
Executive Summary

FACILITY SITING REPORT

DECEMBER 2004

Prepared for:



United States Army
Corps of Engineers



United States Environmental
Protection Agency

Prepared by:



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Executive Summary

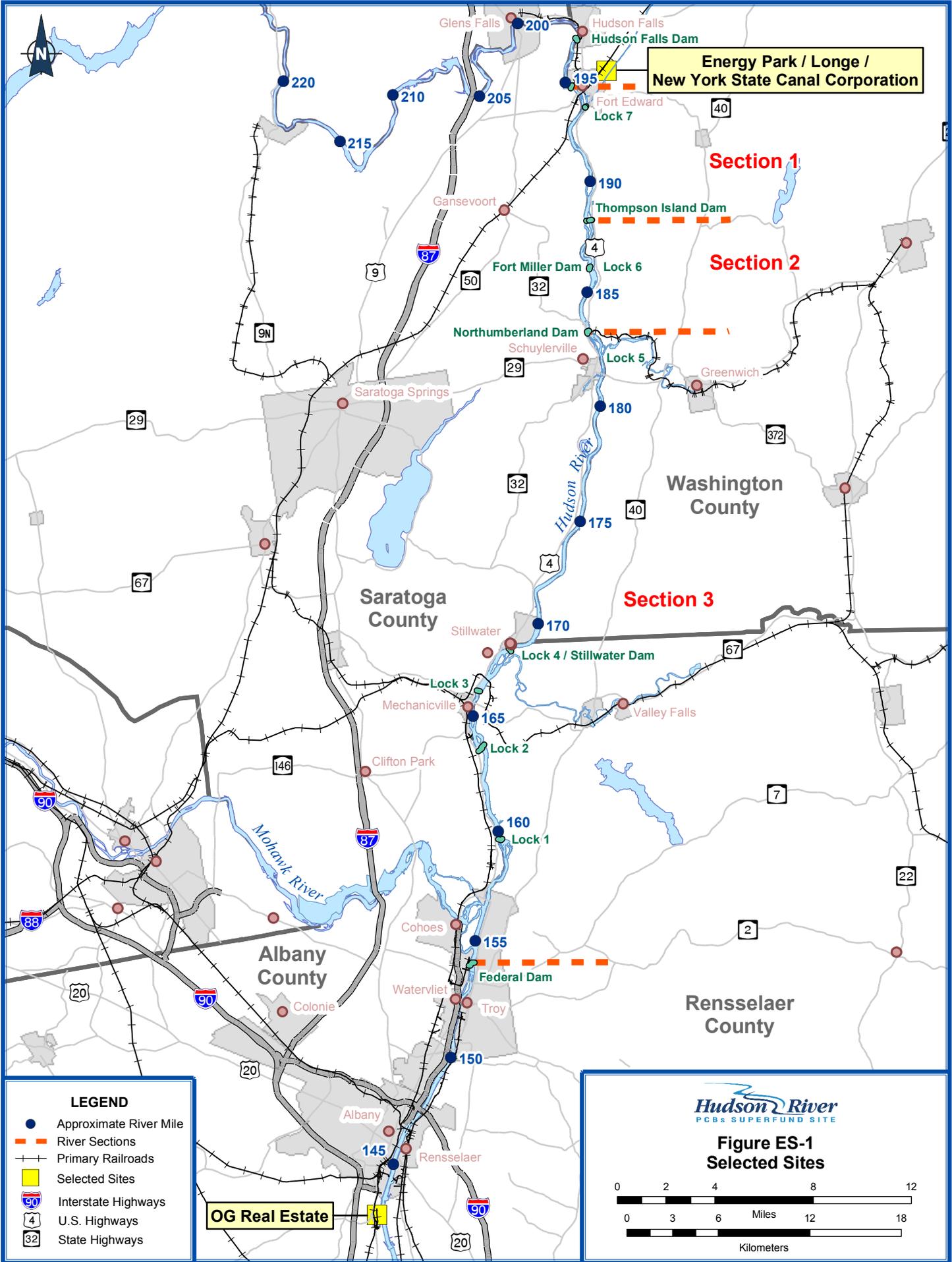
The U.S. Environmental Protection Agency (EPA) released the *Draft Facility Siting Report – Public Review Copy* for public review and comment on April 28, 2004. The 90-day public comment period began on April 28, 2004, and ended on July 30, 2004. The revisions in this report, the final version of the *Draft Facility Siting Report*, are based upon additional information received from General Electric (the Remedial Design [RD] Team), further investigations conducted after the release of the draft report, and comments received during the public comment period. This information was also used to complete the final step in the facility siting process, the identification of the Selected Sites.

