

**Community Advisory Group (CAG) Meeting**  
**Hudson River PCBs Superfund Site**  
**Meeting Summary**  
**Saratoga Town Hall, Schuylerville, NY**  
**Thursday July 21, 2016**  
**1:00 PM – 4:00 PM**

**CAG Members and Alternates Attending:** Manna Jo Greene, Gil Hawkins, Timothy Holmes, Abigail Jones, William Koebbeman, Roland Mann, David Mathis, Althea Mullarkey, Merrilyn Pulver-Moulthrop, Julie Stokes, Andrew Squire.

**CAG Liaisons Attending:** Amy Bracewell (NPS), James Candiloro (NYS Canal Corporation), Michael Cheplowitz (USEPA – Region 2), John Davis (NYSOAG), Kevin Farrar (NYSDEC), John Fazzolari (Ecology & Environment, Inc.), Joan Gerhardt (Behan Communications), Gary Klawinski (USEPA – Region 2), Larisa Romanowski (USEPA-Region 2), Lisa Rosman (NOAA).

**Others Attending:** Mark Bergott (NYSDOH), Margaret Byrne (USFWS), Donna Davies (NPS), Justin Deming (NYSDOH), Audrey van Genechten (NYSDOH), Marc Greenberg (USEPA), Dan Harrison (Hudson River Fisherman), Rich Kallen (Times Union), Regina Keenan (NYSDOH), George Lukert (E&E), Simon Littell (Hudson River Foundation), Dan Lundquist (Riverside Resident), Kathleen Moore (Post-Star), Sara O’Shea (Scenic Hudson), Mike Traynor (Louis Berger Group), Kirby Webster (Skeo Solutions).

**Facilitators:** Patrick Field and Eric J. Roberts

**Members Absent:** David Adams, Cecil Corbin-Mark, Laura DeGaetano, Darlene DeVoe, Rich Elder, Rich Fuller, Brian Gilchrist, Robert Goldman, Robert Goldstein, Peter Goutas, Timothy Havens, Jeffery Kellogg, Richard Kidwell, Edward Kinowski, Aaron Mair, Laura Oswald, Thomas Richardson, Lois Squire.

**Action Items:**

CAG Members

- Volunteer group to review membership recommendation and propose additional interest groups to consider inviting to participate in the CAG.

EPA

- Provide the CAG with the floodplains sampling fact sheet and RI/FS fact sheet that landowners will receive.

CBI

- Coordinate volunteer group reviewing membership.
- Check-in with members who have not attended a CAG meeting recently.

**Welcome, Introductions, and Review of the October and December 2015 Meeting Summaries**

Patrick Field, facilitator from the Consensus Building Institute, welcomed those in attendance. No changes were suggested to the March meeting summary, which is now considered final. The CAG adjusted the meeting agenda, shifting EPA updates to the end of the meeting. Meeting handouts and presentations are available on the project website: <http://www.hudsoncag.ene.com/documents.htm>

## **Hudson Fish Data Overview (with a focus on the lower-river data)**

Mark Greenberg, EPA, presented Hudson River fish data from both NYSDEC and GE (with EPA oversight). His main points are summarized below.<sup>1</sup>

Fish data collection and analysis is intended to help people determine progress toward achieving the Remedial Action Objectives (RAOs). Data analysis can both show short-term changes in conditions and identify long-term trends. Now that the remedial action is mostly done, the data collection and analysis will document interim risk reduction. Data was collected in both the upper river (Hudson Falls to the federal dam in Troy) and the lower river (the Troy dam to the Battery in NYC).

A comparison of black bass data collected between 2009 and 2014 to the baseline shows increased fish tissue concentrations the year after dredging. These findings were expected, and some recoveries have been seen over time. Comparison of baseline data to lower Hudson River fish tissue PCB concentrations from samples collected at Albany/Troy during dredging show the concentrations generally within the baseline period for black bass and pumpkinseed samples below the dam. Some pumpkinseed samples were above the baseline. Overall, both species remained close to baseline during dredging.

