TAMS

INTEROFFICE CORRESPONDENCE

To	Bruce Fidler	Location	Bloomfield, NJ	Date	January 17, 2001
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Subject	Sediment Transfer and Processing Sites	Reference	Hudson River PCBs Reassessment FS		

A landside inspection of sites that could potentially serve as transfer points for dredged river sediments was conducted on November 5, 1999 (J. Szeligowski) and October 28, 1999 (B. Larsen & L. Thai). The sites would be locations where river sediments would be removed from barges and processed on land prior to being hauled to an ultimate disposal site. Before initiating the landside survey some general criteria had to be established so that the effort would be focused.

The river reach within which PCB *hot spots* occur is about 40 miles long. Given the length of river involved, it would be logical to identify at least two potential transfer locations; one near the north section of the work area and the other located to the south. In addition, there would be some value in selecting transfer sites such that loaded barges would generally move downstream and empty barges would return upstream. Finally, given the length of the Thompson Island Pool, the extent of contamination occurring there, and its position at the northern limits of the remediation area, one of the transfer and processing facilities should be situated within the Thompson Island Pool, if possible.

The principal characteristics of a good transfer site appear to be the following:

- **Shoreline**: The immediate river bank area should have good water access or be easily dredged to provide good access for barges and other floating equipment. The immediate upland area should optimally not be elevated more than 5 to 10 feet above water level to facilitate transfer of dredged material and other operations. If a bulkhead does not already exist at a particular location, then subsurface conditions should lend themselves to construction of a bulkhead wall and/or a dock. It would be preferable to find a shoreline reach where a heavy duty bulkhead already exists.

- **Landside**: The property selected for transfer operations should not have excessive topographic relief so that transfer operations, material processing, and rail/truck facilities are situated at approximately the same elevation. It would be preferable to select an industrial site so as to avoid impacting residential, recreational, and institutional land uses.

- **Roadway Access**: Transfer locations should have good roadway access for construction equipment, employees, and for hauling of processed river sediments. If trucking of processed river sediments can be avoided, the requirement for roadway access is reduced. Roadways that connect the site should optimally avoid densely populated residential communities and should either be two lane truck routes or connect directly to such routes.

- **Rail Access**: It is highly preferred to identify sites with good rail access. This will avoid the need

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to haul sediments out by truck and probably reduce the overall cost of transportation because of the relatively large loads that can be moved by rail.

- **Site Area:** Until we have spoken to the railroads (probably CSX and CP) regarding possible off-site car storage, it is preferable to look for sites that have an area of at least 30 acres. Sites of this scale will allow development of a rail yard for storing about 50-60 cars and also leave room for both waterfront transfer facilities and sediment processing facilities. However, smaller sites should also be evaluated as it may be possible to use existing rail yard facilities which are located off-site for car storage purposes.

With the above in mind, the river shoreline was visually inspected from Fort Edward to Albany using publically accessible vantage points. Both east and west banks were covered, though in many instances one side was observed from the other. Visual inspection and consideration of potential facility locations were performed on a technical basis only; no attempt was made at this time to confirm availablity of properties considered. Findings are as follows:

Moreau Landfill Site Area (Site E)

Location - On the west bank opposite Rogers Island, this location could serve as a transfer station for sediments removed from the Thompson Island Pool. Using this location would mean that loaded barges would move against the river current.

Shoreline - The northern half of the shoreline in this area rises sharply from the river and forms a natural bench about 15 to 20 feet above water level. Farther south, where a private marina operates, the immediate upland area is probably less than 10 feet above water level. An area immediately north of the marina presents excellent potential for a waterfront site. While it would appear to be possible to develop good waterside access to this location farther north, given the rather steep relief and the possibility of the presence of shallow rock, development of a barge basin and construction of a docking facility could entail somewhat greater engineering requirements and cost than near the marina.

Landside - It appears that 30 or more acres of land would be available at this location to develop into a processing and transfer operation if it is assumed that the landfill, private marina, and spoil disposal area could be used. The rail line at this location is about 40-50 feet above river level; this will generate several design issues related to arranging an on-site rail yard and delivering processed sediments to the rail facility. Also, the New Moreau landfill occupies much of the available area and may not be suitable for regrading. The Old Moreau Landfill area could potentially be utilized if backfill were imported and graded to provide a suitable load-bearing base. It is possible that an area located between the old and new landfills presents a site with both a sufficiently large area and with suitable soil conditions. The area is not highly developed and its use should not create significant conflicts with residential, recreational, and institutional uses.

