EPA-GE Housatonic Remediation Citizen Coordinating Council Public Meeting

March 7, 2007
Kent Town Hall, Kent CT

DRAFT Meeting Highlights

Participants: Forty-nine people attended the meeting. A list of participants is attached.

Introduction: Suzanne Orenstein, Facilitator, and Dean Tagliaferro, EPA Project Manager, opened the meeting with a round of introductions and a review of the agenda. They noted that this meeting would focus on the Rest of River Corrective Measures Study (CMS) proposal recently submitted to EPA by GE.

Presentation of the CMS Proposal by GE

Andy Silfer, GE Project Manager presented an overview of the Rest of River remediation process, and Stuart Messur of Arcadis-BBL and Jim Rhea of QEA, consultants to GE, presented an overview of the proposed corrective measures study. The slides used in their presentations are posted on the EPA web site at www.epa.gov/ne/ge by clicking on the "Meetings & Events" button and scrolling down to the March 7, 2007 CT CCC meeting.

Mr. Silfer reviewed the history of the GE cleanup, beginning with the signing of the Consent Decree in 2000, which established a process for development of the remediation plan for the Rest of the River.[1] The process established in the Consent Decree has been proceeding for several years. The process included an ecological risk assessment, a human health risk assessment, and the development of a mathematical model of the river than can be used to evaluate how various remediation options would address the human health and ecological interim media protection goals approved by EPA. These elements of the process are completed. The next phase of the process was GE's submittal of the Corrective Measures Study Proposal (the subject of this evening's meeting), and a Corrective Measures Study that outlines the evaluation of multiple alternatives and GE's proposed remedy for the Rest of River. Following the approval of the CMS, EPA will propose a cleanup decision for public comment after considering GE's proposed remedy.

Mr. Silfer then reviewed the characteristics of the river from Pittsfield to Rising Pond dam just north of Great Barrington, MA, and from Rising Pond dam into CT. He noted that monitoring efforts south of Rising Pond dam indicated average concentrations of PCBs were lower than the majority of the human health and ecological cleanup goals.

Mr. Silfer further reviewed the biennial biota monitoring program that GE has conducted in CT in coordination with CT DEP. Data has been collected since the early 1990's on small mouth bass and brown trout, with additional species, including pike, sampled at the request of CT DEP and CT DPH. The most recent sampling in this program was done in 2006; those samples are still being analyzed. The laboratory that analyzes the data, the Philadelphia Academy of Sciences, was selected by CT DEP, and has been the analytical lab since the beginning of the program.

[1] The Rest of River area includes the Housatonic River below the confluence of the East and West Branches. The first two miles immediately upstream on the East Branch have been remediated.

The analysis of the data on fish from the river shows a consistent downward trend in PCB levels since the beginning of the sampling program, and PCB levels tapering off since the mid-1990's.

Mr. Messur provided an overview of the specific elements of the corrective measures study proposal. He noted that the CMS proposal is the workplan for the evaluation of various alternatives for in-river sediment, bank sediment, floodplain soil, and processing options for handling removed sediments and floodplain soil. The Proposal screens technologies to determine those that will be considered in detail in the Corrective Measures Study.

The in-place sediment options retained in the Proposal for further consideration include no action (as required by the EPA Superfund program),institutional and engineering controls, monitored natural recovery (MNR), removal and replacement of sediment, in-situ containment with engineered barriers, capping, and rechannelization. Options for floodplain soils that will be further evaluated include no action, engineering and institutional controls, monitored natural recovery, removal and replacement of sediments and in-situ containment with soil covers and engineered barriers. The options that will be evaluated for managing removed sediment/soil include dewatering, treatment including ex-situ stabilization/solidification, chemical extraction, and thermal desorption, and disposal in confined disposal facility in water, an upland disposal facility, and off-site permitted landfills.

These methods were arrayed in eight sediment alternative remediation scenarios and seven floodplain soil alternative scenarios that include combinations of remediation options, with variations from a no action alternative to extensive removal of sediment and flood plain soil above Rising Pond.

