Tamarack Calcareous Seepage Swamp		S2	6	1	0	6
Calcareous Basin Fen		S1	2	0	0	2
Calcareous Sloping Fen		S2	2	0	1	2
High Terrace Floodplain Forest		S2	0	0	3	3
Level Bog		S3	1	0	0	1
Major-River Floodplain Forest		S2	4	4	4	8
Red Maple-Black Ash-Bur Oak Swamp		S2	0	0	1	1
Small-River Floodplain Forest		S2	1	0	0	1
Spruce-Fir Boreal Swamp		S3	1	1	0	1
Transitional Floodplain Forest		S2	2	2	3	5
Priority Terrestrial Communities						
Calcareous Forest Seep		S2	1	1	?	1
Calcareous Rock Cliff		S3	2	1	0	2
Calcareous Rocky Summit/Rock Outcrop		S2	1	1	2	3
Rich Mesic Forest		S3	3	2	2	5
Ridgetop Pitch Pine-Scrub Oak		S2	1	0	0	1
Yellow Oak Dry Calcareous Forest		S2	1	0	0	1

* Some of the original occurrences were about to expire, so numbers may not sum in the total if they were not confirmed.
** Numbers may not add because the new total is for the critical supporting watershed and some of the survey findings were out of the critical supporting watershed.

Although the prioritization component of this project is not yet complete, Figure 15 highlights some areas of the critical supporting watershed that will likely emerge as high priorities for protection, restoration, or management (Areas 1-4). This is largely based on locations of clusters of Endangered or Threatened species and high priority (S1 or S2) natural community types. These four areas were subjectively outlined and described in this report to provide a brief illustration of the process and their selection was not meant to diminish the importance of other areas, but rather to explain the importance of a select few. Actual prioritization, which will occur after the completion of this report, will be a more quantitative process. A complete analysis of town-scale and regional-scale priorities will be provided in subsequent materials.

Area 1: This area includes the Housatonic River and its floodplains, nearby uplands, and tributaries from Woods Pond in Lenox to Pittsfield. It includes the lower part of the West Branch Housatonic River. Towns within this area include Lee, Lenox, Washington, and Pittsfield. Good examples of priority natural community types associated with streams and rivers, floodplains, and calcareous wetlands occur in this area. Thirty-four state-listed species have been observed within this area, including 19 plant species and 15 animal species. Wetlands are important for several species of rare marsh birds, including the Least Bittern, American Bittern, and Common Moorhen. Rare aquatic species include the wood turtle, triangle floater, and four dragonfly species. Much of this area falls within the Housatonic Valley Wildlife Management Area and October Mountain State Forest but additional conservation opportunities exist. The entire area falls within an area designated as the Upper Housatonic River Area of Critical Environmental Concern (ACEC) by the Massachusetts Executive Office of Environmental Affairs in 2009.

Area 2: This area includes much of the Hop Brook subwatershed in Lee and Tyringham and a two-mile reach of the Housatonic River in Lee. The conspicuously higher concentration of priority habitat in this small narrow valley appears as an island within a large area that otherwise lacks priority habitat, including Beartown State Forest, with its predominantly upland forest habitat, to the south and west. Route 102, the Massachusetts Turnpike, a railroad

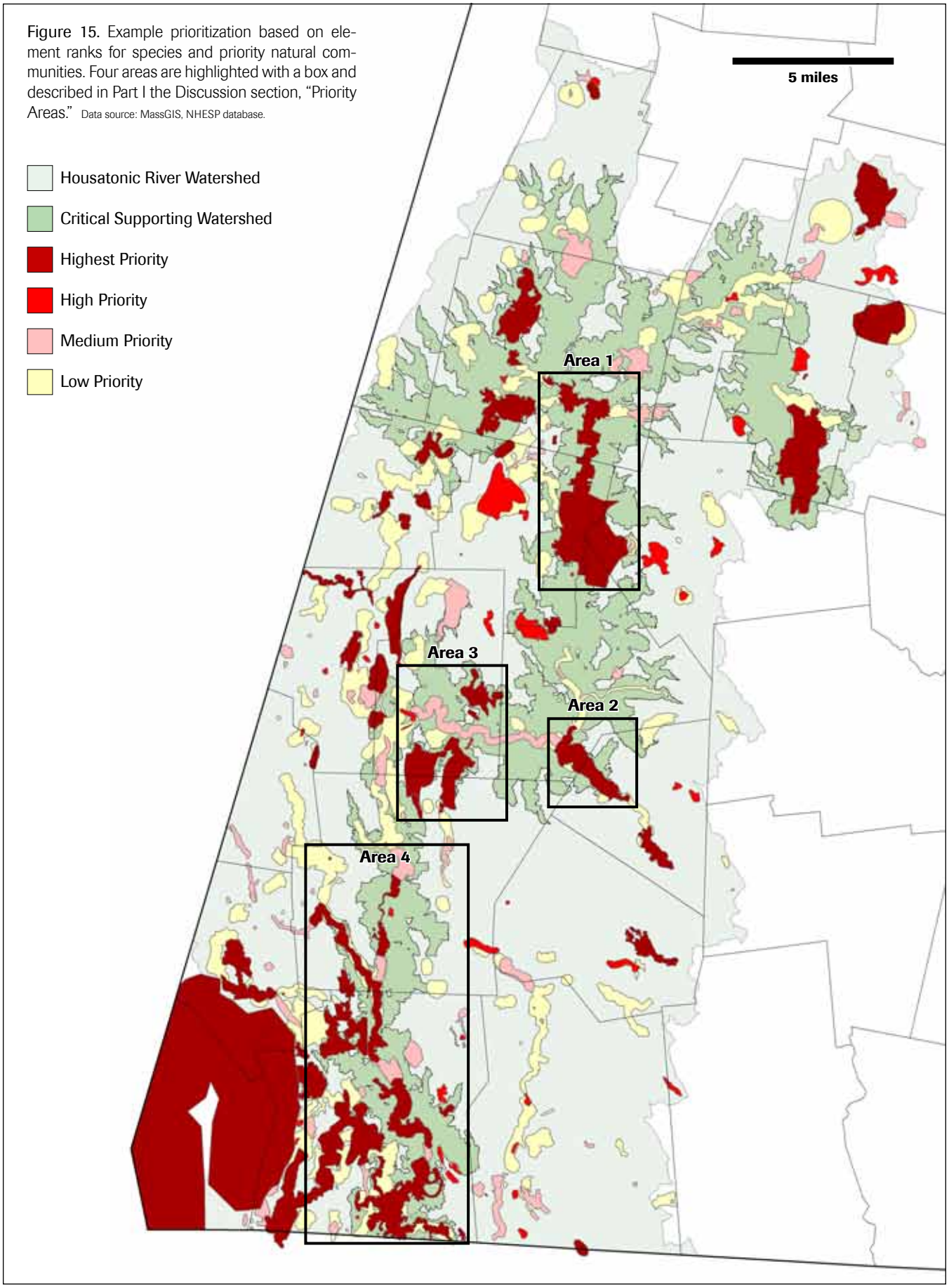

Figure 15. Example prioritization based on element ranks for species and priority natural communities. Four areas are highlighted with a box and described in Part I the Discussion section, "Priority Areas." Data source: MassGIS, NHESP database.

Calcareous sloping fen near Spurr Lake in Sheffield. Michael Batcher.

line, and urban and industrial lands of Lee disconnect this area from high priority habitats to the north. Although this is a relatively small area of riverine and associated wetland habitats, three priority natural community types, eight state-listed plant species, and ten state-listed animal species occur in this area. This was the only stream where state-listed fish (the bridle shiner) were found in 2009 and also supports wood turtles and triangle floaters. The results of the freshwater mussel survey demonstrated that populations of three mussel species, including two state-listed species, increased dramatically in the Housatonic River starting at the confluence of Hop Brook compared to population densities in nearly ten miles of the Housatonic River upstream of the confluence. Hop Brook contains one of the largest eastern elliptio populations documented in the two-year study.

