Community Advisory Group (CAG) Meeting
Hudson River PCBs Superfund Site
June 25, 2019
Saratoga Springs, NY

Meeting Summary

Next Steps

- EPA
  - Share PDFs of posters with CBI to share with CAG.
  - Have a follow-up conversation with Schuylerville and NYS Canal Corporation about near-term maintenance along the canal.
  - Share the project fact sheet and any other background material with CBI to distribute to CAG.
- CBI
  - Distribute fact sheet and poster PDFs to CAG.
  - Provide language for website to make clear that CBI is point of contact for CAG.
  - Develop options, in collaboration with admin team and EPA, for sorting agendas and/or meetings into geographically relevant topics.
  - Reach out to GE regarding their meeting participation.
  - Revise operating procedures per today's discussion and circulate for final comment (if no further comments, will consider revisions approved).
  - Work with EPA and admin team to schedule future meetings and to discuss meeting location options.
- E&E
  - Update website to reflect CBI as point of contact for CAG & to post revised operating procedures.

Next Meeting: The next CAG meeting will take place in fall – winter 2019. Topics suggested by the CAG include habitat restoration (with relevant agencies and state participants present), and an NRDA update. One CAG member requested that compensation to property owners be discussed. .

Welcome, Introductions, Update on the May 2019 Meeting Summary

Ona Ferguson, CAG facilitator, welcomed participants. She let the group know the May CAG meeting summary was not yet available for review. CAG meeting handouts and presentations are available on the project website: http://www.hudsoncag.ene.com/documents.htm. Meeting participants are listed at the end of this summary.

EPA Review of Sample Collection and Data from Old Champlain Canal in Schuylerville[1]

Michael Cheplowitz, Environmental Protection Agency (EPA), shared an update regarding sample collection and available data on sediments in the Old Champlain Canal in Schuylerville. The Canal is being evaluated as part of the Floodplain remedial investigation/feasibility study (RI/FS) as "standing water," though it is unique from other standing water areas in that it has a

continuous flow, is hydraulically connected to the Hudson, is known to be depositional, and requires regular maintenance. Additional characterization is needed for sediment removal and maintenance of the canal.

EPA/General Electric (GE) sampling took place in 2012 and 2017. New York State Departmental of Environmental Conservation (NYSDEC) took samples in 2017, the results of which were uncertain. Following NYSDEC's sampling, EPA and NYSDEC agreed additional sampling was needed to resolve uncertainty. EPA/GE sampling this year includes Phase 1 sampling of surface sediment and a Phase 2 sampling for deeper sediment characterization. Phase 1 of the planned sampling includes five samples around areas that had previously shown to be elevated. The results still need to be confirmed, but they preliminarily indicate non-detect.

Phase 2 sampling will be conducted with the goal of deeper sediment characterization for PCBs and other parameters. This data is required for the RI/FS to determine the nature and extent of contamination and for sediment removal and maintenance. The sampling protocol is developed in close coordination with the Town, Village, and NYSDEC. GE is required to evaluate the nature and extent of PCBs are part of the floodplain program and has agreed to assist with other needed information.

EPA will be receiving data from GE soon and will coordinate with NYSDEC and keep the town and village informed through the quality control (QC) process. Floodplain work, including a preliminary risk assessment, short-term actions, and communication with floodplain residents, continues in the meantime.

Questions and comments (responses from EPA are in italics):

- Is it correct that the Town is unable to remove sediment from the Canal due to PCBs? Who is responsible? *EPA has been coordinating with the Town, Village, and NYSDEC to determine what sampling is needed. GE has also said it will assist in that effort.*
- Could there be an emergency action? *Decisions on action depend on what is found.*
- Flooding is a great concern to people in the community. Regardless of the interpretation of data, detectable amounts of PCBs make the community worried because we can't mitigate flooding, and therefore have water going into the park. From an economic development perspective, the canal situation is an obstacle in the way of successful revitalization of the Village and costs us economic growth and the ability to sell ourselves as a healthy place to live.
- Town staff are afraid to touch anything (e.g. removing trees or debris) given limited knowledge of the contamination. The Department of Transportation doesn't unclog five culverts for the same reason. The delays in conducting sampling and advancing this process are frustrating. The mayor has asked NYSCC what can be done about a tree that has fallen into the canal and been told that crews should put on Tyvek suits and pull it out. *EPA's focus is the possible presence of PCBs in the canal. EPA is also cooperating with the Town and Village to minimize the potential for delay to their redevelopment efforts due to the presence of PCBs.*.
- The Mayor of Schuylerville cannot be here due to a work commitment, but we are concerned about the entire 1.25 miles, not just the area selected. EPA has not been working closely with the Village and Town. EPA did not contact the Mayor or