These scenarios will be evaluated on the following *General Standards*:

1. Overall protection of human health and the environment
2. Control of sources of releases
3. Compliance with substantive federal and state regulatory requirements

The remedy selection process will also consider six *Selection Decision Factors*:

1. Long-term reliability and effectiveness
2. Attainment of the IMPGs
3. Reduction of toxicity, mobility or volume
4. Short-term effectiveness
5. Implementability
6. Cost

The process for evaluating the alternatives includes the use of the model to predict future sediment and biota PCB concentrations for each sediment remedial alternative, detailed evaluations of sediment/riverbank soil, floodplain and sediment/soil management alternatives, comparative evaluations of alternatives to each other, and development of recommended remedial alternatives for sediment and riverbank soil, floodplain soil, and sediment and soil management. The CMS report is due 180 days after EPA approves the CMS proposal (or later if EPA agrees to an extension).

Susan Svirsky, EPA Project Manager for the Rest of River, made several comments about the CMS process. She noted that EPA is not required by the Consent Decree, CERCLA, or the Resource Conservation and Recovery Act (RCRA), to have a public comment process on the

IMPGs or the CMS report. However, the Region offered the opportunity for an informal public imput process for the CMS Proposal, as it did for the IMPG proposal, and will do so as well for the CMS report. Written comments submitted during this informal process will be placed in the administrative record. In addition to these three informal public comment efforts, she is personally willing to meet with any individual to walk through the document and explain it and answer any questions.

Questions and Comments

Question: If in five or ten years we learn that even lower levels of PCBs are necessary to be protective, what will be done with this remediation process at that point?
Answer: Under Superfund, there is a five-year review cycle, and each five years the risks are evaluated against potentially new risk information. It is possible that something like that will be considered for this site.

Question: Have you recently tested the floodplains in New Milford or behind the dams at Lake Zoar and Lilinonah? If fish from those lakes have 1 ppm PCBs, where are they coming from?
Answer: Of forty samples collected in 2001, only three or four had detectable levels of PCBs, all at low concentrations. In the floodplain, there were recent data collected between Rising Pond and the CT section of the river, a distance of 24 miles. Of the 337 samples collected in the floodplain, 151 were nondetect. The average concentration was 0.43 ppm, which is lower than any health-based risk level. .

Question: Were these concentrations in the floodplain found before you did the work in Pittsfield or after?
Answer: The data was collected while the clean-up work in Pittsfield was going on. We also sampled reference areas, including fish at Threemile Pond in Sheffield, and there was not much difference between the reference areas and the concentrations in CT. There are other contributing factors beyond the loadings from the GE facility, including things like atmospheric deposition.

Question: How long will the agreement between GE and CT DEP to monitor fish tissue continue?
Answer: The current agreement expired in 2004, but GE is continuing to collect data and will probably continue to do so through the remedial decision-making process. After that, monitoring will be folded into the remedial decision requirements, and it will be ongoing for quite a while.

Question: Is there monitoring to measure the sediment load in CT from the remediation work itself?
Answer: The goal is to have very little additional release from the remediation. In the Pittsfield projects, sheetpiling was used to create dry areas in the East Branch so that there was minimum resuspension and release. In addition, GE has continued to monitor for suspended solids and PCB concentrations in the surface water, before, during and after the removals. There was also a trigger level for stopping work if necessary and reassess the removal operation. PCB levels in the remediated areas are now down to non-detect.

Question: If you use capping as a remediation technology, how will you monitor its effectiveness?

Answer: As we did in the projects in the first two-miles, coring and monitoring the cap is done on a regular basis. We expect we would do the same for the Rest of River, and would include additional monitoring requirements.