Area 3: This general area spans much of southern Stockbridge and northern Great Barrington and includes the areas along the Housatonic River, small tributaries and their associated wetlands, and terrestrial habitats on the slopes of Monument Mountain. Forty-eight state-listed species and four priority natural community types—including a critically imperiled calcareous basin fen (S1)—have been observed in this area. The area also contains the State's best example of a Black Ash-Red Maple-Tamarack Calcareous Seepage Swamp (S2) at Kampoosa Bog and Fen. A total of 32 rare plant species and 16 rare animal species occur in the area, most closely connected with the river. Among the rare animals are five dragonfly species, three marsh bird species, two freshwater mussel species, two fish species, two reptile species, and one rare amphibian species. The area is particularly important for wood turtles. Some of the most important priority habitats and natural community occurrences are not protected as conservation land.

Area 4: This portion of the watershed spans most of Sheffield and southern Great Barrington. This is one of the most biologically rich areas in Massachusetts, and it has a very high concentration of priority habitats. The town of Sheffield has the third highest number of EOs among all towns in Massachusetts and is the only town in the top ten that does not occur in the southeastern coastal plain or Cape Cod. A total of 84 state-listed species (64 plants and 20 animals) have been observed in this area, as well as 21 natural community types. Among the plants are 32 Endangered species and 16 Threatened species, many of

which inhabit rich mesic forests and calcareous wetlands. State-listed animals include butterflies, dragonflies, freshwater mussels, amphipods, turtles, snakes, fish, birds, and salamanders. Although some of the most valuable sites in this region are protected (such as Bartholomews Cobble and areas along Schenob Brook), additional protection is needed for many large critical parcels. In this region, agriculture and grazing are prevalent in the floodplain, and much of the valuable floodplain forest has been lost. The river is actively migrating across unforested and therefore more easily erodible, floodplain soils and causing sedimentation problems throughout this reach.

II. Threats

There are numerous threats to biodiversity in the Housatonic watershed, and it is beyond the scope of this technical document to identify and describe them all. During the course of field studies, contractors and NHESP staff most frequently noted two primary classes of threats: (1) non-native invasive species and (2) channel and floodplain alteration. Pollution was noted as a concern for the Housatonic River because of PCBs, point source discharges (industries and wastewater treatment plants), and urban runoff.

Non-native Invasive Species: Nearly all studies mentioned one or more non-native invasive species with strong potential to change fundamental ecosystem processes and functions, and, ultimately, the native species assemblages that make the Housatonic watershed such a special place. Strategies to control the spread of invasive species and encourage native species will be some of the most important elements of a comprehensive watershed biodiversity protection plan. Some of the most damaging invasive species in North America, such as zebra mussels, common reed, purple loosestrife, water chestnut (*Trapa natans*), and Eurasian water-milfoil (*Myriophyllum spicatum*), are firmly established in aquatic and wetland habitats in the Housatonic watershed. A remarkable number of non-native and invasive upland plants are proliferating in abandoned farmlands and other disturbed areas of the watershed. From these sources, they are encroaching on intact forests; species such as garlic mustard, Morrow's honeysuckle (*Lonicera morrowii*), Japanese barberry (*Berberis thunbergii*), Oriental bittersweet (*Celastrus orbiculatus*), European buckthorn (*Rhamnus frangula*), Japanese knotweed (*Fallopia japonica*), and multiflora rose (*Rosa multiflora*) are leading this charge. The following are specific examples most relevant to the NRD surveys:

- Bog turtle habitats are threatened by the presence of common reed, purple loosestrife, and reed canary grass. These species outcompete native vegetation and form a monoculture that may eliminate important microhabitats that turtles may need for nesting, basking, or feeding. In one of the bog turtle sites, scientists documented bog turtles' increasing use of marsh habitat after common reed was removed.
- Marsh bird surveyors noted a high incidence of common reed and purple loosestrife infestations

Three highly invasive species that are firmly established in the Housatonic wastershed. Top: zebra mussel from the Housatonic River. Middle: Monoculture of Japanese knotweed on the banks of the Housatonic River. Bottom: Dense growth of water chestnut covering the surface of Woods Pond. Ethan Nedeau.

in study sites (73 and 72 percent of all survey sites, respectively, including some remote and isolated wetlands). Both of these species threaten native marsh vegetation that is critical to marsh birds, especially cattails and several species of sedges. The beetle released to control purple loosestrife, *Galerucella*, was observed at 81 percent of the sites and did appear to be having a positive effect.

- Zebra mussels were discovered in Laurel Lake and in the Housatonic River in the towns of Lee, Lenox, and Stockbridge during surveys in 2009. Water chemistry in these waterbodies is ideal for zebra mussels, although physical habitat in the Massachusetts portion of the Housatonic River appears to be mostly confined to impoundments. Zebra mussels have the potential to greatly alter ecosystem processes in the Housatonic River and have adverse effects on benthic invertebrates and some fish species. A second concern is the potential effect zebra mussels may have on uptake and bioaccumulation of toxins, such as PCBs, because they are benthic filter feeders that have been shown to efficiently uptake toxins and are eaten by a variety of fish, mammals, and waterbirds.
- Invasive aquatic plants are present in lakes, ponds, and suitable river habitats throughout the watershed. Woods Pond is almost completely infested with water chestnut and represents a source population for other suitable areas in the watershed. A high percentage of lakes have Eurasian water-milfoil, variable water-milfoil (*Myriophyllum heterophyllum*), lesser naiad (*Najas minor*), coontail (*Ceratophyllum demersum*), and curly pondweed (*Potamogeton crispus*). These species affect native plant and animal species to varying degrees, and efforts to control them by physical or chemical means often have important non-target adverse affects.
- Japanese knotweed is prolific on recently disturbed sites and is one of the most abundant plant species on riverbanks and gravel bars along much of the Housatonic River. It provides very little shade or other values to wildlife and is a poor substitute for preferred native riparian vegetation such as silver maple (*Acer saccharinum*).

Channel and Floodplain Alteration: The complex set of problems associated with the floodplain and channel processes in the Housatonic River is rooted in the long history of landscape alteration, settlement patterns, and structural control of the river (e.g., dams, channelization, bank armoring). Humans sculpted the river and its floodplain to meet the myriad needs of a growing population: road and rail infrastructure, agriculture, industrial and municipal demands for water and wastewater treatment, waste disposal, urban development, and generation of electricity. The major results of this activity were the loss or degradation of floodplain forests and wetlands, loss of natural flood storage capacity, altered natural flow regimes (in the river and its major tributaries), destabilization of instream habitats and riverbanks, and degraded water quality.

Long reaches of the Housatonic River, including this area near Great Barrington, have a homogenous stream channel of unstable sandy sediments that provide poor habitat for invertebrates. Ethan Nedeau.

Some of the most visible symptoms of these problems are deeply incised channels and severely eroding riverbanks, especially in unconfined reaches where the river is actively migrating across easily erodible floodplain soils as it tries to reestablish equilibrium. Narrow strips of riparian trees, such as silver maple, willow (*Salix* spp.) and boxelder (*Acer negundo*), are being lost with no forest behind them to provide stability and cover after the river claims those few. More expansive riparian forests are needed. Opportunistic and aggressive plant species such as Japanese knotweed are colonizing disturbed streambanks. Cutoff oxbows, other former river channels, and wet depressions are quickly filled by common reed and purple loosestrife rather than more desirable native species. Because of the tremendous amount of sediment exported to the river, vast areas of the Housatonic River have a homogenous and unstable sand substrate that provides poor habitat for aquatic invertebrates and fish. This situation is not likely to improve in the near term.

The currently employed methods of dealing with unstable and eroding banks, such as riprap, exacerbate the problems associated with an unstable river environment, fail to provide a long-term solution to these problems, and ultimately contribute to a more homogenous river environment (Kline *et al*. 2006). The river needs to be given access to its floodplain so that it can heal itself and redevelop the habitat complexity that can support

Severe bank erosion along a long section of riverbank in Sheffield that lacks any riparian vegetation aside from grass. Ethan Nedeau.

a full suite of native species. A minimum 200-foot buffer should be established along the river, but broader floodplain protection areas should be established where the river needs greater room, where the floodplain can capture and store floodwaters, and where exemplary natural communities exist and can maintain themselves over time. Undersized culverts should be replaced by culverts or bridges of an appropriate size to restore hydrologic regimes and continuity for migratory animals (Massachusetts Riverways Program 2005), especially where roads and railways cross small tributaries in the Housatonic River floodplain. This report strongly urges resource managers to invest in a clearer understanding of the dynamic nature of the upper Housatonic River and to seek ways to restore a more natural river environment.

