

Technical Subcommittee Preliminary Review
FDR and Contracts
May 16, 2006
(via phone)

Attendees: David King, Gary Klawinski, Doug Garbarini, Dan Watts, Rich Schiafo, Mannajo Greene, Bill Daigle, Bill Ports, Bill Fuchs (NPS), Helen Chernoff (Earthtech), Allen Ellsworth (NPS), Mark Greenberg (EPA), John Henningson (Scenic Hudson), Allison Hess (EPA), John Mulligan (Malcolm Pierney), Erik Kiviat (Hudsonia), Pat Field, Ona Ferguson.

General

- EPA noted that they are gathering internal input from their staff, consultants, and cooperating agencies such as NOAA, so do not yet have any detailed, synthesized comments.
- DEC noted that they are also gathering input, including from staff who have worked on restoration of other remedial sites in NY.
- EPA asked commenters to be as prescriptive as possible in their comments so as to identify clear ways forward.
- EPA noted that the plan is meant to be adaptive.
- EPA noted that the plan considers four types of habitat: river bottom, SAV floating and SAV shoreline, and shoreline.

Issues Other than Habitat

- Want coarser materials taken to the dewatering facility, such as cobble and boulders, to also be covered to reduce volatilization. There is room to do this on the site.

Overall Comments/Reflections

- Overall, the plan appears to be more an engineering document than a habitat restoration document. How much did the team who wrote this know about upper Hudson River ecology?
- Document doesn't make a clear connection between the data collected and the plan laid out.
- Surprised Rich Feldman's work is not cited, since there is so little other work on this area of the river other than GE/EPA's recent efforts.
- There don't appear to be detailed specifications for specific areas other than where items will be planted. How and what will be planted should be part of detailed specifications (*Hudsonia offered to send an example from another site*).

Near Shore Work

- The impacts of shoreline work and shoreline stabilization on habitat restoration should be fully described and evaluated in the FDR or subsequent planning documents
- Because there is not enough sampling data to know the actual extent of dredging, backfill, and capping needed, the amount of habitat replacement needed is also unknown. The method used to determine the amount of habitat replacement required should be generally described in the FDR and the specific details on how the amount of habitat replacement will be determined should be fully described in a subsequent plan or report subject to public review. Proposed limits on the amount of available fill should not be a determining factor in the amount or type of habitat.
- replacement required There is likely to be a lot of organic matter near shore, which tends to have higher concentrations of PCBs. Given this, to not have sufficient data is of concern for both clean up and restoration.
- EPA noted that they are seeking to have GE, or if necessary, themselves, gather more data near shore this field season in Phase I and Phase II areas (summer 06). EPA is committed to doing this, but does not have agreement yet on how this will proceed.
- EPA noted that it took some 14 or more years to complete the reassessment and reach a decision on dredging. Though more data would be ideal, over 50,000 samples have been collected during the project design to date; rather than delay the design, EPA believes that it is important to move the project forward based on this data, and feels comfortable doing so.

Modeling

- Concern that much of the habitat restoration plan is based on modeling. These models are overly simplistic and it is easy to have embedded unintended assumptions in the model which reduce its predictive capacity. Much better to base a habitat restoration plan on actual field data.
- Data provides such accurate information as “at what depth do certain species grow in this river,” and “how much organic matter is in the soil.”
- EPA noted that the plan is to have structural and biological measures of success, and not just modeling. These are spelled out in the Consent Decree.

Planting Lists and Revegetation

- They include invasive species.
- They propose wild rice, which is unlikely to persist.
- They note using seed mixers for species that have spores, not seeds.
- They recommend planting submerged aquatic vegetation (SAV) at depths of up to 9 feet. Yet it is unlikely that these would survive at more than 3 to 4 feet.

- Why couldn't you remove and replant at least some existing vegetation? Couldn't PCB contamination be washed from the plants? The plants would then be native, have the local genetics to be highly adaptive to this area, yes?
- How many attempted replantings are sufficient to indicate success or failure? Isn't the alternative if replanting fails to recreate or mitigate elsewhere? Failure at one area shouldn't be an excuse to do nothing else but try.

Process

- A remedial action workplan will be required of the contractor, once on board, for this work. In addition, there will be annual habitat reports after that.
- The specs say that GE can make substitutions in plant kinds upon approval of a field supervisor. That supervisor should be a botanist or restoration ecologist, since others will not know the implications of their decision.
- The plan now states that if the dredging leads to a change in habitat depth (say to deeper, bottom conditions), GE may leave the area as unconsolidated river bottom at their discretion. This is of concern because this could allow the dredging to reduce the SAV habitat substantially in some areas.
- The plan also states that the alteration of bathometric conditions is separate from the adaptive habitat restoration plan. Since, in fact, substrate and depth are essential components of a habitat, does this make sense?

Monitoring

- The expectation is that monitoring will have to occur at least two years after success criteria have been met, but not to exceed 20. There is no minimum monitoring time set since ecological conditions and recovery can vary so much.
- Reference sites have been established to monitor for changes that may not be due to the work and restoration itself.
- Important to have longer monitoring time for habitat restoration. For example, many species of SAV spread vegetatively, not via seed. Their populations can decline slowly, over time, and not all at once. The wrong plants planted in the wrong conditions can appear to survive for some years before declining and dying off.
- Is biomass a good measure of invasive species? Thousands of young invasive plants might have a low biomass but pose a future very large problem.