Several trends can be seen in the striped bass data collected by NYSDEC at Albany/Troy between 1977 and 2015. The highest levels of PCB concentrations are seen between the 1970s and 1990s. Since 1995-1997, concentration levels in striped bass below the Troy dam have decreased; likely due to source control efforts include the environmental response to the Allen Mill release, and the state's ongoing clean-up at Hudson Falls. A member commented that striped bass are migratory and black bass are not. Mr. Greenberg responded that this could explain some of the differences in the results, since migratory fish may not get all the exposure in the lower Hudson River.

Mr. Greenberg identified a period of uncertainty on some graphs showing tissue concentrations at Albany/Troy from 1990 to 2014, noting that the NYSDEC standard file approach was not used between 2009 and 2013 for striped bass, and between 2007 and 2013 for the Black bass. Mr. Greenberg noted the decline of PCB concentrations after 1995 on the graph showing striped bass tissue concentrations at Albany/Troy.

There has not been much change in white perch PCB concentration between 1990 and 2014.

The pumpkinseed data collected pre-baseline (2004-2008) shows a general decline. Concentrations increased during dredging and as dredging moved downstream; however, the peaks of the increases stayed within the baseline. Mr. Greenberg hypothesized that the increases were due to pumpkinseed being rapid integrators, which would show increases more quickly, and noted that the low point in 2010 could be due to a lack of activity on the river. Mr. Farrar, NYSDEC, added that the locations where pumpkinseed were caught varied from year to year, which might also be the cause of the low point in 2010.

Mr. Greenberg concluded that the general trend is that concentrations tend to flatten the further one goes into the lower river and that overall the observations are within expectation. There has not been much change in the lower reaches of the river. The trend of declining concentrations after dredging is encouraging.

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<sup>1</sup> For additional detail, please see the Hudson Fish Data Overview slide deck here: <http://www.hudsoncag.ene.com/files/EPAHudsonFishDataOverviewJuly2016.pdf>

CAG member discussion about the lower river fish data focused on the following topics:

- *Baseline data:* A member asked about the basis of the baseline research for EPA and GE data, and whether GE was using a baseline for the fish monitoring that they had used previous to the ROD. Mr. Greenberg said the baseline forming the basis of the monitoring program was designed using historical data from the 1970s mostly collected by NYSDEC. Responding to a question, Mr. Greenberg explained concentrations of PCBs at the baseline level. They are lipid-normalized concentrations, approximately 200-300 mg per kg or single digit part per million wet weight concentrations. The ultimate goal is 0.05 mg per kg wet weight. The CAG member responded that even the baseline concentrations of PCBs in fish tissue are unacceptable. Mr. Farrar, NYSDEC, said no data is available prior to 1947 and that monitoring for chemical contamination likely started in the 1950s or 1960s. However, since PCBs were introduced in the 1930s, it would be reasonable to assume the PCB concentrations in fish tissue were zero prior to the 1930s.
- *Oversight of GE filet handling:* The group discussed how it occurred that for much of the dredging period GE did not use the standard NYSDEC filet approach. Mr. Gary Klawinski, EPA, said although they provided some oversight, EPA also relied on NYSDEC staff to check the GE lab for several years. When it was nearing time for dredging and remedial action, a revised plan was developed and the state no longer visited the lab. In 2012, EPA found the filets were not being done correctly. Mr. Farrar, NYSDEC, added that the problem was corrected over the next couple of years. [See also earlier CAG meeting notes for more detail on this.]
- *Whole fish versus standard filet samples:* A member expressed concern about using filet samples when people still eat the entire fish (which might have higher concentrations because of organ tissue that concentrates contaminants). Members said they see children growing up eating sometimes whole fish from the Hudson. Mr. Farrar, NYSDEC, acknowledged that different communities eat different portions of the fish. NYSDEC created the standard filet approach in 1977 to sample all fish samples the same way and ensure that sampling methods could be reproduced to trends; GE did not establish the approach.
- *Declines in fish tissue concentrations after dredging:* A member noted that concentrations increase after dredging and are anticipated to decline thereafter. She asked if it was thought that a more rapid decline would occur after dredging. Mr. Greenberg said that is not necessarily the case; downward trends are expected to continue but the rate is not known. Mr. Klawinski added that declines may be faster in some places due to species or area of the river; EPA will have to look at the data species by species and location by location. Another member expressed concern that species in the lower river are not showing as much improvement as hoped after dredging. Mr. Greenberg shared this concern and noted that there is not yet enough data to indicate whether the decline will continue. A member asked if in the ROD a steeper decline was expected after dredging was completed. Mr. Klawinski said the effect in the lower river is yet to be seen. He added that a model looked at recovery rates at different stations, but the remedy was focused in upper river and EPA knew that work would also improve the lower river, although specific commitments were not made regarding the lower river.
- The group discussed timeframes for concentration declines after a member asked whether timeframes were established in the upper and lower rivers for recovery. Lisa Rosman, NOAA, commented that the feasibility study contains figures for each species and projects recovery time for the lower river and offered to share the documents with the group. Mr. Klawinski said the reports also talk about cautions in the ROD about the reliability of the projections are and the difficulty of making such predictions. A member agreed that it is difficult to predict and said that assumptions should be revisited if expectations were not being met. After the 2017 and 2022 five year reviews, the CAG will have a better understanding of the impact of dredging.
- *Expectations for eating fish:* A member said she thought the ROD said some fish would be edible immediately after dredging was completed and asked if that expectation would be met. Mr. Greenberg said there have been observations of fish near that level, but not on average.

