Hudson River
PCBs SUPERFUND SITE

Section 6

FACILITY SITING REPORT

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Prepared by:

ecology and environment, inc.
International Specialists in the Environment

6 Selected Sites

This section of the *Facility Siting Report* summarizes the EPA's continuation of site evaluations after the *Draft Facility Siting Report – Public Review Copy* was released and describes the conclusion of the facility siting process: the selection of two sites to be used for sediment processing and/or transfer facilities. The Energy Park/Longe/NYSCC site in Fort Edward and the OG Real Estate site in Bethlehem have been selected as the dewatering and/or transfer sites for the Hudson River PCBs Superfund Project. Specific operations to be performed at each of the sites will be determined after the disposal site(s), transportation methods, and routes have been selected. EPA expects to have more information regarding Phase 1 operations in the spring of 2005, when the intermediate design and transport/disposal contracting have progressed further. Additional information regarding Phase 2 operations will be developed later during the design process.

The Bruno/Brickyard Associates/Alonzo site in the Town of Schaghticoke, the Old Moreau Dredge Spoils Area/NYSCC site in the Town of Moreau, and the NYSCC/Allco/Leyerle site in the Town of Halfmoon will no longer be considered for use as sites for a dewatering/ transfer facility for the project.

These siting evaluations are based primarily on information provided by the public during the public comment period, additional EPA site evaluations (such as cultural resource field investigations), and additional input from the RD (General Electric) Team.

The RD Team's evaluations of the Recommended Sites were conducted to further analyze:

- The potential limitations and additional design considerations, as presented in previous sections in this document; and
- The logistics of moving processed material from a facility to disposal site(s).

Remedial design evaluations are ongoing and some logistical considerations of transportation and disposal have not yet been finalized. However, the RD Team obtained enough information to make recommendations to EPA on site selection. Much of the additional information provided by the RD Team is consistent with that developed by EPA and has further validated the findings of previous rounds

of site investigations (i.e., that sites had particular features or characteristics that could be considered potential limitations and/or design considerations and that appropriate design solutions are possible). Factors such as local traffic, rail access, topography, cultural resources, the logistics of the transportation methods and routes, and how material can be reliably and cost-effectively moved to disposal locations were analyzed in greater detail to determine the relative ease of design, construction, and operation of a sediment processing and/or transfer facility. Other important considerations in selecting sites included the relative ease of meeting the engineering and quality of life performance standards. (See also the *Facility Site Selection Summary* report, which provides an overview of the entire facility siting process and the associated public involvement activities.)

6.1 Selected Sites

Comparison of the Recommended Sites indicates that the Energy Park/Longe/ NYSCC and OG Real Estate sites have the key characteristics needed for the project while having relatively few limitations. Importantly, these two sites appear to have the best set of options for developing efficient and reliable transportation from the processing and/or transfer facilities to the disposal sites. Further intermediate design evaluations have indicated that those factors previously identified as potential limitations or additional design considerations on these sites have been determined to be manageable. Both locations will facilitate optimal design for the safe and successful completion of the project. This Site Selection Summary is not intended to define the facility boundaries for purposes of the Comprehensive Environmental Response, Compensation, and Liability Act's (CERCLA) "on-site" definition.

6.1.1 Energy Park/Longe/NYSCC

The Energy Park/Longe/NYSCC site exhibits many of the key factors for optimizing design and is a particularly good site for this project because it is relatively close to River Section 1, where a large percentage (approximately 59%) of the total volume of sediments that are targeted for dredging are located. In addition, the site is within 12 miles of approximately 80% of the dredged material. Proximity to dredge areas is interrelated with a number of key design and project productivity factors, including duration of transport time from dredge areas to the processing facility, efficiencies of transport and the effect on the number of barges needed (at least in River Section 1), and increased flexibility of dredging approach, given that both mechanical and hydraulic dredging can be used.