EPA has selected the Energy Park/Longe/New York State Canal Corporation (NYSCC) site in Fort Edward and the OG Real Estate site in Bethlehem as the processing/transfer sites for implementing the remedy for the Site. Table ES-1 and Figure ES-1 highlight the Selected Sites.

Table ES-1 Selected Sites

River Sections/Site Name	Location	Approximate River Mile
Above River Section 1		
Energy Park/Longe/New York State Canal Corporation (NYSCC)	Fort Edward, Washington County	195.1
Below River Section 3		
OG Real Estate	Bethlehem, Albany County	142.8

The specific operations to be performed at each site have not yet been finalized: Phase 1 operations 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 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 processing/ transfer facility for the project.

Since the release of the *Draft Facility Siting Report – Public Review Copy*, the RD Team has continued its intermediate design-phase evaluations of the Recommended Sites. Evaluations of the sites were conducted to further analyze:

- Potential limitations and additional design considerations, and
- The logistics of moving processed material from a facility to a disposal site(s).

Along with information obtained through public comment and additional field investigations, EPA's siting selection relied on findings by the RD Team. The RD Team evaluations considered the relative benefits of the Selected Sites compared with the eliminated sites and the relative ease or difficulty of meeting the engineering and quality of life performance standards. As part of the progress on the overall design, the RD Team has further analyzed the information found in the *Draft Facility Siting Report* regarding each site's characteristics. The relative impact of each of the many interdependent factors (such as rail access, topography, local traffic issues, and sensitive and cultural resources) on the safe and efficient design, construction, and operation of a sediment processing/transfer facility has been considered. The RD Team has also incorporated information regarding the logistics of the transportation methods and routes for moving material reliably and cost-effectively to disposal locations.

The Selected Sites were identified from a list of 24 Preliminary Candidate Sites (PCSs) that was released in June 2003. In September 2003, the list of 24 PCSs was narrowed down to seven Final Candidate Sites (FCSs). In April 2004, EPA identified five FCSs that were suitable for use as a processing/transfer facility and recommended that three of the five sites be carried forward in the design process. From those three remaining Recommended Sites, EPA has selected two sites for use as processing/transfer facility locations. Table ES-2 highlights the site selection process from the original list of Preliminary Candidate Sites through the final site selection.

This *Facility Siting Report* provides an overview of the facility siting process and addresses the substantive comments that were received during the public review period. The report summarizes the earlier phases of the facility siting process (for which separate reports have been issued) and documents the phases subsequent to the identification of the PCSs. This report also summarizes the community involvement process related to facility siting, the rationale used to screen and evaluate the PCSs and FCSs, the identification of the Suitable and Recommended Sites, and the evaluation of the Recommended Sites to determine the Selected Sites.