Rail Access - A rail connection is available at this location (CP). Contact would have to be made with the operator to determine the type of activity currently occurring on the rail line and to generate an operating scenario for the proposed rail yard.

Roadway Access - Roadway access is available via Route 197. While this road can be expected to accommodate construction traffic and employee commutation, it is likely that it would need to be upgraded in order to handle the volume of traffic that would be generated if river sediments were trucked to final disposal sites.

Rogers Island

Location - The south end of Rogers Island could be considered for transfer operations associated with handling sediments removed from the Thompson Island Pool. As is the case with the Moreau site, using Rogers Island would mean that loaded barges would move against river currents.

Shoreline - Rogers Island has good access from the river. The south end of the Island is flat and probably less than 10 feet above river level. It would be necessary to dredge a barge basin and construct waterfront facilities before transfer operations could be initiated at this location. The island appears to present somewhat fewer physical problems to waterfront development than does the Moreau site.

Landside - It is expected that less than 30 acres useable area is available on the island; thus operations, particularly rail operations, would be less than optimal. The site is flat but elongated and this geometry may also impact efficiency. The south end of the island is cut off from the small residential area to the north by the railroad embankment. However, the south end appears to be privately held, in part, and to support some passive recreational use. In addition, use of this site may present a number of hurdles as much of the island is currently undergoing some form of commercial development or contains areas of historical/archaeological significance.

Rail Access - The rail line crosses Rogers Island on an embankment and a spur would have to be constructed to bring rail service onto the island. While this appears to be technically feasible, discussions with the railroad would be needed to confirm the feasibility of extending a rail link onto the island. Rail operations could increase noise levels for the island's northern residential community. Engineering development of a rail yard should not pose significant problems since the site area is flat; soil bearing capacity would need to be confirmed.

Road Access - Route 197 crosses the island and passes through the residential community. I. .s not expected that sediments could be hauled off the island via this roadway given the proximity of the residential area to all existing points of vehicular access. Also, it is likely that potential disruptions to nearby residences from construction and worker traffic associated with the river transfer facility would require mitigation measures.

Thompson Island Dam to Lock No. 6 (Fort Miller)

No obvious locations for a transfer facility were identified in this section of the River from the water side during the debris survey on 11/4/99 or on 11/5/99 during shoreline inspection. Along the west bank there is a section of shoreline where a bulkhead and /or dock could be constructed. However, there is no rail line in the area and road access is limited to a county road. In order to construct a materials handling operation, non-commercial land would have to be acquired and some relocation of the county road could be necessary.

The east bank is largely cut off from the river by the canal. It would be possible to establish waterfront operations on the river side of the canal cut; however, no rail line is available and roadways would need to be upgraded to support significant truck movements. It is recommended that possible locations in this section of the river be reconsidered only if other viable locations are not found. Depending on the means of dredging employed in this section of the river, which is not directly accessible by boat from other areas, it may be necessary to establish temporary sediment transfer capabilities across the narrow strip of land between the river and the canal land cut with processing performed elsewhere.

Village or Hamlet of Thomson

Location - This site is on the east bank and could serve as a transfer facility for sediments removed between Lock No. 6 and Lock No.5. In general loaded barges would move downstream if this location proved viable.

Shoreline - From the opposite shore it appears that a bulkhead wall already exists at this location and that some materials handling activities had occurred here historically. The site apparently supported hydro-power generation; the power output may have been used by an on-site industrial facility. Since a bulkhead already exists here, waterfront development becomes less of an issue at this location even if the waterfront structures need to be rebuilt. An engineering and operational consideration for this location is its proximity to the Lock No. 5 dam.

Landside - The site appears to provide only half the land area considered optimal from an overall operating standpoint. Several residences (2 or 3) are on the site and appear to have been associated with the former industrial complex. The proximity of the small residential area of Thomson to potential sediment transfer/processing operations would require consideration in design and operation. In order to take full advantage of available space, the canal leading to the former power complex would have to be filled.

Rail Access - The site had historical rail access, though the rail line now appears to be abandoned. It is not clear if the entire line has been abandoned or only the spur leading to the site. Given the limited available area, rail operations would be highly constrained if they could be re-instituted.

Road Access - While the distance to Route 4 is relatively short, the county road that connects with Route 4 probably would need to be upgraded to support the frequent truck movements that would occur if rail access were not available. Construction and employee traffic would have to be carefully planned if this location were to be used for sediment transfer.

Mechanicville Sites

The Mechanicville area appears to have some potential for siting a sediment transfer facility because the town had been a secondary industrial center (some industry still active). Several large rail yards existed here at one time; these are now being converted to warehousing and other uses. Two areas were investigated: on the north side of town the active NYSEG power plant and on the south side the active American Tissue complex. As noted above, only technical considerations are reflected in this discussion; no attempt to determine availability of the properties was made.