Pollution: Numerous current and historic point sources of pollution exist along the Housatonic River, mainly from industries and wastewater treatment plants. There are well documented PCB levels in the Housatonic River and portions of its floodplain, especially between Pittsfield and Woods Pond. However, it is beyond the scope of this technical report to address this pollution source. Information on PCB contamination in the Housatonic River is available on EPA's GE/Housatonic website, www.epa.gov/ne/ge/index. Surface runoff from urban areas and golf courses near Pittsfield, Lee, and Great Barrington carries high levels of nitrogen, phosphorus, road salt, sediment, oils, metals, pesticides, bacterial pathogens, and other toxic materials. All of these pollutants will influence aquatic species such as freshwater mussels, other aquatic invertebrates (including dragonflies), fish, and the high-level predators that consume them such as river otter and birds.

III. Next Steps

Prioritization: One of the primary goals of the project was to identify and prioritize sites for conservation of rare species and exemplary natural communities based on updated survey data. Three broad classes of conservation strategies may include protection (e.g., land acquisition or conservation easements), restoration (e.g., dam removal or reestablishing natural conditions), and management (e.g., invasive species control, prescribed burns, or mowing). The prioritization process is an ongoing collaborative process, and final results are not presented in this report. Final prioritization is expected to be part of a biodiversity protection plan that will be presented in town reports and a non-technical summary report. The prioritization

Early morning on a marsh in Great Barrington. Patricia Serrentino.

process will benefit from analyses being undertaken by NHESP for its *BioMap 2* project due in late 2010.

Town Reports: NHESP will provide conservation planning materials to 19 towns included in the critical supporting watershed. The materials will be a blueprint for conserving rare species and natural communities. Materials will be based on data acquired during the NRD study but will also include other rare species information that NHESP has for each town. Reports will be explicit about what is in each town and will also provide specific recommendations for protection, restoration, or management, which will distinguish these town reports from the more general overviews provided by *BioMap* (NHESP 2001) and Living Waters (NHESP 2003). The timeframe for the completion of town reports was extended to late 2010 to allow *BioMap 2* to be completed so that new information can be integrated into town reports. Town reports and details of specific conservation needs will be useful in prioritizing projects and evaluating proposals in subsequent rounds of NRD restoration funding.

Public Report: Although not included in the original proposal to NRD, NHESP felt it was necessary to provide a non-technical summary of survey results to state agencies, conservation groups, municipalities, and citizens. This will provide an opportunity to generally discuss the need for biodiversity protection in the watershed and outline NHESP's commitment to that process. The public report will discuss biodiversity, introduce town reports, and discuss priorities for protection, restoration, and management. Photographs, maps, and illustrations will help make this publication more engaging and appealing to a general audience. NHESP hopes that this document will help increase broad support for biodiversity protection in the watershed. The timeframe for completion is late 2010.

For a long time, conservationists have recognized the importance of the Housatonic River watershed to the biodiversity of Massachusetts and this survey strengthened that conviction. The project saw the updating of records and the discovery of many new occurrences of rare species and priority natural communities that were recently or historically known from the watershed, and also included

the identification of several rare species never before documented in the watershed. There does not appear to have been a significant decline in the number of species or priority natural community types despite the long history of human influence in the watershed, although some have declined in abundance and distribution (population or occurrence quality). Native habitats are changing due to the combined effects of habitat degradation, non-native invasive species, and natural succession. However, surveys demonstrate that it may not be not too late to reverse trends and preserve biodiversity if the most severe problems are addressed, including the threats of non-native species, channel and floodplain alteration, and pollution. Accomplishing this will require the collective and coordinated efforts of state and federal agencies, local governments, conservation groups, and citizens.

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FEBRUARY 18, 2011 - ADDENDUM TO COMMONWEALTH OF MASSACHUSETTS JANUARY 31, 2011 REVISED CMS COMMENTS: EXPLANATION OF HOUSATONIC RIVER REMEDIATION AND CORE HABITAT MAPS

February 18, 2011

Addendum to Commonwealth of Massachusetts January 31, 2011 Revised CMS Comments:
Explanation of the Housatonic Floodplain Remediation & Core Habitat Areas Map

In our January 31, 2011 comment letter on the revised CMS, the Commonwealth noted that EPA has established a range of human health risk limits to guide the remedy selection. We stated that we support remediation to meet EPA's human health cancer risk limit of 10^{-4} and non-cancer risk limit equal to a hazard index of 1, and further remediation to add a layer of protection when it can be done without causing significant environmental damage. Consistent with these principles, the Commonwealth's proposed remedy calls for no bank or river excavation and stabilization because the cancer risk limit and non-cancer risk limit is already met in these areas and to require further remediation will cause irreversible damage to the meandering character of the Housatonic River ecosystem and to the associated state-listed species and their habitats. Our comment letter explained that within the floodplain, the Commonwealth has identified "core habitat areas" of special ecological character and value that are not necessary to excavate to protect human health. Instead, the risk to human health in these areas can be addressed through the implementation of institutional controls ("ICs"). The Commonwealth stated that it would submit a map of these floodplain remediation and core habitat areas as an addendum to its comment letter. Below is an explanation of this map entitled *"Housatonic Floodplain Remediation & Core Habitat Areas."*

As summarized above, the remediation goal underlying the map is predicated on meeting human health standards that are appropriate for the floodplain, the great majority of which is permanently protected by the Commonwealth as open space. Consistent with this approach, the Commonwealth analyzed the habitat impacts associated with floodplain remediation, and in particular the feasibility of conducting additional remediation without causing undo harm to state-listed species and other important habitat features such as vernal pools.

To complete this analysis for this map, we identified core habitat areas based on three criteria:

1. Core habitat areas for nine state-listed species occupying the floodplain. These species were selected based upon their reliance on floodplain habitat, sensitivity to habitat disturbance and the degree of difficulty associated with restoring their habitat after remediation.

2. Vernal pools, and the 100-foot supporting terrestrial habitat zone surrounding each pool.

3. Areas with a high richness of co-occurring state-listed species (i.e., areas providing habitat for nine or more listed species).