Table ES-2 Final Status of Candidate Sites

Name	Location	PCS (6/03)	FCS (9/03)	Suitable (4/04)	Recommended (4/04)	Selected (12/04)
River Section 1						
Energy Park/ NYSCC/Longe	Fort Edward, Washington Co.	X	X	X	X	X
Old Moreau Dredge Spoils Area	Moreau, Saratoga Co.	X	X	X		
State of New York (A)	Moreau, Saratoga Co.	X				
River Section 2						
Georgia Pacific/ NYSCC	Greenwich, Washington Co.	X	X			
River Section 3						
Bruno/Brickyard Associates/Alonzo	Schaghticoke, Rensselaer Co.	X	X	X	X	
Edison Paving	Schaghticoke, Rensselaer Co.	X				
NiMo Mechanicville	Halfmoon, Rensselaer Co.	X				
NYS Canal Corporation/Allco/Leyerle	Halfmoon, Rensselaer Co.	X	X	X		
General Electric (C)	Waterford, Saratoga Co.	X				
Green Island IDA	Green Island, Albany Co.	X				
Below River Section 3						
Troy Slag/Rensselaer IDA	Troy, Rensselaer Co.	X				
Callanan/Rensselaer IDA/City of Troy/ King Services	Troy, Rensselaer Co.	X				
Town of North Greenbush	N. Greenbush, Rensselaer Co.	X				
Rensselaer Tech Park (A)	Rensselaer, Rensselaer Co.	X				
Rensselaer Tech Park (B)	Rensselaer, Rensselaer Co.	X				
State of New York/ First Rensselaer/ Marine Management	Rensselaer, Rensselaer Co.	X	X			
Albany Rensselaer Port District /BASF	Rensselaer, Rensselaer Co.	X				
Bray Energy	Rensselaer, Rensselaer Co.	X				
Bray Energy/Petrol/ Gorman/ Transmontaigne	Rensselaer, Rensselaer Co.	X				
Norwest	E. Greenbush, Rensselaer Co.	X				
OG Real Estate	Bethlehem, Albany Co.	X	X	X	X	X
P & M Brickyard	Coeymans, Albany Co.	X				

In addition to the release of this report, a *Summary of Public Comments and Responses* document that addresses the public issues/concerns raised during the public review period has been released. (The *Summary of Public Comments and Responses* is also included in this report as Appendix C.) In addition, EPA is providing written responses to those individuals who provided comments to EPA in writing.

Information regarding the selection of sites is also provided in the *Facility Site Selection Summary* report, which provides an overview of the entire facility siting process and the associated public involvement activities.

Background

In February 2002, the EPA issued a Record of Decision (ROD) for the Hudson River PCBs Superfund Site. The ROD calls for the targeted environmental dredging of approximately 2.65 million cubic yards of PCB-contaminated sediment from the Upper Hudson River (approximately 40 river miles) in two phases over a six-year period.

The purpose of the facility siting process was to identify locations within the study area that met the requirements of a sediment processing/transfer facility. EPA identified locations for facilities that can be used to transfer sediment from the edge of the river to a processing area, process (i.e., dewater) the sediment, treat the water from the dewatering process, and transfer sediment (stabilized as needed) to rail or barge for transport to an off-site disposal facility. These sediment processing/ transfer facilities will be constructed to safely handle the dredged material.

Overview of the Facility Siting Process (Sections 1 and 2)

The *Hudson River PCBs Superfund Site Facility Siting Concept Document* (Concept Document [USEPA December 2002]) identified the major milestones in the facility siting process. These include:

- **Defining Critical Siting Criteria (Engineering, Additional Considerations, and Site-Specific Information).** These criteria were defined as Group 1 – Engineering Criteria, Group 2 – Additional Considerations, and Group 3 – Site-Specific Information. Group 1 and 2 criteria are summarized in Table 6-1 of the Concept Document. Group 3 criteria are summarized in Table 3.3-1 of this document.

Group 1 siting criteria (engineering criteria) were sufficient space for facility construction and operations; river, road, and rail access; availability of utilities; and proximity to the areas that will be dredged.

Group 2 siting criteria (additional considerations) were the presence of sensitive or cultural resources; existing and historic land uses; the presence of rare or unique ecological communities or threatened and endangered species; ease of acquisition; wetlands, geology, or surface features; and mapped 100-year floodplain or floodway data.