Other key factors associated with the Energy Park/Longe/NYSCC site that have been discussed in earlier phases of the facility siting evaluation process and that optimize the design of the facility include available space, level land surface across most of the site, and rail access. Available space includes 104 acres of flat, relatively open land that would provide suitable space for the processing facility and a rail yard as well as sufficient space to develop a buffer between facility operations and the surrounding community.

One of the most important engineering characteristics of the site—sufficient space for a rail yard supports the transportation needs and productivity standard of the project. An existing rail line runs adjacent to the northern boundary of the site for approximately 2,350 feet. This area provides sufficient space to create a rail yard capable of handling the volume of material that will be generated from this project. The rail yard requires a large enough area to:

- Support the transportation of processed dredged sediments to disposal areas by rail;
- Support the import of clean backfill materials for loading onto barges for final placement in the Hudson River;
- Accommodate sufficient numbers of rail cars at the desired intervals so that processed materials may be removed, loaded, and delivered to final destination upon demand;
- Allow rail cars to be sorted by material type or destination before being made up into blocks of cars or whole trains for movement to a final destination; and
- Store spare cars to ensure that there is uninterrupted rail car supply to meet the demands of the dewatering facility.

All the above-listed factors require a large area for the rail operation, and the Energy Park/Longe/NYSCC site provides suitable area and layout for the construction of this type of facility. The physical layout and the rail frontage characteristics of the Energy Park/Longe/NYSCC site support the optimization of the design for a rail yard.

Additionally, the site exhibits fewer environmental characteristics that could complicate the design and construction process. For example, no archaeological sites were discovered, the site is outside the mapped 100- and 500-year floodplains, and there are no significant environmental contamination issues.

Because the property owners of the Energy Park and Longe parcels submitted the properties to EPA for consideration during the Preliminary Candidate Site identification process, EPA anticipates that acquisition/leasing can be successfully negotiated. Because the owners plan to develop this site for industrial use, this project could create an infrastructure for this planned future use.

There are some considerations associated with the Energy Park/Longe/NYSCC site that increase the complexity of design and operation of a processing and/or transfer facility:

- The location of the site on the Champlain Canal, approximately 1.4 miles from the Hudson River, will require lockage through Lock 7.

- The development of a waterfront facility will require a land cut in order to create a berthing area or turning basin, given that the current width of the canal is approximately 150 feet, which limits the number of barges that can be present in the canal without affecting other navigational traffic.

- The Lock 8 access road will have to be relocated or access will have to be modified during the course of the project.

- Constructing the waterfront facility could impact wetlands.

The intermediate design evaluations indicate that these issues can be sufficiently managed through design. Additionally, these issues are not considered impediments that will limit the viability and reliability of the site because the combination of the other site features allow optimization of project design and will support the demands and objectives of the project.

6.1.2 OG Real Estate

The OG Real Estate site also exhibits characteristics that are essential to design and to logistical considerations. OG Real Estate is a vacant industrial site that has ample, relatively flat space for siting, designing, constructing, and operating a sediment processing and rail yard transfer facility. It contains suitable waterfront along the Hudson River, does not have existing conditions that are problematic for facility design or layout, and has road access.

As many in the public have pointed out, this site is more than 40 miles downstream of some of the dredge areas located in River Section 1. Despite this, the RD Team has indicated that moving materials downriver would not adversely affect the project. In addition, because the site is located south of the Federal Dam, the navigation channel is deeper at that point along the river. The deeper navigation channel could facilitate using large, ocean-going ships to transport the processed sediments. Two rail companies service the rail lines adjacent to the OG Real Estate site. This situation, in addition to the possibility of using large ships, provides more options and a greater flexibility that could increase the efficiency of transporting the processed sediments and reduce overall costs. Additionally, because this site is situated in an industrial/commercial corridor near the Port of Albany, impacts on nearby residents would be minimal.