- *Source of PCBs in lower river:* A member stated that the contamination in the lower river was exacerbated when the Fort Edward Dam was removed and that other sources of PCBs contributed contamination to the lower river. Mr. Farrar stated that PCBs had passed over the dam and through the power plant long before the Fort Edward Dam was removed. He added that there is no evidence that the removal of the dam was the only event that transported PCBs down river.
- *Monitoring points at the lowest reaches of the river:* The Tappan Zee station is the lowest monitoring station in the clean up monitoring program; however, NYSDEC's monitoring program includes some points in the upper Tappan Zee, Piermont, and one at George Washington bridge (the furthest south point).

## **Floodplains Update**

Michael Cheplowitz briefed the group on progress in the floodplains. His main points are summarized below.

Additional soil sampling in the floodplain will begin in the fall, with the goal of identifying where PCBs are located and at what concentration. Approximately 900 samples will be collected from approximately 400 properties (with the number of samples determined using data gap analysis). The samples will be collected across a variety of land types (e.g. wetlands, forest, agriculture, etc.) and will be collected up to two feet in depth depending on the location. The results will be incorporated into project databases, and subsequent versions of the floodplains characterization report will summarize the data. The data will also feed into the human health and ecological risk assessments.

Soil sampling will require extensive engagement with property owners. GE will initially contact property owners by sending property access agreements and a sampling fact sheet. EPA will send an RI/FS fact sheet to floodplains landowners too, as well as the results of the sampling and a map of sampling locations when available. EPA is developing a community involvement plan describing how the EPA plans to engage the community. The RI/FS study is estimated to take 5 to 7 years for completion.

CAG member discussion about the floodplains update focused on the following topics:

- *Uptake of PCBs in vegetation:* A member asked EPA to confirm that PCBs come up through animals and not plants. Mr. Klawinski said that is generally correct and said EPA would be producing a technical report about why plants are not included as receptors.. The member said that those cultivating hay or grass along the river are more concerned about plants than about animals as ecological receptors. Mr. Klawinski clarified that in harvesting grass it is possible to also pull up some soil and that EPA will be looking at that issue. A member said that she initially got involved in the CAG because of concerns about PCB volatilization and deposition on vegetation; she said she and others were advised not to feed crops to cattle at the time. Mr. Klawinski said plants do not generally uptake PCBs and that EPA would review the issue along with other potential impacts. Another member said his farm has been seriously impacted by PCBs. His land was a dairy farm and the cows were drinking 30-40 gallons of river water per day, which then ends up on the fields as fertilizer. Additionally, his farm and other farms drew thousands of gallons of river water for irrigation. In either case, farmers were concerned about safety and agriculture in the area has been severely impacted. Mr. Klawinski said significant levels of PCBs have not been found on lands irrigated with river water.
- *Determining the extent of PCB contamination, and property value impacts:* A member asked how EPA would determine the full extent or area over which PCBs are likely to be located, noting that this will have an impact property values. Mr. Cheplowitz responded that it depends on the stage of the evaluation. In some stages it may be necessary to find the edge of the contamination, while