Group 3 siting criteria (site-specific information) included information obtained from further examination of the Group 1 and 2 criteria; site-specific information derived from the field investigations at the FCSs; and design-related information from the RD Team.

- **Implementing Community Involvement Activities.** These activities have included public availability sessions in conjunction with the release of the Concept Document in December 2002; public forums in conjunction with the release of the list of PCSs in June 2003; public forums in conjunction with the release of the list of FCSs in September 2003; and numerous meetings with state, local, and interest groups to answer questions on the process. Public forums in conjunction with the release of this document also are planned.
- **Identifying Preliminary Candidate Sites.** Twenty-four PCSs were identified in the *Hudson River PCBs Superfund Site Technical Memorandum: Identification of Preliminary Candidate Sites Facility Siting Update Report* in June 2003. Fact sheets were developed and distributed and public forums were held in Glens Falls and Albany, New York.
- **Evaluating Preliminary Candidate Sites and Selecting Final Candidate Sites.** Screening and evaluating PCSs was presented at public forums in June 2003. The seven FCSs were identified for the public in the Sediment Processing/Transfer Facility Siting Update Fact Sheet and presented at the public forums in Fort Edward and Troy, New York in September 2003. The process of evaluating PCSs and selecting FCSs is presented in this report in Section 2.
- **Conducting Site-specific Field Investigations at each of the Final Candidate Sites.** Site-specific field investigations took place in October and November 2003. A complete summary of investigation activities is provided in the April 2004 *Facility Siting Data Summary Report*. Following completion of the field investigations, site-specific information was used to develop the Group 3 criteria. The scope and findings of the investigations are summarized in this report in Section 3.
- **Identifying Suitable Sites.** Although not specified in the Concept Document, this document identifies the FCSs that were deemed suitable for the construction and operation of a sediment processing/transfer facility (see Section 4).

- **Recommended Site Selection.** Further evaluation of the Suitable Sites resulted in the proposed selection of Recommended Sites, which were then carried forward into the intermediate design phase. The Recommended Sites and associated evaluation information are described in Section 5 of this report.
- **Identification of the Selected Sites for the RD/Remedial Action (RA) Process.** Information received after the release of the *Draft Facility Siting Report – Public Review Copy* allowed a closer evaluation of the Recommended Sites and the subsequent identification of the Selected Sites. The Selected Sites will be used to construct and operate the sediment processing and/or transfer facilities. The evaluation of the Recommended Sites and the Selected Sites is presented in Section 6 of this report.

The facility-siting process has included coordinating and communicating with various groups over the course of the process, including the public, state and federal agencies, and the RD Team.

PCS Identification and Evaluation (Section 2)

PCS Identification. In December 2002 the EPA's Concept Document was issued to the public and public availability sessions were held. The Concept Document laid out the facility siting process and described how PCSs would be identified. Identifying the PCSs included:

- **Definition of the Facility Siting Study Area.** The study area was defined as the area of the Hudson River from Hudson Falls south to the downstream end of the Port of Albany and extending one-half mile inland from the edge of each shoreline.
- **Database Development.** A geographic information system (GIS) database specific to the Hudson River PCBs Superfund Site was created through the acquisition and subsequent development of various datasets, including aerial photography.
- **Parcel Screening via New York State Office of Real Property Services (NYSORPS) Property Classification Codes.** In the ROD, EPA indicated the focus of the siting efforts would be on industrial and/or commercial properties. Therefore, parcels were screened based on NYSORPS classification codes: vacant non-residential land, commercial, industrial, public services (i.e., power generation and transmission, waste disposal, pipelines, sewage treatment, and water pollution control, etc.), or Hudson River Regulating District Land.
- **Evaluation Against Group 1 Criteria.** Group 1 criteria (i.e., engineering criteria) are sufficient space for facility construction and operations; river,