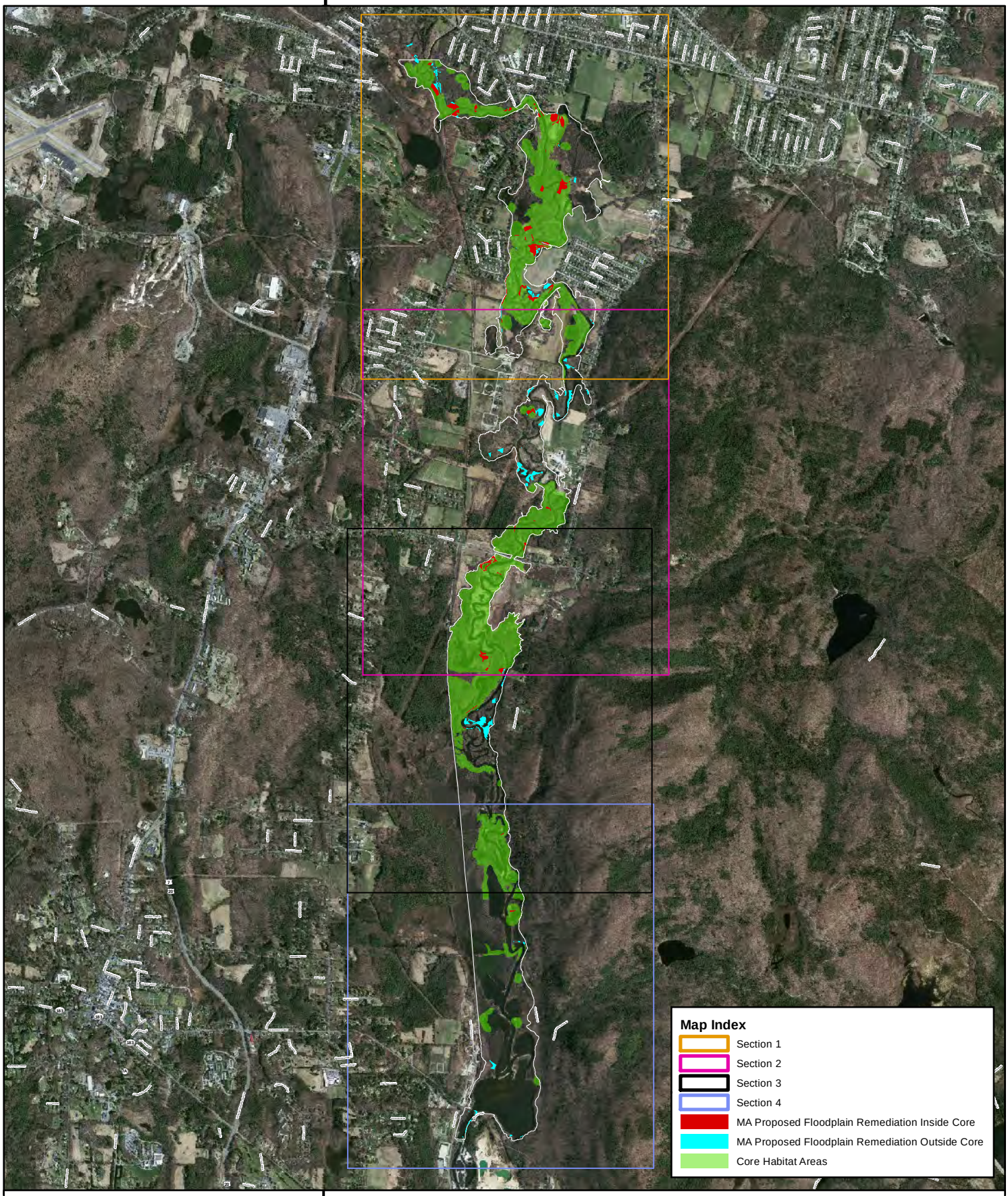
We then overlaid remediation areas identified to achieve human health risk standards over these core habitat areas. Areas designated for remediation that fell outside the core habitat

areas were retained and yielded 18.5 acres. The Commonwealth proposes all of these areas for remediation, with the exception of very small polygons that consist of several very small, remote areas where the disturbance associated with accessing these areas does not justify remediation.

Within the core habitat areas, we identified 10.1 acres that must be remediated to meet human health risk standards. The commonwealth proposes that a 2.2 acre area of floodplain forest providing very important habitat for a sensitive state-listed species (Ostrich Fern Borer) within these 10.1 acres not be remediated. Because remediating this forest patch would eliminate virtually all of the known habitat for the local subpopulation of this species, and because this forest habitat cannot be easily restored in the short or medium term, the Commonwealth recommends managing human exposure to this area through ICs. Because the area is relatively small, wet and difficult to access, institutional controls such as signage are likely to be sufficient. Through these first two steps we identified 26.2 acres for remediation and an additional 2.2 acres to be addressed through ICs appropriate for that site.

The third step in our analysis involved identifying additional areas within core habitat that could be remediated while minimizing impacts to key habitat features. In general, this involved proposing for remediation those areas that were in close proximity to areas designated for remediation under the first two steps, and thereby minimizing the need to construct roads and staging areas, and consolidating the areas of disturbance to minimize habitat fragmentation. Potential remediation areas in close proximity to roads and development were also selected. This resulted in the identification of an additional 7.2 acres of potential floodplain remediation, resulting in a total proposed floodplain remediation area of 33.4 acres. Finally, as road and staging area layouts are refined during the remedy design phase, it may be appropriate to consider managing some of these 33.4 acres through ICs—especially relatively small remediation areas, in remote, difficult to access areas. In general, consistent with our January 31, 2011 comment letter, even in these 33.4 acres, we view excavation as a last resort, to be performed if institutional controls and site-wide averaging are not sufficient.

Housatonic Floodplain Remediation & Core Habitat Areas



Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries & Wildlife

Index Map for Study Area Maps

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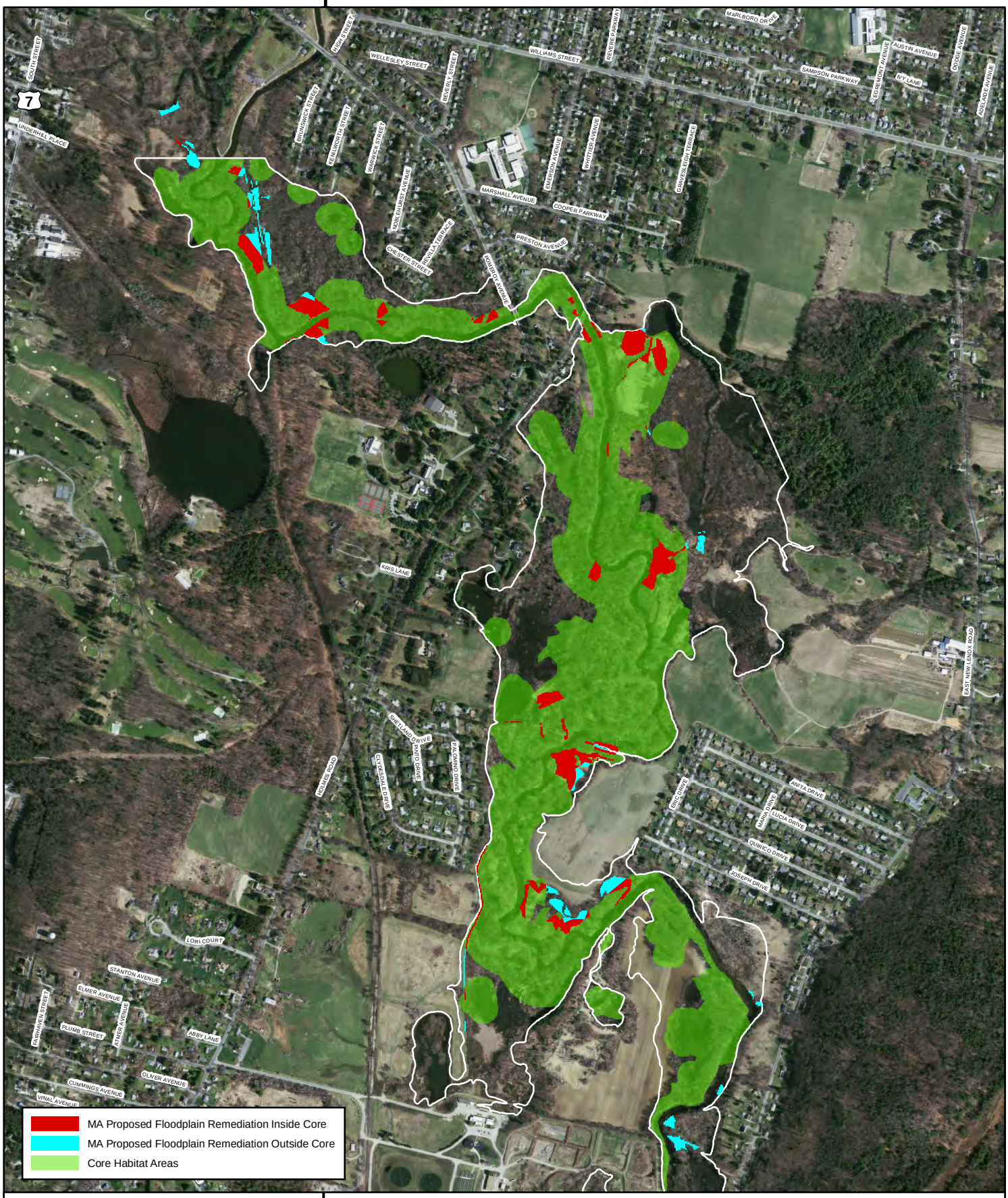
Feb 17, 2011