Supervisor before this meeting. EPA must be more responsive to people living in this community. We were surprised to hear you were going to start Phase 1 sampling. *EPA indicated they continue to coordinate closely with NYSDEC and have been communicating directly with the Mayor and Supervisor.*

- The sediments in the limited section of the Canal are mostly coming from stormwater overflow, not from sediments from Lock 5, when the Canal was hydrologically connected and PCBs were flowing through. People in the town believe the hydraulic connection between the canal and the river should have put this area in the first phase of the cleanup, but it was missed and seems like now it is getting put into the floodplains process (and years of RI/FS work before a determination for action). We understood that in previous conversations with the town, EPA agreed to a specific set of evaluations of the canal. We discussed sampling protocols and are baffled to hear EPA isn't doing the more rigorous sampling program expected in fall 2018. We are stuck unable to dredge, fix culverts, or engage in development. *EPA is working to resample the higher PCB concentrations NYSDEC found to characterize the contamination. EPA will discuss the data with NYSDEC and the town and village.*
- Kevin Farrar, NYSDEC said they agree with EPA's resampling and using the re-sampled data to further evaluate the NYSDEC data...

PCBs in Upper Hudson River Fish

NYSDEC presentation

Kevin Farrar, New York State Department of Environmental Conservation (NYSDEC) presented NYSDEC's analysis of data regarding PCB concentration in fish in the upper Hudson.

Mr. Farrar first showed PCB levels in fish per year, as a weighted average for river reach and species, and then broke out the analysis into specific river reaches and fish species. Mr. Farrar explained that where the most dredging took place to achieve a higher level of cleanup, for example in Reach 8/River Section 1, the fish saw the most improvement in PCB concentration decline and showed the clearest trend of continued declining concentrations. Further down the river, and across the river on average, trends in rates of decline in concentration were less clear or absent.

Mr. Farrar stated that fish PCB concentrations in the upper Hudson do not appear to have declined as predicted by USEPA in the record of decision (ROD). He calculated that the current overall weighted average fish PCB concentration is three times the target to be reached in 2020. He calculated that a greater than 20% rate of decline per year would be needed to meet the remedial action objective (RAO) outlined in the ROD of 0.4 ppm for PCB levels in fish by 2020, and a greater than 10% annual decline to reach the 16-year target of 0.2 ppm by 2031.

NYSDEC's assessment is that the available fish data support a conclusion that the existing concentrations remain well above the EPA RAOs, that the rate of decline is slowing, and that it is unlikely that the RAOs will be met by the existing remedy. It is likely that further remediation of contaminated sediments in the Upper Hudson will be required for the remedial action to meet the EPA ROD RAOs for protection of human health and the environment.

EPA presentation

Ed Garvey, consultant to EPA, presented a review of EPA's analysis of fish data.

Mr. Garvey explained that larger fish are collected in the spring, and that smaller fish are collected in the fall. A species-weighted average is calculated for the purposes of comparing progress against the ROD.

Whereas NYSDEC's analysis was based on eight years of data, EPA's analysis is that the extensive boat and barge activity on the river means that the data is not free of dredging-related impacts until after 2015. EPA's analysis indicated that in general no fish station to date has more than six years of post-dredging data. EPA's position is therefore that, because of variability of when dredging occurred (and ended) on the river, more time will be needed to determine the trend of PCB levels and the effectiveness of the dredging. The significant variability between GE and NYSDEC surveys contributes to EPA's assertion that eight or more years of post-dredging data will be needed. Cumberland Bay in Lake Champlain is an example of a site where it took several years to indicate substantial improvement in fish tissue concentrations.