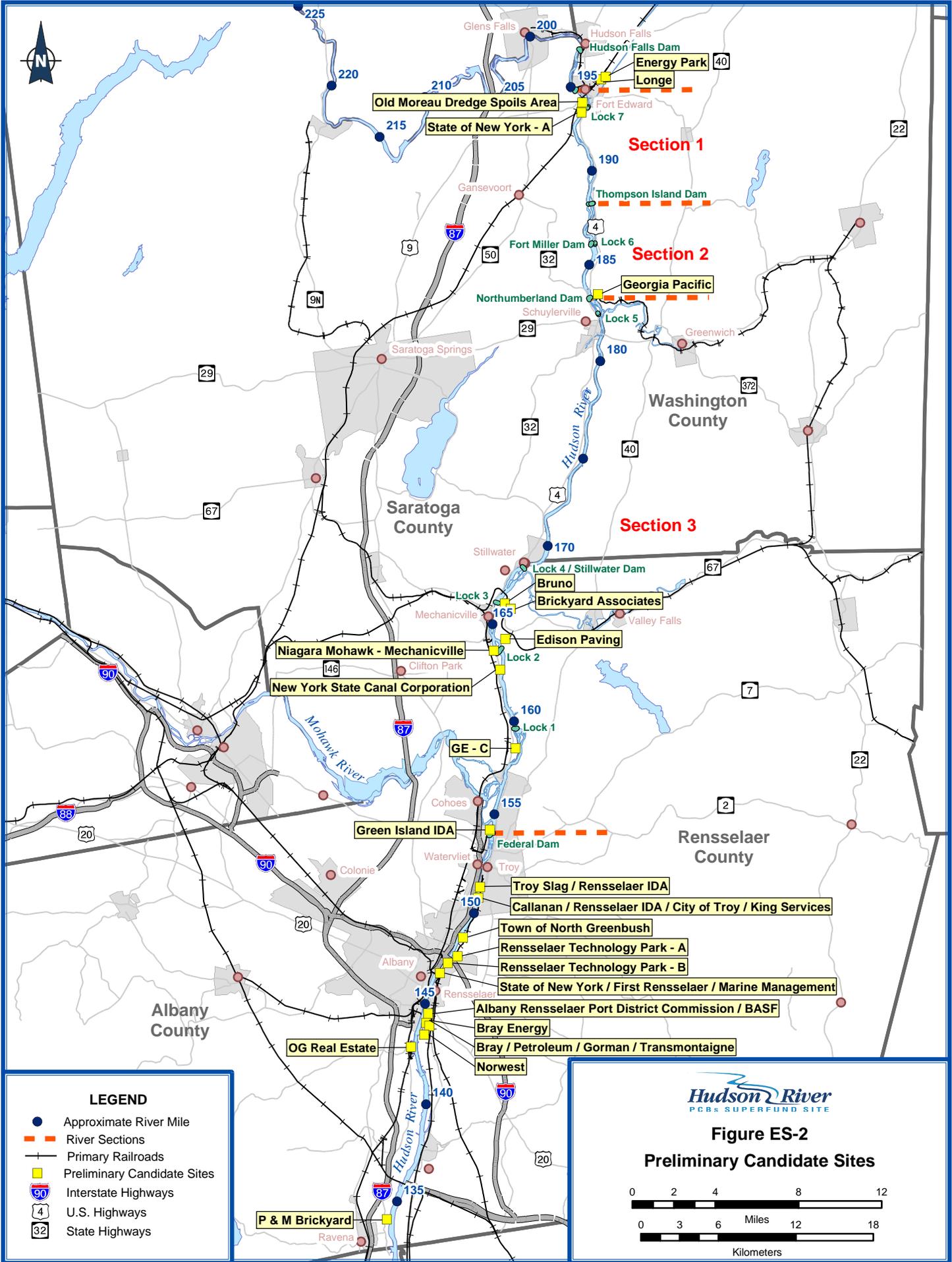
road, and rail access; availability of utilities; and proximity to the areas that will be dredged.

