

**Citizen Coordinating Council
Kent Town Hall
November 28, 2007
Meeting Highlights**

Participants: See attached list.

Meeting Location: Kent Town Hall, Kent, Connecticut

Introduction: Suzanne Orenstein, Citizen Coordinating Council Facilitator, opened the meeting with a round of introductions and review of the agenda. Suzanne also explained that this meeting would focus on information regarding the Rest of River process over the next 6-8 months, and on a presentation by John Lortie of Stantec and Susan Svirsky from EPA on ecological restoration methods and results following a sediment and soil removal.

Presentation on Restoration Methods and Results

Suzanne Orenstein briefly introduced John Lortie of Stantec (formerly Woodlot Associates), who with Susan gave the evening's presentation on *Ecological Restoration Following a Sediment and Soil Removal*. The presentation included information on how restoration is conducted to maximize its success and three case studies of previous restoration projects.

John Lortie provided an introduction for the presentation. He covered the following topics:

- Ecological Restoration
 - Identifying restoration goals and objectives
 - Understanding and planning for existing and post remediation conditions
 - Integration of restoration with remedial action work
 - Restoration implementation and monitoring
- Case Studies
 - Loring Air Force Base – East Branch Greenlaw Brook
 - East Branch Housatonic River

Mr. Lortie made the following major points in his presentation, and provided significant detail and description to illustrate these points. The complete version of the presentation is posted on the project web site: <http://www.epa.gov/region01/ge/publiceventsandmeetings.html> and will be placed in the repositories on a CD.

- For restoration to be successful, goals need to be realistic. Reestablishing communities of species that were in the location prior to the remediation and that meet the restoration goals is key, and assuming the appropriate time frame (which can be several years for newly planted species to flourish) is also important.
- Hydrology is the driving force for planning for successful restoration. Matching species to the hydrological conditions requires an excellent understanding of the hydrology and soil characteristics.
- Understanding the existing conditions of the area to be restored is a very important first step for successful restoration after remediation. This includes characteristics of the hydrology (existing, post-remediation, and post restoration), soils, baseline ecological characteristics,

and grading and elevation details both pre and post removal. These data constitute prior proper planning, one of the most important elements of successful restoration efforts.

- To evaluate success, measurable parameters for assessment over time need to be developed up front in the restoration process. These parameters become the basis for the restoration design and for long-term monitoring post-restoration.
- Restoration construction is usually most efficiently done as a direct follow-on to the remediation, using the same construction roads and equipment when possible to minimize the disruptions to the areas that would result from entering and preparing the construction area multiple times. This close sequencing also can make sure erosion of restoration materials is prevented or minimized.
- The case study photos presented showed three major restoration projects at various stages in the restoration process. These studies showed significant success after three or four years of growth and management.
- One threat in restoring plant communities is invasive species. Restoration practices address management of invasive species very aggressively, including planting densely with species that can resist invasive species.

Discussion and Questions and Answers Regarding the Presentation

Q. I noticed that Woodlot Alternatives has merged with Stantec. Could you explain why there was a merger?

A. The merger provides us with expanded opportunity, increased resources, and additional and more modern equipment.

Q. Will soil in the floodplain be tested prior to dredging in the Rest of River?

A. Yes, the soil will be tested to determine soil properties and characteristics for restoration consideration.

Q. Will the soil also be tested at depth?

A. Yes. Geotechnical testing at depth will be conducted to support the remedial design. Soil testing at depth for restoration purposes will only be conducted to the depth of the removal action.

Q. What happened to the contamination at Loring Air Force Base?

A. The contaminated material from the brook and other areas on the base were placed in a specially designed landfill located on the base.

Q. How clean is the area remediated at Loring? Is it clean enough to eat the fish?

A. The PCB fish tissue levels are at background concentrations. Background concentrations are measured in parts per billion.

Q. During the remediation at the 1.5 Mile Reach at the GE-Pittsfield Site were unexpected contaminants (other than PCBs) found?

A. There was some coal tar co-located with PCB impacted sediments.

Presentation on Rest of River Corrective Measures Study Process

Susan Svirsky, EPA Project Manager, for the Rest of River gave the evening's presentation on *GE/Housatonic River Site, Rest of River, Corrective Measures Study Process*. She covered the following topics. (Additional information about each topic can be found in EPA's Corrective

Measures Study Process Fact Sheet available on EPA's website at <http://www.epa.gov/region01/ge/thesite/restofriver-reports.html#General> or by request.

- Evaluation of Cleanup Alternatives
- Description of the Rest of River (ROR)
- Site Background
- Rest of River Consent Decree Process
- Description of a Corrective Measures Study
- Process for Conducting the CMS
- Use of the Predictive Model in the CMS
- In-Place Sediment Alternatives
- In-place Floodplain Alternatives
- Management of Material Alternatives
- Technologies Being Evaluated
- Evaluation Criteria EPA will use
- Interim Media Protection Goals (IMPGs)
- Process Following GE Submittal of CMS
- Schedule for CMS Process
- Opportunities for Public Involvement

Discussion and Questions and Answers Regarding the CMS Process Presentation

Q. In the Upper ½-Mile and 1½-Mile there was a 99% reduction of PCBs removed from the system?

A. Yes, approximately 99% reduction in PCB concentrations for sediments and benthic invertebrates.

Q. What was the time frame for the ½-Mile Reach and 1½-Mile Reach remediation?

A. GE conducted the clean-up in Upper ½-Mile Reach from 1999 to 2002 and the 1½-Mile Reach was conducted by EPA from 2002 to 2007.

Q. How much did the remediation conducted to date for the Housatonic River cost?

A. EPA does not know GE's costs for the Upper ½-Mile clean-up, and GE is not obligated to provide information about these costs. The 1½-Mile clean-up cost approximately \$84 million and was conducted under a cost sharing agreement between GE and EPA.