It is difficult to reach conclusions on the NYSEG site because access is limited. It sits astride the Lock No.5 dam and appears to no longer have rail access (historically rail ran onto the property). The site is also largely developed with generating facilities but an area north of the generating complex may have some potential for development, depending on rail access.

The American Tissue Company property, situated on the south side of town in the vicinity of *Hot Spots* 39 and 40, is also largely developed but does show some unused land. The site is served by an active rail spur and appears to have good access to the river. The principal constraint at this location is the very limited space that would be available for sediment transfer and processing operations.

Schaghticoke

Location - The north side of town, on the east bank where the rail bridge crosses the Hudson could be considered for transfer operations associated with handling sediments removed from the southern portion of the river. Potential sites exist both north and south of the bridge crossing.

Shoreline - Areas both north and south of the bridge appear to have good river access. There appears to be considerable vegetation in both areas down to the river's edge. Shoreline conditions related to constructing a receiving dock would need to be confirmed.

Landside - There may be 30 acres of useable land at either the north or south sites but this would need to be confirmed by survey; one reason for the uncertainty is that both sites slope noticeably toward the river (perhaps 5-10% slope). There are a several nearby residences that would need to be considered in design and operation of a facility.

Rail Access - Rail access to the site could potentially be obtained with a spur off the main line to the north or to the south. However, it would be necessary to confirm the fact that suitable rail geometry could be attained by a new rail spur. Also, given the site's sloping topography (with no visible flat areas), development of an on-site rail yard presents engineering challenges.

Road Access - Roadway access is available via River Road. This road could be expected to adequately handle construction and employee traffic, however, there are likely to be several constraints to movement of sediment by truck should rail not be available. For example, the roadway underpass below the railroad is narrow (a one lane passage with limited clearance) and could not accommodate a dump truck or tractor trailer without modification.

Waterford

Location - GE properties at Waterford, south of Lock No.1, appear to be extensive. Their west bank properties are on both sides of Route 4 and are south of all 40 *hot spots*. Sediments would therefore move downstream to access the locale.

Shoreline - Given the extent of GE's development, it is expected that the site has a bulkhead though this could not be determined during the inspection.

Landside - While GE's holdings here are extensive, their property is well-developed with industrial facilities. In addition, the limits of the site were not readily discernible during the inspection. Adjoining sites appear to be used by trucking operations; thus, impacts to residences and institutions are not expected if sediment handling occurs here.

Rail Access - GE appears to have rail access to their property on the west side of Route 4. Assuming the rail line here is active, sediment processing could occur at the riverside transfer facility and processed materials could then be hauled by truck across Route 4 to be loaded on trains.

Road Access - Route 4 at this location can support construction and worker activity associated with the sediment processing facility. However, given the distance to the nearest interstate highway, it is not expected that hauling processed sediments to final disposal via Route 4 would be desirable.

Van Shaick Island

Location - On the west bank opposite Troy at the point where the Mohawk discharges into the Hudson, this site is south of all the *hot spots* and north of Federal Dam.

Shoreline - A number of waterfront industries are or were once situated here. Thus, the shoreline is most likely suitable for constructing a bulkhead or dock.

Landside - The island is relatively long and sufficient land is available for development of a sediment transfer and processing operation. A rail corridor separates the industrial waterfront zone from the residential area. It is not expected that sediment transfer and processing would significantly impact residential areas beyond the corridor.

Rail Access - It appears that the rail link to the island is no longer active. The feasibility of initiating rail operations is not known at this time.

Road Access - Road access is adequate for construction and operation of a sediment transfer and processing facility. However, roadways here would probably require upgrading in order to be suitable for hauling sediments to final disposal.

Green Island

The abandoned Ford Motor plant sits astride the Federal Dam at this location. The plant has waterfront access though its proximity to the dam may pose an operational problem. The site is large and almost completely unused. It is not known if rail access could be restored to this location.

South of Federal Dam

South of the dam the Hudson River becomes an estuary. Several cities are located on either side of the river and each supports considerable industrial activity along its waterfront. Potential sites where sediment transfer and processing could occur include Troy (south of the Route 2 bridge), the Port of Rensselaer, and the Port of Albany.

Albany appears to have the most extensive port complex with perhaps several miles of bulkheads, good road access, and on-port rail facilities. Considerable materials handling occurs here including transfer of cement, sand, and gravel. Space also appears to be available for establishing a sediment transfer and processing operation.