The OG Real Estate site also has direct rail access with relatively long rail frontage (3,370 feet). As noted above, this project requires extensive rail frontage directly adjacent to the processing facility. The OG Real Estate site has sufficient available space and suitable topography that allow optimal design of a rail yard facility. There are also two rail access points: an un-maintained rail spur on-site and the rail line running adjacent to the western boundary of the site. An additional benefit of the site includes the existing road access. State Highway 144 is adjacent and to the west of the site. This highway already serves the Port of Albany area and other commercial and industrial traffic. Direct access to a major highway will limit the potential for disruptions of local community-based traffic.

Additional optimization characteristics at this site include available space for the creation of a buffer between on-site operations and surrounding areas, no cultural resource issues, and future-use possibilities. The landowner has proposed constructing a waterfront marina on-site, and the development of the site for this project could provide some of the infrastructure necessary for the planned future use.

There are some considerations associated with the OG Real Estate site that increase the complexity of design and operation of a dewatering and/or transfer facility:

- The site is located more than 40 miles downstream from a majority of the dredge areas, which means that barges traveling downriver will have to travel through as many as seven locks. The initial investigations by the RD Team during the evaluation of the Final Candidate Sites suggested that, although proximity of a dewatering facility to dredge areas would influence a number of important design components (e.g., hydraulic versus mechanical dredging), distance between dredge areas and facility locations was a factor that could be addressed in project design. Further intermediate design phase evaluations show that the transportation benefits of the site (i.e., serviced by two rail companies, option for using large ships) compare favorably so that downriver barging of materials to the site will allow for design optimization.

- Most of the site is located within the 100-year floodplain. Per Executive Order 11988, Floodplain Management (40 FR 6030), EPA will ensure that measures will be taken to minimize the impacts of floods on human safety, health, and welfare and to restore and preserve the natural and beneficial values served by floodplains. Further evaluations by the RD Team indicate that the design of a sediment processing and/or transfer facility can be accomplished while ensuring that floodplain capacity and function will be maintained. The facility will be designed to accommodate flood flows and ensure that adverse impacts do not occur.

- The Hudson River from the Federal Dam to beyond the river frontage at the OG Real Estate site is a known spawning area for the shortnose sturgeon, a federally listed endangered species. EPA has been consulting with appropriate federal and state agencies regarding the shortnose sturgeon and the bald eagle, the only other identified endangered or threatened species existing in the project area. EPA is developing a Biological Assessment (BA) to evaluate any potential impacts the project may have on threatened or endangered species in the project area. Conservation measures will be developed in the BA to address impacts that may be of concern to the resource agencies.

- Because the OG Real Estate site is within the New York State-designated coastal zone, EPA must assess the impacts from the construction and

operation of the sediment processing/transfer facilities for consistency with the policies of the New York State Coastal Management Program in accordance with the Coastal Zone Management Act.

The intermediate design evaluations indicate that these issues can be sufficiently managed through design. These issues are not considered impediments that will limit the viability and reliability of the site because the combination of the other site features will allow optimization of project design and will support the demands and objectives of the project.

6.2 Eliminated Sites

The Bruno/Brickyard Associates/Alonzo site in the Town of Schaghticoke, the Old Moreau Dredge Spoils Area/NYSCC site in the Town of Moreau, and the NYSCC/Allco/Leyerle site in the Town of Halfmoon will no longer be considered for use as dewatering/transfer facilities.

6.2.1 Bruno/Brickyard Associates/Alonzo

The evaluations of the Recommended Sites identified several design concerns and the Bruno/Brickyard Associates/Alonzo site has therefore been eliminated from further consideration for a sediment processing/transfer facility.

Generally, this site did not compare favorably with the Selected Sites because the site characteristics would have resulted in a more complex design that could complicate site layout and facility operations and could make it more difficult to meet project requirements, including the quality of life and engineering performance standards. Potential limitations and additional design considerations leading to the elimination of the Bruno/Brickyard Associates/Alonzo site are described below. As noted above, some of this information was identified in previous phases of the facility siting process. Now that the intermediate design evaluations are occurring, the relative complexity of these issues suggests that these factors would restrict design optimization and could constrain site operations.