Housatonic Floodplain Remediation & Core Habitat Areas



Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries & Wildlife

Study Area - Section 1 (of 4)

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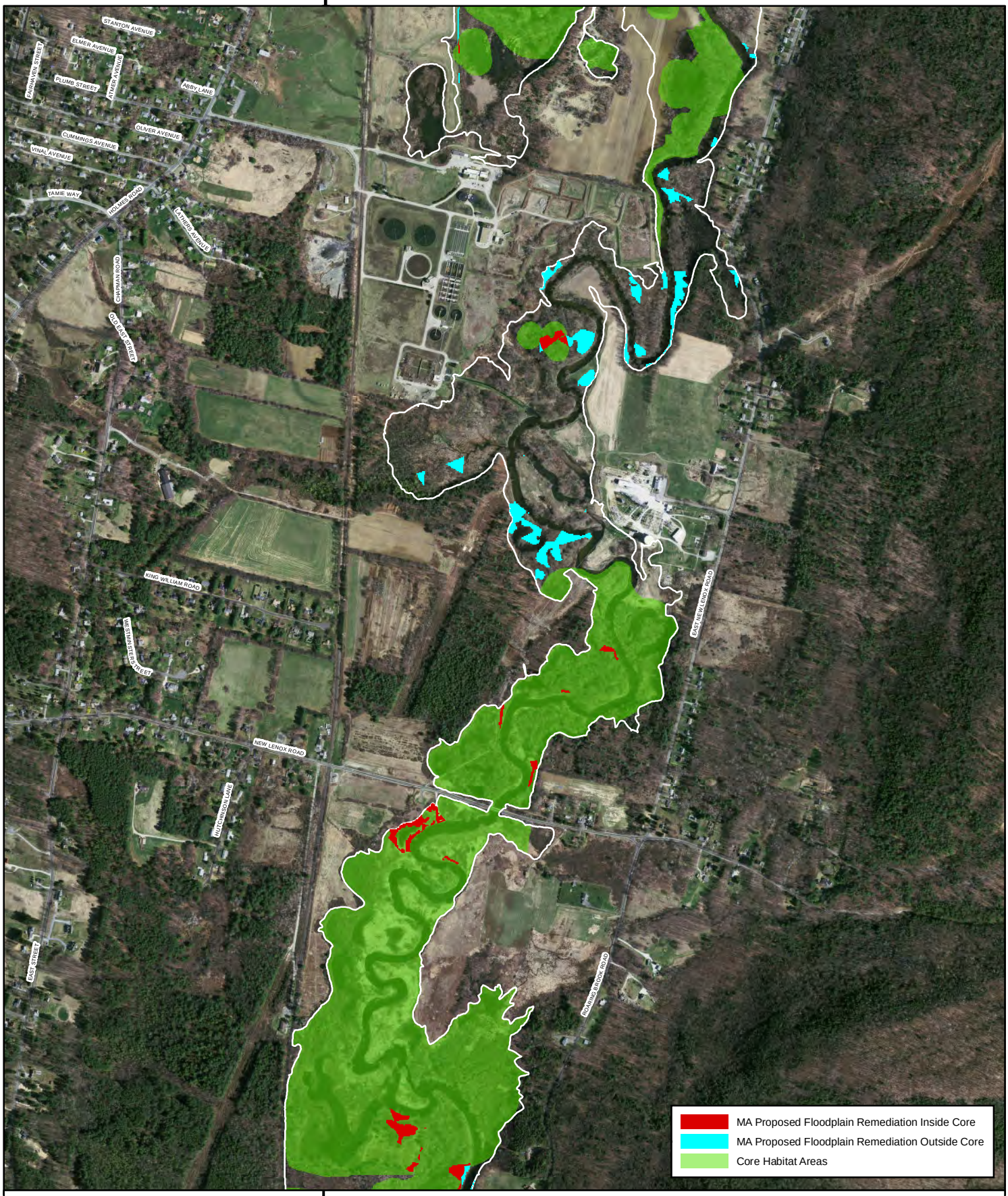
Feb 17, 2011

Housatonic Floodplain Remediation & Core Habitat Areas



Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries & Wildlife

Study Area - Section 2 (of 4)

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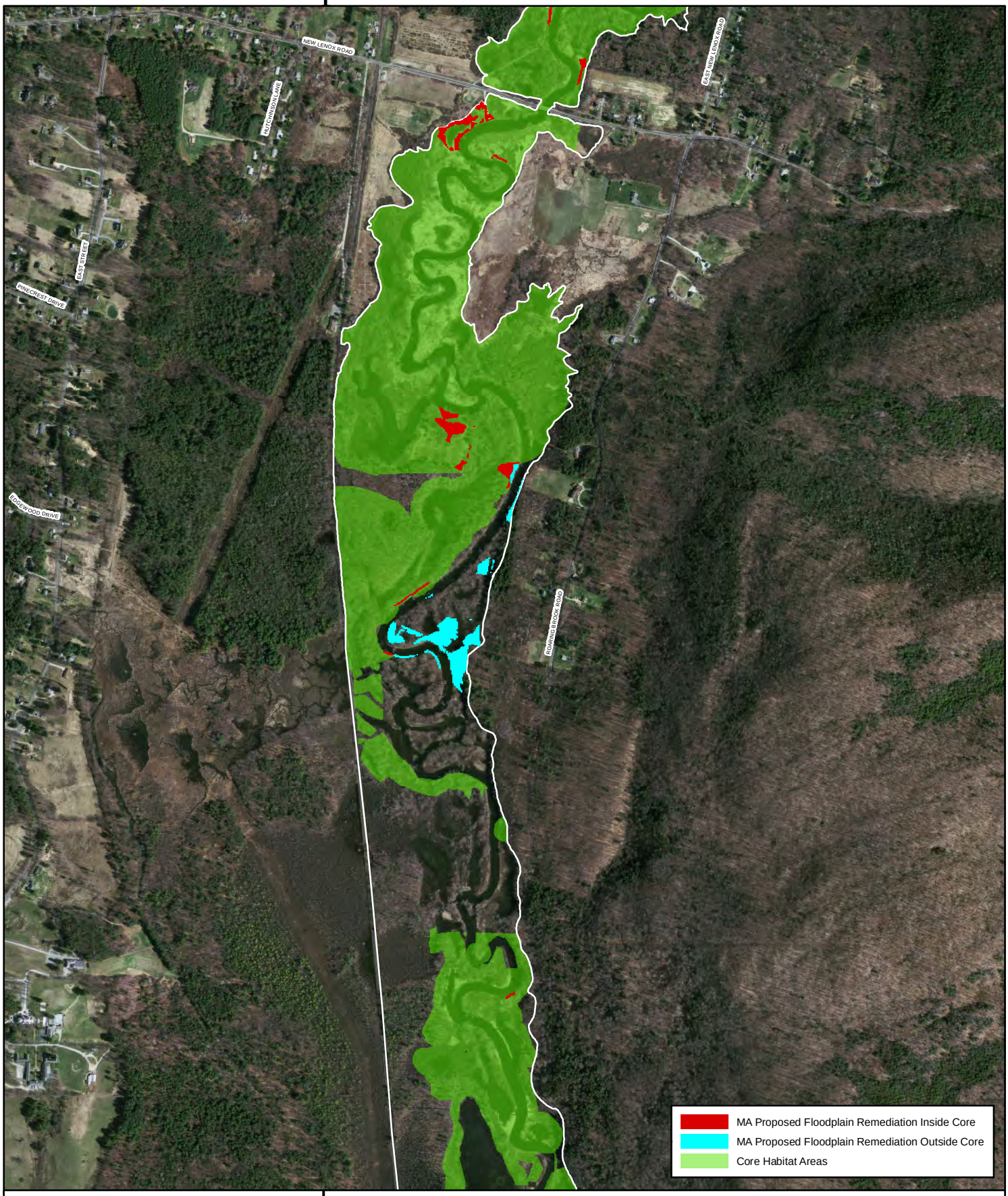
Feb 17, 2011

Housatonic Floodplain Remediation & Core Habitat Areas



Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries & Wildlife

Study Area - Section 3 (of 4)