Mr. Garvey also said that while Upper Hudson fish are appearing to recover relatively rapidly, Lower Hudson fish appear to be recovering slowly or not at all, suggesting that Upper Hudson remediation may have less of an impact than expected on the Lower Hudson fish.

Questions and comments from CAG members *(direct responses from EPA in italics):*

- Did EPA agree to measure success by achievement of the RAOs? Mr. Farrar responded that the primary reason that the state concurred with the ROD was EPA's assertion that the RAO would be the standard against which to measure success. *EPA is comparing progress to the RAO.*
- How are the age of fish accounted for when determining their PCB concentrations? Mr. Farrar said sport fish collected in the spring are representative of what people will eat. These fish are older. The fish collected in the fall are smaller and are targeted to be yearlings to give more time-sensitive data.
- Can you explain the species-weighted average for fish? Can one species doing well give a false sense of how well the fish as a whole are recovering? Mr. Farrar said the species-weighted average combines and weight the concentrations by river section, reach, and species, which mitigates the risk that any one result could mask recovery.
- How were the standards and assumptions in the record of decision (ROD) determined? Are they realistic? It is challenging to evaluate this information and even more difficult to try to explain this to those we represent who are not receiving direct communication about the cleanup. Could you summarize how ROD assumptions were made? *For fish, we are measuring species-weighted average, 0.4 ppm in fish within five years, 0.2 ppm within 16 years, and the ultimate goal of 0.05 ppm in 55 years. There is a fact sheet that explains this.*
- Can the species-weighted average give a false sense of promise if one species is doing well? *We created metrics for the purposes of measurement for the ROD, but we also look at each reach, station, and species to see how things are recovering.* Kevin Farrar said that breaking out analysis by river section, reach, and species mitigates the risk that one

result could mask larger issues. EPA noted that it was always their intention to look at the data in multiple ways (reach, river section, entire upper river, by species etc.)

PCBs in Upper Hudson Surface Water

NYSDEC presentation

Kevin Farrar, New York State Department of Environmental Conservation (NYSDEC) presented NYSDEC's analysis of data regarding PCB concentration in surface water in the upper Hudson.

Mr. Farrar explained that the river picks up PCBs as it goes downstream. Because the flow of the river increases as it goes downstream, there is more total PCB, but the concentration is relatively stable. The data indicates that all three sections of the river are sources of PCBs.

NYSDEC's observations are that surface water total PCB concentrations and mass flux appear to be reduced by approximately two thirds at Thompson Island and Schuylerville, and by half at Waterford. PCB mass flux continues to increase with distance downstream of Fort Edward due to ongoing sources to the water column.

EPA presentation

Ed Garvey, consultant to EPA, presented a review of EPA's analysis of water column data.

High-flow monitoring samples are taken at Waterford and Schuylerville during high water events. High-flow sampling will be included in the operations, maintenance, and monitoring (OM&M) plan, with additional locations and frequency to be determined.

Water column concentrations have declined overall 30-60%. Water column PCB loads to the Lower Hudson have declined similarly. In very high-flow events, the flow can scour sediment and increase concentrations, however, the decreases in concentration from pre- to post-dredging remain across flow levels. EPA agrees with NYSDEC's determination that load gain increases between Schuylerville and Waterford, though the net gain is lower since dredging. EPA noted that monitoring of load to lower river continues and that high flow events in recent years appear to have overall lower loads than in the past events. More data is needed.

