



April 18, 2003

Dear Peconic River Working Group:

This letter recalls highlights from our February 25 meeting.

HIGHLIGHTS FROM OUR FEBRUARY 25, 2003 MEETING

Present: Terry Sullivan, Tim Green, Denise Speizio, Skip Medeiros, Tom Talbot, Siva Kumar, Ken White, Jen Clodius, Tim Green, Ron Paulsen, Lloyd Nelson, John Carter, Kevin Shaw, Keith Grigoletto.

Ken White, community relations, opened the meeting by noting the final state of the risk assessment and asking the working group whether any concerns remained on the document.

- Two of the working group members reported that they still had big concerns on the risk assessment and were preparing a formal response to be delivered at the next CAC meeting.
 - One of the concerns was that biomass and fish population studies are currently underway at a time when the risk assessment is supposed to be closed. Skip Medeiros, Group Leader for Peconic River cleanup, explained that the two studies exist to help define the remedial design, and would not impact the risk assessment. In addition, the robustness of the risk assessment with its various scenarios enables individuals to contrast the study's information with the risk assessment data.
 - Another concern about the risk assessment focused on the document's reference to establishing remedial action objectives, a reference that was thought to be premature. It was explained that the recommendation does not imply a cleanup, but rather a need to further evaluate what actions would be appropriate. The spectrum of actions could be anything from monitoring to full contaminant removal. The determination of an appropriate action is the next step in the process. The next step would involve the use of risk assessment information as well as other types of information to formulate alternatives that satisfy the CERCLA criteria.
 - The expression "no action" as referenced in the risk assessment misled some readers. The "no action" alternative is a requirement of the CERCLA process and helps establish a baseline by which other cleanup alternatives are compared. Furthermore, while the "no action" alternative means no physical digging, long-term monitoring is part of the "no action" alternative, and if selected, would help ensure that the remedy is effective.

Next, Terry Sullivan, a researcher assisting the project team, delivered a presentation on the methyl mercury content of river sediment. Methyl mercury is the bio-available form of mercury and was collected as part of a study in 2001.

- Terry noted that nationwide sediment samples from uncontaminated rivers and streams ranged from 30–800 parts per billion of mercury. In the Long Island sound, the concentration of mercury in sediment was 80 parts per billion. In tap water, the mercury concentration ranged from 0.3–20 parts per billion.
- Mercury enters the water column from deposition from the atmosphere and transport of sediment particles from run-off. Mercury enters the water column in a form that is not readily bioavailable. In the water column and sediment, mercury interacts with bacteria to produce methyl mercury,

which is bioavailable. The mercury that is deposited directly to the water column, reactive gaseous mercury, is very reactive and tends to stick to particles. Mercury is constantly being recycled in the environment.

- In the Peconic River sediment, the concentration of mercury varies considerably depending upon the area. The highest was in Area “D.” One of the working group members recalled a hot-spot of 60 parts per million and asked where it was located. Although Skip was unable to recall the details of the particular sampling point, he said that he would double check and report back on the location.
- One of the members asked whether the working group could get the methyl mercury values at all the sampling points. Terry explained that methyl mercury concentrations are less than 1.0% of the total mercury. Although the Peconic River sediment has high “total mercury,” the concentrations are much less in percent of methyl mercury than is typically found. Regardless, the total methyl mercury content is elevated above nominal values. This condition has been observed in a number of other areas with high total mercury content.
- To become bio-available, mercury first needs a reaction with the algae and/or bacteria. For that reason, as another working group member noted, the methylation is somewhat seasonal with peaks in spring with the onset of increased growth rates.
- The project team intends to collect samples three times this year to evaluate methyl mercury concentration. A working group member asked about the time lag to achieve methylation. Terry responded by saying that the reaction is an ongoing process that is influenced by other factors such as the dissolved oxygen content, the presence of bacteria, temperature, etc. One of the working group members asked if a situation could occur that would result in a large release of methyl mercury. Terry answered by saying there would have to be a significant change in the river system. Unless this were to occur, methylation rates are likely to follow the cyclical patterns based on season.
- It was suggested by a CAC OUV subcommittee member that this presentation be given to the full CAC membership.

Next, Skip spoke about the implications of various levels of hypothetical sediment removal. The presentation demonstrated how the selection of certain areas for sediment removal could drastically change the amount of sediment removed, the percentage of contaminants removed in that sediment, the impact to upland and wetland areas, and the cost of achieving the cleanup. Skip referenced a chart comparing different scenarios with varying percent removal of contaminants with sediments taken from a variety of locations with differing contaminant concentrations.

- Skip noted that as we formulate different variations in trying to reach reasonable alternatives for cleanup, understanding important concerns of the working group membership would be valuable. Skip then invited working group members to provide their specific concerns:
 - Working group concerns included the following:
 - The remarkable difference based on where you go and what spots are selected was noted
 - Roads—how much damage would occur due to the addition of access roads
 - Time—the duration of the work
 - Environmental effects—both to wetland and upland areas
 - Ecological, endangered species (e.g., banded sunfish)—would they somehow be protected or re-established in the area
 - Benthic invertebrates and the length of time to re-establish the community. As noted by one working-group member, “we might have endangered benthic and not know it.”
 - Effects of topsoil in reconstructed areas
 - Road construction for Pine Barrens and inadequate resources to guard against off-road vehicles

Another concern raised by the working group was that the remedy may be based on political decisions rather than scientific and ecological implications. Another point made by a member was that future land use must also be part of the consideration for the remedy ultimately selected.

The project staff stated that they would consider these issues as possible remedies are formulated.

Bob Conklin then delivered a presentation on fish ladders in Riverhead.

- For years, people have been scooping up the Alewife fish from the waterfall in Grangebel Park. In 2000, a fish ladder was installed between the park and the Peconic River enabling the fish to reach spawning grounds. Fish can now get over the dam during spawning season.
- A second ladder is planned for installation to provide additional access through blocked areas of the river leading to a lake area to the southwest.
- Bob explained how the fish ladders work, cited the locations of existing and planned fish ladders on a map, and showed a brief video showing the success of the fish ladder.

OUR NEXT STANDING MEETING

Our April 22nd meeting will be postponed one week to allow for final release and regulatory approval of the fish biomass study. Our next meeting is now tentatively planned for April 29, from 6:30-8:30 pm. On the 29th, we will meet in the Building 51 Conference Room.

PRELIMINARY AGENDA ITEMS FOR THE APRIL 29 MEETING

Our agenda, while still tentative, is expected to include a briefing on the fish biomass study originally conducted by Cornell and later expanded upon by Terry Sullivan. When drafted, it will be communicated in a subsequent email. An evaluation of the sediment trap will also be presented.

VISIT YOUR WEBSITE

The Peconic River Working Group Website can be accessed over the Internet at:
<http://www.bnl.gov/erd/peconic/WorkingGroup/peconicgroup.html>

Thank you for your continued interest and participation in the Peconic River cleanup project. We look forward to seeing you on the 29th.

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