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Feb 17, 2011

Housatonic Floodplain Remediation & Core Habitat Areas

Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries & Wildlife

Study Area - Section 4 (of 4)

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Feb 17, 2011

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

January 28, 2011

Ms. Susan Svirsky
Rest of River Project Manager
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

RECEIVED
FEB 02 2011
By

Dear Ms. Svirsky:

The Connecticut Department of Environmental Protection (CTDEP) appreciates the opportunity to provide comments on the Revised Corrective Measures Study Report (CMS) for the Rest of River Portion of the Housatonic River study area. This report, prepared by the General Electric Company (GE) and submitted to the United States Environmental Protection Agency (EPA) in October 2010 details the remediation recommendations of GE submitted in response to requirements of the Consent Decree. The Housatonic River is an important environmental resource for the citizens and ecology of the State of Connecticut and is currently listed on Connecticut's impaired waters list due to impairments resulting from the presence of polychlorinated biphenyls (PCBs) in the watershed. Any successful plan for the Housatonic River must include actions that will resolve this impairment and restore the river to full attainment of water quality standards and designated uses as it pertains to the presence of PCBs. We are critically interested in the selection of remedial actions for the river as we are relying on these actions to provide for the eventual restoration of the river and attainment of water quality standards, criteria and designated uses for the Housatonic River in Connecticut. A comprehensive program to eliminate PCB source areas and prevent downstream migration of PCBs is key to the resolution of the water quality impairments within the Connecticut portion of the river. Any actions clearly must be done in a manner that is sensitive to the ecological habitats and communities in and associated with the river.

The recommendations offered within the CMS are predicated upon the idea that remediation of PCBs within the Housatonic River represents a significant threat to the ecosystem and would cause irreparable environmental damage, far out weighing any benefit from reducing the burden of PCBs on the environment and associated biota. We strongly disagree with this assertion and note that no credible documentation is provided within the CMS to substantiate this claim. While there is no doubt that remedial activities are disruptive in the short term, successful environmental restoration can be conducted following remedial activities to obtain the best environmental outcome, removal of a toxic and persistent chemical from the environment and maintenance and protection of important ecological communities and attributes.

For Connecticut, the most efficacious remedial alternative will be one that eliminates or reduces to the greatest degree possible the level of contamination within the Massachusetts portion of the river. PCB contamination exists within our state because of the downstream transport from the GE facility in Pittsfield MA and the affected portions of the river within Massachusetts. Without substantial remedial actions to address these sources, it will not be possible to reduce the risks within Connecticut to an

acceptable level and restore the river. The remedial plan recommended by GE is referenced at Sediment Option 10 and Flood Plain Option 9. This option will not provide sufficient control of PCB sources within Massachusetts to prevent unacceptable downstream transport of PCBs into Connecticut and will not reliably allow for elimination of ecological risks and elimination of the fish consumption advisory within Connecticut. In particular, this proposal does not provide a comprehensive control on contaminated sediments within Massachusetts, areas which retain PCBs and which may release them during flood events or failure of dam structures. Additional areas of remediation, both within Woods Pond and within other impoundments such as Rising Pond, are necessary to assure that PCBs are removed from the environment or isolated in a manner so as not to contribute to risks within Connecticut.

The remedial plan as proposed does not address Connecticut-specific issues such as sediments behind dams within Connecticut and the potential impact of PCBs on permitted activities within the Housatonic River. GE is responsible for pollution at and emanating from their facility, including at the various locations within the environment to where the contamination has migrated, such as dams or other structures within the watershed. The approved remedial plan must contain a detailed, pre-defined protocol to address PCBs associated with dams, other structures or other permitted activities within the watershed.

Thank you again for the opportunity to provide comments. CTDEP remains committed to working with EPA, the Commonwealth of Massachusetts, trustee agencies and GE to achieve the clean up and restoration of the Housatonic River watershed.

Sincerely,

Betsey Wingfield
Bureau Chief
Bureau of Water Protection and Land Reuse

UNITED STATES GOVERNMENT

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Admin.
National Ocean Service
Office of Response and Restoration
c/o EPA Office of Site Remediation and Restoration (HIO)
5 Post Office Square, OSRR-07-1
Boston, MA 02109
20 December 2010

Ms. Susan Svirsky
U.S. EPA Office of Site Remediation and Rest.
5 Post Office Square
Boston, MA 02109

Dear Susan:

Thank-you for arranging receipt of the Revised Corrective Measures Study Report, Housatonic River – Rest of River and an addendum: Evaluation of Remedial Alternatives Using Sound Ecological Assumptions. Both are dated October 2010; the former is authored by Arcadis, Anchor QEA, and AECOM for the General Electric Company but it is unclear who authored the latter. NOAA's interest in this site since settlement of the Natural Resources damages is modest, nevertheless a few comments are provided below mostly general in nature with an attempt to find a compromise between EPA and GE.

Concerning the Addendum, NOAA is not sure if the title of the report is meant to be informative, persuasive, or sarcastic. Given that the second paragraph of the Introduction states that "GE has a fundamental disagreement with EPA regarding whether exposure to PCBs at environmental levels causes adverse effects on human health and the environment" it is immediate to the reader that GE subscribes to a different set of peer-reviewed literature and furthermore has ignored past remedial measures in the US. Nevertheless, I did find their discussion concerning the benthos and fish IMPGs technically fair but find that the GE assumptions move to far afield from the precautionary principal. For example, GE states that their higher IMPGs for the benthic invertebrates are more scientifically sound that those of EPA. But it is EPA's calculation of 3-10 mg/kg that is better supported by past work in this field. Nevertheless, rather than pounding their chest that their calculations are better, an attempt to compromise with EPA likely would result in a sediment concentration amenable to both parties (7-10 mg/kg that overlaps both GE and EPA's concentration range?). Similarly, concerning Fish Protection on Page 5, both EPA and GE make use of assumptions due to the uncertainty inherent in this two phase study. I prefer the more conservative approach advanced by EPA but some compromise – although closer to EPA's fish tissue concentration – by both parties could resolve this disagreement. For example lowering the number of meals from 55 to 14 for human health impacts from fish tissue exposure.

Concerning the Revised Corrective Measures Study, again given NOAA's very indirect natural resource trustee concerns at this site, I thought it best not to debate Section 2 (Description of Evaluation Criteria) or address the issues concerning the model (Section 3.2) or remediation impacts and the complexity of restoration (Section 5). The regulators and other stakeholders with more direct and local interests certainly will cover this. Rather I thought it best to provide an opinion that Sediment/Floodplain Alternative #3 is the best alternative for reaching

consensus. This remedy provides the most river and floodplain habitat improvement for the least amount of cost given the relatively limited dredging and capping. Of note, this is the alternative highlighted by GE during their initial CMS presentation in Pittsfield in March 2008. Although not a complete cleanup of the "Rest or River" this remedy goes a long way in improving the general health of the river ecosystem. That because most of the PCB mass is removed or covered. Most importantly, this remedy reaches well into the 90th percentile for decreasing PCB loading, considerably higher than its closest analogue SED 10/FP 3 yet much less expensive than any of the more comprehensive remedial measures. As stated in the Executive Summary on Page 21:

The model results indicate that, under SED 10, the mass of PCBs passing both Woods Pond and Rising Pond Dams would decrease by 62% relative to current levels, while the PCB mass transported to the Reach 5/6 floodplain would decrease by 68%. Under SED 3, the modeled total decrease in these three PCB loads (i.e., mass transport) would be 94%, 87%, and 97%, respectively. For alternatives greater than SED 3, the modeled reductions in all three loads level off, and are generally greater than 95%, achieving little additional reduction. . .

Similarly, remedy SED 3/FP 3 potentially reduce PCB concentrations in the fish fillets by as high as 100%, considerably higher than the 50-80% reduction when using SED 10/FP 9.