in others they will group data together and use statistical analysis to determine the likelihood of contamination between sample points. Mr. Klawinski requested the CAG provide input on considerations about property value impacts and sample collection, noting that the floodplains do not extend very far from the river, so the PCBs are concentrated near the river. CAG members would like to discuss property values specifically, noting that some realtors are asking if properties have been inspected for PCBs.

- *Migration of PCBs in upland areas and potential for recontamination from future flood events:* Mr. Klawinski said the NYSDEC was collecting flood mud and worked in concert with EPA to develop the floodplains sampling program. They now have a database of information about PCBs in floodwaters and sediment deposited by flood events. He added that it is encouraging that the concentration levels found were below a part per million. Overall, he said the risk of reintroducing PCBs to the upland area is minimal.

### **SKEO Solutions CAG Assessment Overview and Discussion**

Ms. Kirby Webster, SKEO Solutions, presented an overview of the assessment report and recommendations about the CAG and how it operates. Her main points included the following.

Ms. Webster interviewed 21 people, including many CAG members, between December 2015 and April 2016. After composing a draft assessment report based on the information from the interviews, interviewees had the opportunity to review the draft and clarify points or provide additional information and suggestions. Those changes were incorporated into the final report. Interviewees identified several areas where there is opportunity for improvement; the report elaborates upon 12 specific recommendations. She recommended that the CAG address each of the recommendations. The facilitators suggested the CAG initially review the membership recommendations during today's meeting.

CAG member discussion of the report focused on the topics of representation, and influence and control:

- *Representation:* Several members focused on the topic of representation. The report does not address the differences between members who volunteer their time to participate and those who are paid to be at the table. Someone said that people who live and own property in the floodplains will be most impacted and should be involved. Those in the floodplains have concerns about real estate values, crops, and livestock. Farmers in particular are concerned because their ability to continue business is directly tied to the land in the floodplains.
- *Influence and control:* Members commented on the CAG's limited ability to exert influence and control over the outcomes of the clean up. Some members said they felt powerless because they attend and voice concerns but the CAG has no way of enforcing or ensuring follow through on their suggestions. Another said CAG members learned valuable information only because the environmental representatives studied the technical details and asked the right questions; yet this also doesn't always change the direction of the clean up. Another member said the human health risk was the driving force to move the project forward but sometimes it felt like human health risks had been put on the back burner. They also noted the group must figure out a way for local people, who are the most concerned and most likely to be impacted, to be able to influence the floodplains ROD. Ms. Webster said one of the recommendations is to find a way to track some of the CAG's major comments or themes and see how they are incorporated into the clean up.
- *Flexibility:* The group discussed a particular instance where feedback was provided but did not seem to be incorporated into the project, and the need for flexibility during the clean up process. A member described an instance where a cove was dredged, which made it easier to use the cove and made many in the area happy. The area was subsequently backfilled, which upset people

because it was a high use area that could no longer be easily used. Concerns were raised, but the member felt it had no impact. Mr. Klawinski said he had met with the property owners and reached a compromise to create a channel for the resident to access the dock. He noted that the compromise to balance habitat with access went against the habitat reconstruction rules and if they didn't put anything back then the habitat would have been very different than how it was prior to dredging. Habitat not replaced in the same location was replaced elsewhere. Members noted that there should be flexibility in the floodplains work so that when local issues and use considerations arise, the EPA can manage resources to ensure local use.

The group then discussed the report's membership recommendation, which read: "To ensure all stakeholder perspectives are heard at meetings, evaluate and reestablish CAG membership, requirements and responsibilities, and CAG operating procedures. Update the email and mailing list as the cleanup transitions to focus on the site's floodplains. After the evaluation, membership maintenance should take place regularly, as determined by the CAG's comfort level and agreement on this topic. The CAG could devote a meeting to the initial evaluation and determine next steps from there."

