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HUDSON RIVER PCBs SITE
REASSESSMENT RI/FS

TAMS has proposed that the following sampling be initiated during late-Summer to early-Fall 1991, in order to keep the Reassessment RI/FS on schedule. EPA has not yet endorsed this sampling plan, and would like the input of the Scientific and Technical Committee on this proposed sampling scheme.

PROPOSED PHASE 2A SAMPLING

1. **Remote Sensing Geophysical Surveys**

   - High resolution side scan Sonar and bathymetric surveys will be conducted in the Thompson Island Pool, Bakers Falls Pool, and the lower 20 hot spots as defined by the NYSDEC to determine sediment textures and river bottom topography.

   - Areas to be sampled for high resolution cores (see below) will be surveyed to determine sediment textures and aid in core interpretation.

   - Sub-bottom profiler survey of the above areas to delineate sediment thickness to estimate contaminated sediment mass.

   - Maps of river sediment texture and bathymetry will be constructed from data from three preceding items.

2. **High Resolution Coring**

   - 11 locations in the Upper Hudson, 12 in the Lower Hudson

   - Cores collected in the Upper and Lower Hudson will be done by hand coring techniques. If absolutely necessary, other techniques to be used to obtain cores are: gravity coring, piston coring, and "Vibracoring".

   - Cores will be sectioned into 2 cm layers for the uppermost 8 cm, and then 4 cm layers for the remainder of the core.

   - Layers will be dried and analyzed for radionuclides (^{137}Cs, ^{7}Be, and ^{60}Co) to determine if the core yields an interpretable chronology. If a core does not yield and interpretable chronology, another core will be taken from nearby the original location to replace the first core.

   - Cores yielding interpretable chronologies will be analyzed for PCBs. PCB analysis will be congener specific. In addition, total organic carbon, total organic nitrogen and grain size distribution will be analyzed.

3. **Water Column Monitoring**

- Water sampling will be conducted at 10 locations, from Glens Falls to Waterford, on at least 7 different occasions.

- Four events will coincide with low flow conditions (< 8,000 cfs) and three events will coincide with high flow events (> 8,000 cfs).

- Water and suspended matter taken at each location will be analyzed for PCBs on a congener specific basis. Dissolved organic carbon and total suspended solids will also be analyzed.

- A 1-liter sample will be analyzed by a NYSDEC methodology, which has been concurred on by USEPA Region II, which attains lower detection limits than current CLP methods.

- A 20-liter sample will also be taken at each location. EPA Region II does not at this time recognize an acceptable procedure for the analysis of a 20-liter sample, but the information provided by such a sample will allow for a comparison of the relative fraction of soluble PCBs versus the fraction associated with suspended sediment.

- Samples will be collected from north to south so as to generally follow the same parcel of water through the Upper Hudson River.

4. **Low Resolution Coring**

- Five hot-spots (three within the Thompson Island Pool, and two below) and the Bakers Falls Pool will be sampled.

- Ten to twenty sediment core samples will be collected for each hot spot survey. It is expected that "Vibracoring" will be used for the sample collection.

- The sample should obtain 15-inches of sediment from each core, which will be sliced into three 5-inch sections.

- The sections will be analyzed for PCBs on a congener specific basis, as well as Total organic carbon, total organic nitrogen, and grain size distribution.

- ^{137}Cs dating will be performed on the sections.

5. **Low Resolution Coring for Confirmation of Remote Sensing**

- 30 to 50 cores will be collected based on the recommendations of the remote sensing surveys.

- Cores to be analyzed in same fashion as other low resolution cores.

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REASSESSMENT RI/FS

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