GE spends much time promoting SED 10/FP 9 explaining that this option does not result in the substantial and widespread long-term, and in some cases permanent, adverse impacts on the ecosystem of the river that they claim will occur using any of the remedies encompassing SED 3/FP 3 thorough SED 9/ FP 8. However, when comparing SED 3/FP 3 with SED 10/FP 9, Table ES-1 through ES-5 show that the former removes less cubic yardage despite complete cleanup of highly contaminated zone 5A and the bank soil. Granted thin layer capping of Woods Pond and part of Zone 5C only enhances the SED 3/FP 3 remedy but the capping is likely as effective as the partial removal of the Woods Pond sediment used in SED 10, and thereby eliminates the dredging (of Wood Pond) that GE has frequently railed against.

Under the SED 3/FP 3 cleanup plan, it will take ten years for completion, not very distant from the 5 year estimate for SED 10/ FP 9. Other more invasive remedies take more time for construction complete - up to 51 years for SED-8. Nevertheless, it will take 20 years for the CT fish to reach a concentration that results in unrestricted fishing. Under all scenarios, the MA fish never do in the 50 year time period modeled.

Given the text above, I trust that EPA and GE can reach a consensus concerning the IMPGs and the selected remedy. Compromise must be made by both parties and I believe that SED 3/FP 3 may be the remedy that allows both sides to meet the demands of environmental cleanup without unmanageable habitat destruction, both while keeping costs reasonable. Please let me know if you have any questions.

Sincerely,

Kenneth Finkelstein, Ph.D

CC: Bob Cianciarulo (EPA)
Ken Munney (USF&WS)

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December 20, 2010

Ms. Susan Svirsky
EPA Rest of River Project Manager
Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Dear Ms. Svirsky:

Thank you for the opportunity to review the Housatonic River – Rest of River (ROR) Revised Corrective Measures Study (CMS), General Electric (GE), Pittsfield, Massachusetts, dated October 2010. We are providing comments during the CMS public comment period under our role as a Natural Resource Trustee.

The revised CMS essentially re-synthesizes the March 2008 CMS and includes new cleanup scenarios and substantial additional analyses in support of Environmental Protection Agency (EPA) regulatory requests and GE's position. Our comments on the original CMS (May 2008), and on GE's response to EPA's interim comments on the CMS (May 2009) are still pertinent, relative to our position on many facets of the proposed remediation of the ROR. We realize that our original comments on preferred removal options are not wholly contained in any one sediment/floodplain soil management alternative currently being proposed. In order to facilitate decision-making within the framework of the revised CMS, the current sediment option that comes closest to our preferred management alternative is SED 9. Furthermore, floodplain option FP8 is protective of human health and amphibians to acceptable levels; however, we believe that a soil remediation threshold of tPCBs >50 ppm is not protective enough for all biota. The action level proposed for FP6, removal of soils with tPCBs >25 ppm, would be more conservatively protective, where appropriate and feasible.

Sediment removal guidelines are generally defined for SED 9, relative to depth of removal, capping material and final elevations, in specific sections of the river and backwaters. It is envisioned that implementation of sediment removal will be very complicated but will fall within parameters that are relatively narrowly defined. However, implementation of floodplain soil removal will require more complicated analysis, relative to weighing remedial impacts on the various contaminated habitat types that exist in the extensive floodplain. In light of our position regarding floodplain soil remedial levels, strict adherence to a set removal

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concentration in all habitat types is not in the best interest of the ROR ecosystem. Early successional habitat types are probably the most replaceable and viable for aggressive remediation to the lowest conservatively protective clean-up standards. In contrast, floodplain forests are less replaceable in reasonable time frames, and remediation in this habitat type should be carefully evaluated for risk reduction benefit versus loss of long-term habitat value. Unique habitat types or sensitive area complexes supporting rare or state-threatened species should be avoided to the greatest extent possible. GE has provided substantial information on potential habitat and species impacts associated with remedial actions, which is valuable.

As stated in previous comments, we acknowledge that significant areas of habitat will be lost in the near-term so that long-term health of the ecosystem can be re-established. We understand that substantial species displacement will occur and that productivity will be severely curtailed for many species for extended periods of time over stretches of the river and floodplain. These consequences are very unfortunate but cannot be wholly avoided if deleterious and widespread PCB contamination is to be removed from the environment. We realize that it will be a monumentally challenging task to minimize unnecessary impacts to habitats and species and comprehensively remediate complex aquatic, terrestrial and wetland habitat. We do not believe that remedial actions necessarily have to result in permanent and irreparable harm to habitats or species if conducted judiciously and in unison with the wealth of remedial and restoration experts available in the public and private sectors. Large-scale remediation and long-term restoration efforts have the potential to significantly reduce widespread PCB contamination and insure the return of habitat productivity over time.

Trade-offs will have to occur throughout the floodplain in order to effectively reduce elevated contaminant risk to biota but also to insure the potential for successful long-term restoration. Habitat type, species abundance, and species uniqueness will need to be evaluated to determine if complete or partial habitat removal will result in significant risk reduction with reasonable potential for comparable habitat and species restoration. Adjacent habitat quality should also be evaluated for its ability to act as a buffer or reserve for potentially lost habitat in the interim between remediation and full restoration. For instance, partial removal of contiguous stands of floodplain forest may be acceptable, dependent on risk reduction magnitude, and result in limited long-term impacts due to niche overlap and buffer capacity of adjacent forest stands to support similar or displaced biota. Short-term loss of early successional habitat during remediation may be buffered by managing adjacent or nearby uncontaminated habitat for similar species. Provision of unimpacted alternative habitat was successfully used during the aftermath of Hurricanes Katrina/Rita and the recent Deepwater Horizon oil spill to attract displaced biota. Due to the expected extended duration of the cleanup, it is probable that upstream remediated and restored habitat will begin to provide early successional functions and values to the ecosystem while downstream early successional habitat is undergoing remediation. This may also be pertinent for emergent and scrub-shrub habitat areas that characteristically re-establish themselves in short-to-moderate time frames. Functions and values of restored habitats, especially their ability to support species assemblages, should be monitored in conjunction with vegetative survival and performance. Abiotic ecosystem services, such as woody debris, sediment retention, and flow reduction, should also be creatively restored to the maximum extent practicable in the shortest time frame post-removal.

Select removal of contaminated floodplain soils with limited habitat removal for sensitive habitat areas should be implemented where possible, either with small-scale excavators or hydraulic vacuum techniques. Additionally, Region 1 EPA is considering a thin layer cap (TLC) approach at Centredale Manor NPL for remediation of dioxin-contaminated soils in floodplain habitat. We are skeptical of applying a TLC approach in floodplains without removal due to TLC's characteristically limited cap thickness and reduced ability to offer conservative protection. However, we realize that compromises on remedial stringency may need to occur in certain areas in order to strike a balance with preservation of highly valued habitat.

In general, we do not support the use of a TLC for use in floodplains, shallow backwater or riverine settings without prior removal. These areas are subject to scour, high biotic use by finfish, waterfowl and mammals or establishment of submerged aquatic or emergent vegetation that have the capacity to undermine the protectiveness of a thin-layer cap. Additionally, TLC should not be used after removal if residual contamination exceeds interim media protection goals (IMPGs).

Use of full-scale capping post-removal or in deep water areas without removal is recommended, as described in several of the sediment management alternatives. However, we consider the currently proposed capping thickness of one foot, as described, to be insufficient to conservatively protect biota over the long-term. Consistent cap thicknesses of 1.5-2 feet would be more protective and supportable and have been instituted in many other sediment remediation sites across the country.

We still support the use of low permeability material, such as bentonite, in conjunction with standard capping practices, for use in all areas where residual PCB concentrations above surficial sediment standards will be left in place at depth. The low permeability layer will prevent or decrease the upward migration potential of PCB-laden pore water, act as a more restrictive barrier for direct sediment exposure to benthic invertebrates and other biota, and be a more protective barrier to ice and storm scour.

We support the inclusion of a habitat/bioturbation layer for all capping scenarios. Capping material should closely approximate native sediments to the greatest extent possible. Organic carbon augmentation of capping material in the habitat layer may be necessary to achieve total organic carbon percentages sufficient to facilitate benthic community recolonization. Additionally, we realize the need for armouring of river bottoms or shorelines in shallow or high scour areas but recommend no or minimal usage of armouring in areas presently devoid of hard rock bottoms. It would be more beneficial to use backfill with characteristics similar to existing sediments in thicknesses that can act as conservative buffers to contamination left in place. Fate and transport modeling should elucidate areas where this is most applicable and appropriate. This would allow for more natural sediment dynamics over the long-term.