Question and Comment: The rejection of in-situ alternatives bothers me. Capping is also experimental and landfilling is not the way to go. There is a lot of potential to do something that is experimental, especially in the primary study area. Just today, heard about a new organism that eats PCBs. Why not consider a new promising technology and try it in a small section?
Answer: We are aware of and track emerging technologies. For the most part, those with merit make their way into EPA's SITE program for more rigorous evaluation. To date, none of the emerging technologies have been deemed effective enough by EPA for full scale implementation. New technologies are often not as promising as they originally sound, especially for very large scale applications. In the past, GE tested alternative technologies involving dechlorination (biodegradation), and found that it occurred very slowly in warm weather, and not at all in cold weather. The incremental improvement was too small to achieve the clean up goals. To review EPA's position on sediment remediation and also on alternative technologies, go to the EPA web site for the Contaminated Sediment Guidance at http://epa.gov/superfund/resources/sediment/guidance.htm.

Comment: EPA should be at the forefront of the emerging technologies, but it is not. Canada, China, and Europe are all embracing innovative technologies. The Housatonic floodplain has some of the highest PCB concentrations in the world, and it will never be dug up because no one will accept the disruption to the areas. The only way to deal with the contamination is through some in-situ technology that eliminates the PCBs.

Question: Has anyone taken core samples from the CT border to Falls Village to see what PCBs are in that area?
Answer: Samples from behind the Falls Village dam were collected, and they showed less that 1 ppm or non-detect.

Question: A few years ago I took some sediment samples while out paddling. The samples from the Falls Village and Bulls Bridge showed 1 to 1.7 ppm. Is it possible to consider the dams being catch basins and therefore good places to remove the PCBs?
Answer: The standard for clean up of residential areas is 2 ppm, and the levels for non-residential areas can be even higher, so the levels you found don't indicate a need for clean up. Also, CT DEP oversaw sampling behind the Falls River Dam in 2005. The report from those samples showed that only 7 out of 17 samples had detectable concentrations. The highest was 0.58 ppm.

Presentation by Peter DeFur, Technical Advisor to the Housatonic River Initiative

Mr. DeFur serves as an advisor for a variety of organizations and has consulted on various contaminated sediment projects, including the Delaware, Fox, James and Spokane rivers and Port Angeles harbor. He noted that he was asked by HRI to evaluate the CMS proposal, and agreed to attend the meeting and provide his initial comments. He noted that he had only four days to review the document after it was released on Feb. 27, and will have additional comments after he has reviewed the document in more detail.

His comments included the following points.

- The document is unexceptional and fairly thin in its descriptions of the primary technologies. It takes a "business as usual" approach for EPA sediment remediation projects. It should include comprehensive documentation of the major technologies, especially capping, since it is used extensively, but does not have a long track record. Monitored natural recovery has been tried and has not succeeded in several rivers, and the experience with it should be reviewed as well.
- The references are excellent and the document is well organized and well put together.
- It is disappointing to see the extent to which CT has been ignored. It occupies a substantial length of the river and has numerous old dams. There is only one reference to meeting CT legal requirements, whereas MA laws and standards are discussed in more detail. Existing information seems insufficient to characterize the river in CT.
- There is almost no consideration of alternative and innovative technologies. RCRA and Superfund unfortunately do not require best available technologies and therefore don't force the technology to evolve like other environmental statutes such as the Clean Water Act and Clean Air Act. Innovative techniques could be used in a variety of places because the river has a diversity of conditions with fast, slow, deep, and shallow waters.
- The decision to define the floodplain boundary on the basis of PCB contamination is not defensible. Floodplains are usually defined on biological grounds.
- Institutional controls are included in many alternatives, but they are not effective. The primary institutional control mechanisms are fish consumption advisories, and it is known that citizens disregard these advisories and eat the fish they catch.
- While PCB levels are tailing off, the levels at which the have tailed off are still unacceptable. Reasons for continuing contamination could include that benthic organisms are thriving and sending PCBs up the food chain, and atmospheric recycling and deposition of PCBs in the watershed. The levels at which concentrations are leveling off are still not safe for human health or the environment.