Potential Limitations of the Bruno/Brickyard Associates/Alonzo Site:

- **Traffic Congestion in the Area of the Site.** There are some complexities associated with road design at the Bruno/Brickyard Associates/Alonzo site. Maintaining current free flow conditions for use by local traffic would be challenging at the site. Traffic congestion conditions occur along NY State Route 67 when rail-crossing barriers close for a passing train. Moreover, the intersection of Route 67 and Main Street in Mechanicville is already congested during peak traffic times. The ability of local roads to handle the increased use and weight loads that would arise from project-related traffic and the potential need for upgrades and repair of those roads were additional considerations.

- **Traffic and Transportation Issues Associated with Knickerbocker Road.** Knickerbocker Road bisects the Bruno/Brickyard Associates/Alonzo site. The road is used as an alternate route for emergency vehicles when trains cross Route 67, and the road is also a school bus route. It is expected that project materials, personnel, and equipment would have to cross Knickerbocker Road during the course of normal facility operations. It is anticipated that such movements of equipment and materials could lead to temporary interferences with local traffic. The need to avoid even temporary closures of Knickerbocker Road is an additional element of complexity for the design of a facility at this site and an impediment to site operations.

  There are also safety concerns regarding the use of Knickerbocker Road for local pedestrian and recreational traffic from the Mechanicville Golf Club. Facility design would have to provide safe travel for pedestrians through this area and would have to account for methods of protecting the safety of people crossing the road in golf carts and on foot (course play does cross the road). These conditions would be additional impediments to site operations and schedules and would increase the complexity of facility design.

- **Cultural Resources Concerns.** Phase IB and Phase II investigations have been completed on the site. The results of the cultural resource investigations indicate that the location and extent of archaeological resources on-site would require extensive mitigation and possibly the need to avoid some areas. The findings of the fieldwork suggest that the potential exists for further investigation and curation, which could impact the project schedule. The locations of the discovered cultural resources make complete avoidance of these areas difficult, affecting the facility design and layout. Concerns regarding the presence of cultural resources on-site and the associated impacts on the project schedule are limiting factors associated with this site.

  In addition, the Mechanicville Golf Club, the work of Devereaux Emmet, a prominent and prolific American golf course architect of the late nineteenth and early twentieth centuries, may be eligible for listing on the National Register of Historic Places (NRHP). The qualities that may make the golf course historic include the design and workmanship of the individual holes as well as the overall historic setting and player experience.

- **Topography.** The Bruno/Brickyard Associates/Alonzo site's hilly topography is less desirable for facility design and construction. While the slope from the waterfront to east of Knickerbocker Road and from the Bruno and Brickyard Associates properties to the existing rail line could be achieved through appropriate grading design, the elevation difference is an additional design consideration. On-site topographic characteristics increase the complexity of designing rail access, the rail yard, and the transfer of material across the site.

- **Rail Service.** The Guilford Rail System provides service to the site. The RD Team evaluated the transportation methods and routes for each of the Recommended Sites. The results of the evaluation indicated that the rail company providing service to the site has limited track and infrastructure in the project area and that the short-line track may need upgrading for heavier loads for this project. The rail infrastructure and transportation options for the Bruno/Brickyard Associates/Alonzo site do not compare favorably with the rail infrastructure and transportation options of the selected sites.

- **Waterfront River Depth.** The area along the waterfront would require initial navigational dredging and, very likely, routine maintenance dredging to provide suitable depths for barge access. An in-river channel might have to be established for barges and tugs to access the site waterfront. These are both additional design considerations that increase the complexity of the design.