Q. How did restoration come about?

A. The restoration is a mandatory component of remediation per the Consent Decree.

Q. Who is responsible for the long term monitoring of restoration?

A. GE is responsible for the long term monitoring and associated cost.

Q. How much material was removed?

A. Approximately 92,000 cubic yards of sediment and bank soils were removed.

Q. Is the model used in the Corrective Measures Study a continuous model?

A. Yes, the model projections in the Corrective Measure Study will simulate a minimum of 52-years.

Q. Is only monitored natural attenuation being considered for remediation in Connecticut?

A. Yes, there is a detailed discussion in the Supplement to the CMS Proposal regarding remedial consideration in Connecticut. The PCB concentrations decline dramatically downstream of Rising Pond Dam, which is located in Great Barrington, Massachusetts. There are long-term fish tissue PCB data for Connecticut that were collected and evaluated over time that show PCB concentrations in fish declining. PCB concentrations in the CT portions of the river sediment are less than 1 mg/kg. It would not be necessary or cost-effective to conduct extensive remediation for PCB concentrations at those concentrations.

Q. Can EPA provide PCB data for areas behind Connecticut dams?

A. Yes, please submit your request and the data will be provided.

Q. Regarding the Chemical Treatability process, where super critical fluids considered?

A. No, the treatments use physical and chemical extraction techniques.

Q. Will the CMS Report be publicly available?

A. Yes, the CMS Report will be available in the Housatonic River Information Repositories. It may be possible to provide a limited number of compact disk copies of the CMS Report upon request.

Comment – With regard to monitored natural recovery for Connecticut and below Rising Pond Dam, the PCB concentrations are low, but increase at the dam sites. These PCB concentrations in sediment and continued fish consumption warnings are of concern to the commenter. The commenter mentions that a recently collected fish from Connecticut contained elevated PCB tissue concentrations. The commenter believes that sediment located behind dams contribute to the elevated fish tissue PCB concentration and not water column exposures. The commenter recommends minor remediation at dam sites. Otherwise fish advisories will always remain.

Response - The area behind the dams are very large from hundreds to over 1,000 acres. Contaminant concentrations in CT have been declining, and CT has eased some fishing restrictions over time. With regard to the incident involving elevated fish tissue contamination in a single pike, other data suggest that one sample was atypical. It is likely there was either a laboratory analysis problem or the fish was transplanted to the capture location from a different area.

The model will be able to predict PCB concentrations in fish tissue. And, if monitored natural recovery is unsuccessful and fish contamination does not decline, the Agency can modify the remedial alternative to address the problem.

Q. How long have fish been contaminated in Connecticut?

A. Sampling of Connecticut fish tissue for PCB has been conducted since 1978.

Q. Do we know the nature of the decline in fish tissue PCB concentrations?

A. We know the historic levels of decline in PCB fish tissue concentrations. However, there was a historical release of PCB contaminated sediment during the repair of the Rising Pond Dam which can be seen in the data. Going forward there is the potential for upstream releases of PCBs during remediation that may migrate to downstream reaches of the river. This potential effect will be a consideration regarding future exposures to fish in Connecticut.

Upcoming Dates

On December 5th there will be Massachusetts CCC meeting held at the Berkshire Athenaeum. GE will make a presentation about the results of the Pilot Study for the capping of Silver Lake sediments. EPA will also present the Corrective Measures Study Process presentation that was presented during this meeting.

EPA expects the CMS Report to be submitted by GE to EPA on 3/21/2008. EPA has tentatively scheduled CCC meetings to present the report on March 26 (CT) and March 27 (MA), 2008.¹ As mentioned in the presentation, there will be an informal public comment period on the CMS starting on March 21, 2008, during which EPA will accept written comments on the CMS Report. The written comments will become part of the administrative record.

Comment – The commenter appreciates the CMS Process Fact Sheet. However, the commenter believes there is an omission of contact information for the Technical Assistance Grant recipient, Housatonic River Initiative (HRI). The commenter believes that HRI contact information should have been listed on the Fact Sheet. Also, would it be possible to place the HRI contact information on EPA’s web site to let the public know they have been supported by EPA to assist with public input?

Response: HRI’s web site can be accessed through the “links” button on EPA’s Housatonic River web site at <http://www.epa.gov/region01/ge/index.html>.

Q. Under the best possible scenario, how long will it be before there is an agreement between GE and EPA regarding the ROR cleanup?

A. If there are no appeals, an agreement could occur as early as the fall of 2008. In terms of a start date for remediation, there would most likely be a year of design work prior to in-river activities. The best case scenario for the start of in-river remediation activities would most likely be sometime in 2010.

¹ These dates and locations are revised from those discussed at the Nov. 28 meeting.

**Citizen Coordinating Council
Kent Town Hall
November 29, 2007**

Participants

John Mauer	Soneforge Chronicles
Scott Campbell	Weston Solutions
Philip Hart	Housatonic River Commission
Carla Bigelow	West Cornwall, CT
Robert Miller	The News-Times
Susan Peterson	CT DEP
Don Mysling	CT DEP Inland Fisheries Division
Dennis DePaul	Kent Conservation Commission
Tim Gray	Housatonic River Initiative (HRI)
Jim Murphy	US EPA
Kathy Kessler	HRI, BEAT
Judy Herkimer	HEAL
Charles Kilson	Schaghticoke Indian Nation
Joe Velky	Schaghticoke Indian Nation
Jenifer Gunther	Housatonic Valley Association (HVA)
Elaine LaBella	HVA
Tim Conway	EPA
Verne Henshall	West Cornwall
George Krinsky	Republican-American