Questions and comments from CAG members *(direct responses from EPA are in italics):*

- Why does NYSDEC disagree with EPA's position that extensive boat and barge activity could mean that the data could be influenced by dredging-related impacts until 2015? Mr. Farrar said NYSDEC does not believe that these activities had a significant impact, and stated that the water column data does not show such impacts. *EPA noted that monitoring was not designed to measure the vessel traffic impacts. It was designed to measure the dredging bucket disturbance of sediment impacts.*
- What are the key areas of agreement and disagreement that prevented EPA and NYSDEC from giving the same presentation?
    - Mr. Farrar: *NYSDEC does not believe it takes eight or more years to see a trend in the PCB concentration rate of decline. NYSDEC might agree that it would take eight or more years to confirm that this number is statistically different, however, we would not say that a trend is not apparent. You can begin to understand the*

performance of the remedy now. Do not assume that everything is fine and wait for the trend to confirm that assumption.
    - Mr. Klawinski: *EPA appreciates NYSDEC's perspective and input.*
- This remediation process is meant to use adaptive management. In other sites, you do not ignore indicators before reaching statistical significance. The remedy selected was active remediation and then rapid decline, but we have not seen the OM&M plans, which is concerning.

Revisions to CAG operating procedures

CAG members made minor edits to the revised CAG operating procedures, which were then conditionally approved pending a review of those changes.

Meeting participants

CAG Members

Erin Doran, *Riverkeeper - Environmental Group (Lower Hudson)*
Rich Elder, *Rensselaer County Public Health Department - Rensselaer County*
Maureen Ferraro-Davis, *Sierra Club, Atlantic Chapter, Hudson-Mohawk Group- Environmental Group (Upper Hudson)*
Peter Goutos, *Saratoga County Chamber of Commerce - Economic Development, Tourism, Recreation*
Manna Jo Greene, *Clearwater - Environmental Group (Mid-Hudson)*
Dustin Lewis, *Saratoga County Soil and Water Conservation District - Soil and Water Conservation District*
Terry Middleton, *Town of Fort Edward - Washington County*
Althea Mullarkey, *Scenic Hudson - Environmental Group (At Large)*
Lois Squire, *Town of Easton - Agriculture and Land Conservation*
Julie Stokes, *Schuylerville Chamber of Commerce - Economic Development*
Timothy Holmes, *Schuylerville Chamber of Commerce - Economic Development* (Alternate)
Andrew Squire, *River Edge Farm - Agriculture and Land Conservation* (Alternate)
Linda Von der Heide, *Rensselaer County Economic Development and Planning - Rensselaer County* (Alternate)
Thomas Wood, *Town of Saratoga - Saratoga County* (Alternate)

CAG Liaisons

Danielle Adams, *Ecology and Environment, Inc. - Hudson River Field Office*
Michael Cheplowitz, *USEPA – Region 2*
Elizabeth Cooper, *Consensus Building Institute - CAG Facilitator*
John Davis, *NYS Office of the Attorney General - NYS Department of Justice*
Susan Edwards, *NYS Department of Environmental Conservation*
Kevin Farrar, *NYS Department of Environmental Conservation*
John Fazzolari, *Ecology and Environment, Inc.*
Ona Ferguson, *Consensus Building Institute - CAG Facilitator*
Andy Kitzmann, *Eerie Canalways - National Park Service*
Gary Klawinski, *USEPA - Region 2*
Tegan Kondak, *Ecology and Environment, Inc.*
Bill Richmond, *Behan Communications - General Electric*
Larisa Romanowski, *USEPA - Region 2*

Others

John Armitage, *NYS DEC-DER*
Charlotte Bethony, *NYS Department of Health*
Keshia Clukey, *Bloomberg Law*
Gwendolyn Craig, *The Post-Star*
Carli Fraccarolli, *Scenic Hudson*
Ed Garvey, *WSP/Louis Berger*
Alana Gerus, *NYS Department of Health*
George Goodwin
Kevin Gunter, *NYS Department of Environmental Conservation*
Brittany Haner, *NYS Office of the Attorney General*
Jason Johnson, *NYS DEC-DER*
Jess La Clair, *NYS DEC-DER*
George Lukert, *E&E*
James Moore, *NYS Office of the Attorney General*
Michael Ostrander, *Congresswoman Elise Stefanik*
Jan Peterson, *resident in Fort Miller on river*
Mike Traynor, *WSP/Louis Berger*
Audrey Van Genechten, *NYS Department of Health - Hudson River Fish Advisory Outreach*