- **Pool Management Relative to River Depths and Low Clearance Under the Nearby Rail Bridge.** The rail bridge located upstream and near the site has a low vertical clearance. Proper clearance under the bridge and the depth of the navigation channel depends on the water level adjustment within the river pool, which is made at the Upper Mechanicville Dam and is controlled by New York State Electric and Gas Corporation. Achieving clearance under the bridge for project vessels and the fluctuation of the pool (i.e., water navigation depth) along the waterfront at the site are additional design considerations that increase the complexity of the design. Although the bridge clearance will be a factor regardless of where the dewatering site is located, this issue would be magnified if the Bruno site were to be selected because it is closer to the bridge than the other two sites.

- **Lock Adjacent to the Site.** Possible vessel congestion along the frontage of the site because it is close to Lock 3 would have to be considered when barging material to and from the site.

- **Proximity to Dredge Material.** The Bruno/Brickyard Associates/Alonzo site is in River Section 3, where about 19% of the material to be dredged is located. The majority of the material (80%) is in the upper part of the River (River Sections 1 and 2). Proximity of a sediment processing/transfer facility to dredge areas would influence a number of important design components, including which dredging method could be used (i.e., hydraulic versus mechanical dredging). The distance between dredge areas and facility locations is a consideration that could complicate transportation logistics and achievement of the engineering productivity performance standards. Unlike the Energy Park/Longe/NYSCC site, this site is too far away from River Section 1 to allow for the possibility of hydraulic dredging. Also, although the site is located in River Section 3, where approximately 19% of the dredging will occur, the Energy Park/Longe/NYSCC site is within 12 miles of approximately 80% of the dredged material.

The Bruno/Brickyard Associates/Alonzo site does not provide the same level and diversity of transportation options (two rail companies and the options of deep-water vessels) as the OG Real Estate site. The barge in/barge out option does not compare favorably with the OG Real Estate site because deep-water vessels are able to transport greater volumes of material per vessel.

6.2.2 Other Suitable Sites

During the identification of the Recommended Sites, the potential limitations and additional design considerations of the Old Moreau Dredge Spoils Area/NYSCC and NYSCC/Allco/Leyerle sites led to the conclusion that, although suitable, these locations were not best suited for optimizing the design of the project. The site evaluations supporting that conclusion are presented in Section 3.4 and Section 4 of the *Facility Siting Report* (USEPA 2004a). As noted in the *Facility Siting Report,* these sites exhibited a number of potential limitations and additional design considerations that outweighed the potential benefits of the sites. The limitations and design considerations included (but were not limited to) concerns about environmental conditions (e.g., site contamination issues), waterfront suitability, rail yard suitability, geotechnical characteristics, dredge material transfer issues, cultural resources, and wetlands.

Because of these factors and because further evaluations of the Selected Sites indicated that they will allow project design optimization, it has been determined that the Old Moreau Dredge Spoils Area/NYSCC and NYSCC/Allco/Leyerle sites will be eliminated from further consideration as sites for a sediment processing/transfer facility.

6.3 Summary

EPA identified 24 PCSs in June 2003 and, after detailed evaluations, reduced the list to seven FCSs in September 2003. Five of the FCSs were identified as Suitable Sites. The Suitable Sites were examined in terms of key design and logistical considerations, resulting in the selection of three Recommended Sites. The Recommended Sites were further evaluated during intermediate design evaluations conducted by the RD Team and were assessed against additional key project design evaluations (e.g., sediment transportation logistics, material handling, potential alternatives for dredging) and with regard to input provided by the public over the course of the public comment period on the *Draft Facility Siting Document – Public Review Copy*. Evaluation of the Recommended Sites led to identifying Energy Park/Longe/NYSCC and OG Real Estate as the Selected Sites that will be used for the dredging project.

The selection of sites for use as sediment processing and/or transfer facilities represents the final step in the facility siting process. As indicated at the beginning of this section, EPA expects to have more information regarding Phase 1 operations in the spring of 2005, when the intermediate design and transport/disposal contracting have progressed further.