Use of wet excavation techniques for sediment removal in Reaches 5A and 5B may allow for substantial cost and time savings, as described. Hydraulic dredging with cutter heads may offer the best alternative to sediment removal with the lowest suspended solids generation. Suspended

sediment loads should be monitored during removal, if wet excavation is chosen. Total suspended solid (TSS) and associated PCB loads should be minimized to the greatest extent possible to avoid transfer of significant PCB-contaminated sediments downstream, especially beyond Woods Pond Dam. Monitoring and evaluation of TSS and PCB transfer during removal may necessitate aggressive re-design of removal operations, based on unacceptably elevated loads, and include more stringent sediment migration controls or reverting to dry removal techniques, where feasible. This type of adaptive management strategy will be integral to sediment removal efficiency and success as the project evolves, similar to the challenges faced and overcome in the 1½-mile removal operation.

We support the proposed use of simultaneous removal activities in various reaches of the ROR to facilitate an expedited remedial timeline. However, downstream transport of contaminated sediment loads has the potential to undermine remedial progress in areas prone to deposition. For these downstream areas, pre-determined action levels for potential re-dredging should be set, in case significant PCB contamination is re-deposited prior to capping.

It would be helpful to provide PCB concentration data for Reaches, spatial bins and/or habitat types in the remedial design phase so that a more-informed evaluation of remedial option protectiveness and habitat impacts can be conducted for riverine, riverbank, and floodplain areas.

Riverbank remediation and restoration is a key component to accomplishing the goals of PCB reduction and re-establishing viable riverine habitat for the greatest number of species. PCB contamination in riverbanks, and floodplain soils immediately adjacent to them, need to be remediated to the greatest extent possible, based on area averaging calculations. These areas are the most prone to erosion during normal flows and surface water runoff, flood events and future lateral channel migration. Comprehensive remediation of these areas will help insure long-term protection of remedial accomplishments in riverine and backwater sediments. However, in areas of low contamination and reduced residual risk, it may be practical to avoid riverbank removal or preserve significant vegetative or structural components with minimal alterations. Hard-banking of the ROR post-removal, similar to the 1½-mile river stretch, will undermine the restoration potential of the river ecosystem and should be avoided to the greatest extent possible. Armouring or gabion baskets may be acceptable in certain areas that warrant increased stability requirements beyond the capacity of bioengineering techniques. In general, more naturalized rock features or revetments than were used in the 1½-mile remediation should be designed and installed for limited areas, such as high volume drainage features, steep banks or high shear stress areas. Naturalized river banks should be established in the vast majority of the ROR using established and innovative bioengineering techniques. GE's assessment of potential riverbank restoration options is insightful and noteworthy. We envision that EPA's river restoration consultants can work with GE to facilitate comprehensive naturalized riverbank implementation that will support robust restoration of biotic and abiotic functions and values throughout the ROR.

We disagree with the minimum viable population (MVP) determinations made for short-tailed shrew (*Blarina brevicauda*) with regard to attaining protective levels of remediation in terrestrial areas. Currently, GE is proposing an area averaging unit of 35.7 hectares (ha) based on a density of 14 shrews/ha with no overlapping home ranges. As stated in previous comments, an MVP of 500, based on GE's literature analysis for large mammals and birds, is inappropriate and probably overly- conservative for small mammals with short generational turnover and multiple breeding events per year. It is unlikely that species with high reproductive output and small home ranges require the same number of individuals for long-term population stability as wide-ranging, low-reproductive individuals. Furthermore, home ranges have to overlap to some degree annually or no reproduction would occur. Additionally, much higher short-tailed shrew densities were found in the Housatonic floodplain and the literature than are being used in area averaging estimates. Literature density estimates are as high as 48 individuals/acre (119/ha) in good habitat, and a GE-funded site-specific study documented considerably higher densities than 14 shrews/ha as well. These factors would suggest that area averaging units should be based on a much lower MVP and a much higher population density, resulting in appreciably reduced sizes for area averaging units and ensuring more conservatively protective remedial soil concentrations for the small mammal community.

Area averaging units proposed for insectivorous birds and piscivorous mammals may lead to less than conservatively protective scenarios, based on breeding female home ranges and young-of-the-year exposures. However, we realize that EPA has mandated lower area averaging units for both exposure groups than were originally proposed, based on Ecological Risk Assessment findings. We envision that remedial actions may attain slightly lower final sediment/soil concentrations than currently proposed which may lead to more protective exposure scenarios over the long-term.

Downstream biota should be monitored during upstream remedial actions in order to evaluate potential PCB tissue concentration increases or decreases related to PCB source removal or PCB-associated suspended sediment transport, respectively.

Aggressive invasive species management in the remediated/restored areas is imperative and will be a serious challenge to the success of the project. Aquatic, semi-aquatic and terrestrial invasive species will opportunistically invade remediated open habitat areas. Invasive species management in the first two remediated miles of the river has been very successful due to a stringent monitoring plan, early detection and prompt aggressive management action. We advocate similar strategies for the ROR but realize that the challenge will be much greater across a varied floodplain, extensive acreages, and in significantly different conditions than the remediated/restored upstream section of the river. However, invasive species control operations in ROR will need to be instituted for extended periods of time beyond traditional three-to-five-year time frames, in order to protect the remedy and allow restored habitats to evolve and mature across a broad landscape. We recommend that invasive species in the ROR should be pre-treated in advance of remedial actions in removal, staging and access road areas, to minimize their potential for proliferation during and after remedial activities. Active invasive species control operations should also be conducted during the protracted timeline of removal operations.

We previously advocated for the use of thermal desorption of low moisture PCB-contaminated soils or sediments, to the greatest extent possible. We still feel it is a viable option for the ROR and would permanently reduce the overall volume of PCB contamination, alleviate a proportion of the disposal burden, and allow for productive re-use of native soils. Treated soil re-use should only occur at depth, below biotic activity zones, due to its lack of organic matter and altered character.

We previously advocated for out-of-area disposal of PCB-contaminated soils/sediments instead of further impacting upland/wetland habitats within the Housatonic River valley. We continue to believe that this is in the best interests of the watershed. Contaminated soil/sediment transport out-of-area via the railroad corridor, which has been deemed a viable option, would be parallel to disposal efforts being conducted for the Hudson River PCB removal project.

As previously discussed, wetland mitigation should occur for all wetland areas impacted by staging and access roads if those areas cannot be returned to pre-remedial conditions or if impacts occur over extended time frames, including time to attain pre-remedial conditions. Mitigation should also occur for unavoidable loss of specific habitat types which should be quantified, pooled, and compensated for in adjacent areas, if possible, or within the same reach of the river. Additional habitat-specific wetlands could be created within the floodplain in removal areas of low habitat value. This could satisfy wetland mitigation requirements, lessen the amount of backfilling required, and result in time and cost savings. Mitigation should also be required if significant flood storage capacity is lost as a result of capping activities, especially if removal of sediments to accommodate cap thickness is not conducted.

We recommend the use of in-situ treatment technologies involving application or injection of activated carbon (AC) within some area of the ROR, in conjunction with traditional removal and capping technology. The significant area of contamination in the ROR affords numerous options to conduct a limited pilot to moderate-scale application of the effectiveness of AC in limiting PCB uptake in the Housatonic, which may have future applications. We suggest that a riverine backwater would be a good candidate area for testing AC performance.

Recommendations provided herein may evolve during subsequent discussions with regulatory and natural resource agencies. These general comments are pertinent to many major issues of the revised CMS, but do not fully capture all of our technical concerns, as outlined in previous comments.

We anticipate continued discussions on the revised CMS and look forward to a remedial decision and proposed plan for the remediation and restoration of the river.

Please contact Mr. Kenneth Munney of my staff at 603-223-2541, extension 19, or Kenneth_Munney@fws.gov if you have questions or concerns about these comments.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office