Additional Comments from Participants

Request: EPA is asked to extend the public comment period for the CMS proposal, given the size of the document.
Response: EPA will consider the request and let the public know of their decision.

Question: What is the time frame beyond the next six months for how long it will take EPA to make its final decision and begin any remediation projects?
Answer: The current projection is to get a proposed alternative out for public comment by late April or May, 2008. We will come back to CT to discuss the proposed alternative before the final decision is made.

Question: How much funding has been set aside for the Rest of River cleanup?
Answer: Under the Consent Decree, whatever decision is made and upheld regarding the remediation, GE must implement the decision and pay for it. Also under the Consent Decree, a number of millions of dollars have been set aside to pay EPA costs for getting to a decision. EPA has also used its own money to complete some of the studies.

Question: Regarding funding, are performance bonds under consideration to ensure that there is money in case the remedy does not work?
Answer: The Consent Decree has a financial insurance component. It is not necessarily a performance bond.

Announcement of Fish Advisory Training Program

Sharee Rusnik from the CT Department of Public Health (DPH) announced that DPH is sponsoring a series of Train the Trainer programs to educate local concerned citizens about the fish advisory process. The purpose of the program is to provide background on the fish consumption advisories, teach folks how to teach others about the advisories and about which fish to avoid because they are typically more contaminated. She asked for volunteers to participate in the program and several individuals signed up.

One CCC member commented that the fish consumption advisory signs are poorly worded and need to be changed to be more user friendly and readable. She also noted that it would be great to train people on how to filet the fish they catch, since some people are eating parts of the fish that they shouldn't be eating. Ms. Rusnik said that was exactly the feedback that DPH desired and agreed to work to make those improvements.

The meeting adjourned at 8:30 PM.

List of Attendees

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Name	Organization
Traci Iott	CT DEP
Susan Peterson	CT DEP
Nancy Cohen	CT Public Radio, WNPR
David Parker	The Republican-America and Kent Tribune
Mike Powers	CT DEP
Kim Herkimer	Dark Entry Forest
Jean Cronauer	Norothwest Conservation District
Chuck Kilson	Schactikoke Tribal Nation
Joseph Velky	Schactikoke Tribal Nation
Michael Zarba	Town of New Milford
Peter O'Toole	GE
Tim Gray	Housatonic River Initiative (HRI)
Peter DeFur	HRI consultant
Anthony DePalma	New York Times
Robert Miller	The News-Times
Michael Benjamin	Kent School
Jesse Klingebiel	Housatonic River Commission
Cilla Mauro	Housatonic River Commission
Judy Herkimer	Housatonic Environmental Action League
Carla Bigelow	Cornwall Assoc.
James Fowler	W. Cornwall resident
Mary Wood Lee	W. Cornwall resident
Lynn Fowler	Housatonic River Commission
Caprice Shaw	Housatonic Valley Association
Elaine LaBella	Housatonic Valley Association
Kathryn Doughton	Litchfield County Times
Ruth Epstein	First Selectman, Kent
Bill Arnold	Kent Landtrust, Weantinogle
Curtis Read	Northwest Conservation District
Lynn Werner	Housatonic Valley Association
Marcia Wilkins	Sierra Club
Glen Fettes	Milford, CT
Dan McGuinness	Northwest CT Council of Governments
Eileen Bevans	Housatonic Fly Fishermen
Russ Bevans	Housatonic Fly Fishermen
Jame Galipault	Citizen
Deb Bennett	Citizen
Dennis DePaul	Kent Conservation Commission
Ted Marks	KentTribune.com
Sharee Rusnik	CT Dept. of Public Health
Rod McLaren	GE
Michael Carroll	GE
John Kilborn	EPA

Angela Bonarrigo	EPA
Dean Tagilaferro	EPA
Susan Svirsky	EPA
Andrew Silfer	GE
Stuart Messur	Arcadis-BBL
James Rhea	QEA