CAG member responsibilities from the groundrules are to:

1. Attend all regularly scheduled meetings. If a member is not able to attend a meeting, s/he may communicate views through another member or the facilitators.
2. Participate in educational briefings on the past and the present of the site, as needed, to ensure a shared knowledge of key issues, technologies, and the Superfund process.
3. Arrive at each meeting prepared to discuss the issues on the agenda. Preparation includes reviewing meeting summaries and material mailed out prior to each meeting.
4. Help formulate the group's meeting agendas and work plans.
5. Represent the views of his/her constituents (e.g. organizations, businesses, neighborhoods) as well as his/her own individual views.
6. Provide information to the public and to constituents to ensure that the larger public is kept informed of the CAG's efforts.
7. Strive throughout the process to engage in respectful, constructive dialogue with other members of the group, bridge gaps in understanding and seek creative resolution of differences.

Eric Roberts, from the facilitation team, presented an analysis of meeting attendance from the past 10 meetings (over roughly the last two years).<sup>2</sup> The data showed the percentages of meetings at which each particular stakeholder perspective was represented. Attendance ranged from zero to 100 percent. Maps were also presented that showed various land ownership categories in the floodplains. The CAG made the following points about membership:

- The environmental stakeholders have high attendance levels, and some environmental group representatives regularly reach out to some stakeholders with low attendance.
- Some of the stakeholders who aren't participating may have changed jobs. It would be worth asking their organization if someone else can participate on their behalf.
- Elected officials come and go, but planning board and zoning board representatives are usually consistent and could be invited to participate.
- It would be useful to have Cornell Cooperative Extension to represent agriculture, but funding is an issue for them.
- People stop attending CAG meetings for a variety of reasons. Some became discouraged with the process. Others stop attending when a key item of concern for them is resolved. For example,

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<sup>2</sup> See the slide deck here:

<http://www.hudsoncag.ene.com/files/Skeo%20CAG%20Assessment%20Overview%20and%20CBI%20Discussion.pdf>

many of the people who had an interest in the siting of the dewatering facility stopped attending when that issue was resolved. Still others stop attending because they found other avenues through which to engage with EPA or GE. For example, there was a small group in Fort Edward who was directly impacted and who worked day jobs and were not able to attend meetings; these people met with GE and EPA occasionally as a group.

- There may still be a lot of interest from some of the groups who aren't participating, especially as work moves into the floodplains.
- We need to think carefully about how to reach out to municipalities and figure out how best to engage them.

The facilitators suggested several possible options going forward. Members who are not attending could be contacted, reminded of the expectations, and asked if they are interested in participating, while stressing that the stakeholder perspective they represent is currently missing from the conversation. Membership could be consolidated for some interest groups.

CAG members discussed how to proceed on membership. They decided that a volunteer group, representative of the various interests on the CAG and who know the local interests in the floodplains, would discuss membership and propose to the full CAG a set of additional interest groups that could be invited to participate. Then, the CAG would discuss those recommendations at the next CAG meeting. Julie Stokes, David Mathis, Andrew Squire, and Merrillyn Pulver-Moulthrop volunteered for this subgroup. CAG members suggested that the subgroup also invite Ed Kinowski or Joe Finan to participate. The group requested EPA or NYSDEC provide the map of proposed projects from several years ago.

### **Brief Updates and CAG Business**

Participants made the following updates and comments related to CAG business:

- A member said that as part of the five-year review process, the group talked about having one person from Saratoga County and one person from Washington County. The Washington County alternate is former CAG member, Chris DeBolt. A member proposed he be reinstated as a CAG member. The group approved his reinstatement. [Note added after the meeting: Chris DeBolt currently has a CAG seat representing economic development and he receives all CAG member communications.]
- Margaret Byrne, U.S. Fish and Wildlife, announced the release of several new publications including an injury assessment on mink; a letter addressed to the EPA from NOAA, USFWS, and the NYSDEC in regards to their goal in the five-year review; and a groundwater report from September 2015 documenting the exceedance of safe levels of PCBs in groundwater near Fort Edward, Hudson Falls, and Stillwater.