The EPA held public forums in June 2003 in order to provide an update on the facility siting process, provide the results of the initial evaluation process, and present the PCSs. This process and the results of the evaluation are described in the *Hudson River PCBs Superfund Site Technical Memorandum: Identification of Preliminary Candidate Sites* (i.e., the PCS Tech Memo) (USEPA 2003).

Ultimately, the evaluation/screening process identified 24 PCSs, which were located throughout the facility siting study area, half of them occurring south of River Section 3 (see Table ES-3 and Figure ES-2).

Table ES-3 Preliminary Candidate Sites

River Sections/Site Name	Location (Town and County)	Approximate River Mile
Above River Section 1		
Energy Park (Champlain Canal)	Fort Edward, Washington County	195.1
Longe (Champlain Canal)	Fort Edward, Washington County	195.0
River Section 1		
Old Moreau Dredge Spoils Area	Moreau, Saratoga County	193.8
State of New York (A)	Moreau, Saratoga County	193.2
River Section 2		
Georgia Pacific	Greenwich, Washington County	183.2
River Section 3		
Bruno	Schaghticoke, Rensselaer County	166.5
Brickyard Associates	Schaghticoke, Rensselaer County	166.0
Edison Paving	Schaghticoke, Rensselaer County	164.0
NiMo Mechanicville	Halfmoon, Saratoga County	164.0
NYS Canal Corporation	Halfmoon, Saratoga County	162.4
General Electric (C)	Waterford Saratoga County	159.0
Green Island IDA	Green Island, Albany County	154.4
Below River Section 3		
Troy/Slag/Rensselaer IDA	Troy, Rensselaer County	151.4
Callanan/Rensselaer IDA/City of Troy/King Services	Troy, Rensselaer County	150.8
Town of North Greenbush	N. Greenbush, Rensselaer County	148.7
Rensselaer Tech Park (A)	Rensselaer, Rensselaer County	147.7
Rensselaer Tech Park (B)	Rensselaer, Rensselaer County	147.3
State of New York/First Rensselaer/ Marine Management	Rensselaer, Rensselaer County	146.7
Albany Rensselaer Port District/BASF	Rensselaer, Rensselaer County	144.3
Bray Energy	Rensselaer, Rensselaer County	144.0
Bray Energy/Petrol/Gorman/ Transmontaigne	Rensselaer and E. Greenbush, Rensselaer County	144.0
Norwest	E. Greenbush, Rensselaer County	143.5
OG Real Estate	Bethlehem, Albany County	142.8
P & M Brickyard	Coeymans, Albany County	134.1

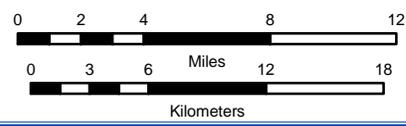


LEGEND

- Approximate River Mile
- River Sections
- Primary Railroads
- Preliminary Candidate Sites
- 90 Interstate Highways
- 4 U.S. Highways
- 32 State Highways



**Figure ES-2
 Preliminary Candidate Sites**



PCS Evaluation. Evaluation of the 24 PCSs used a phased approach that included:

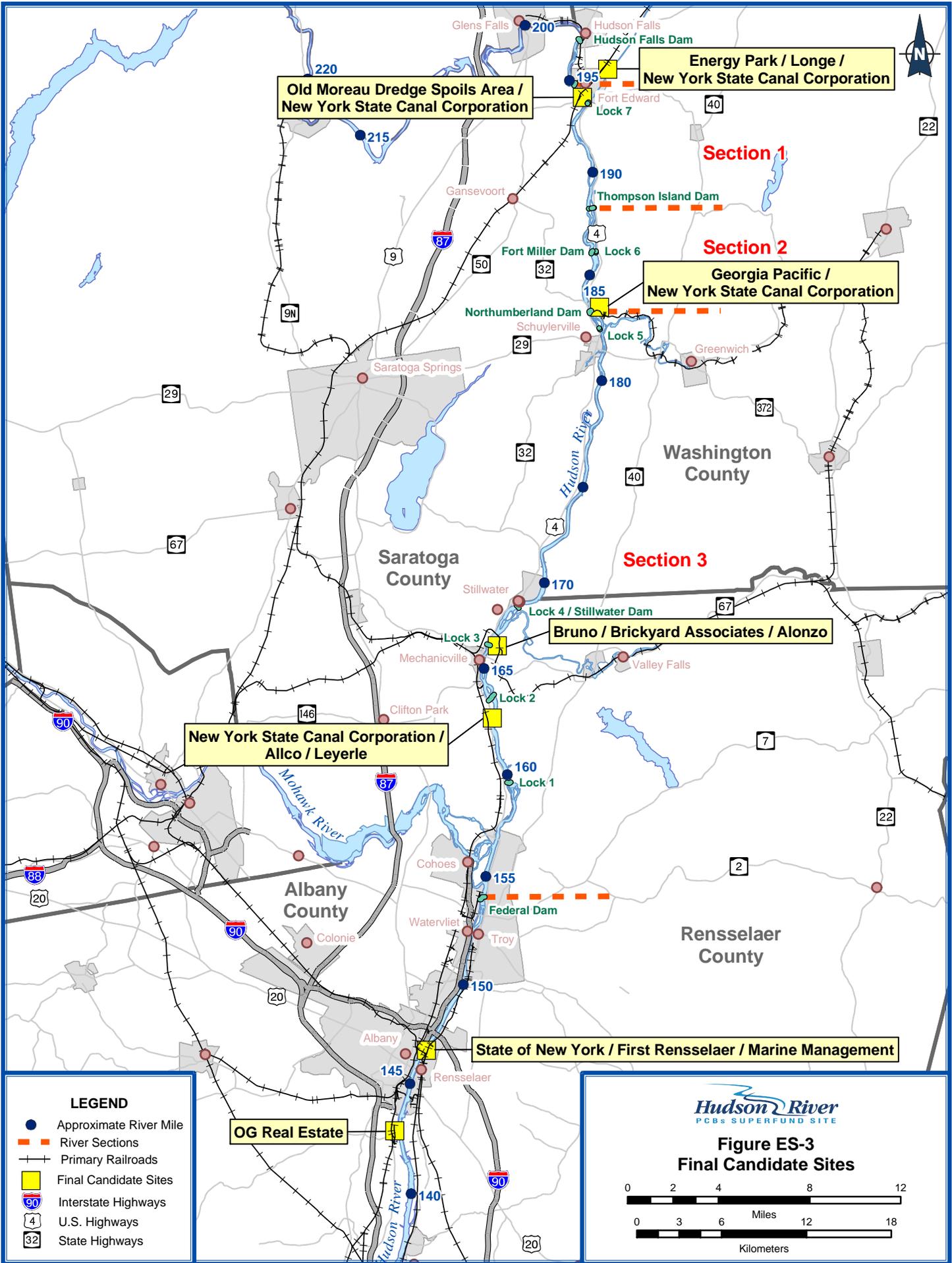
- **Site visits** at most of the PCSs.
- **Development and evaluation of data** (i.e., numbers of residential parcels within 1 mile, acreage of wetlands, presence/absence of floodplains, etc.) associated with Group 1 and Group 2 criteria.
- **Interaction with the RD Team** to discuss features, conditions, and findings on each of the sites and discussions based upon preliminary evaluation of rail facility issues.
- **Modification of some of the PCSs.** An important step in the PCS process included the modification of some of the PCSs by combining separate, adjacent PCSs and/or adding new parcels to create a larger single site.

FCS Identification and Evaluation (Section 3)

FCS Evaluation. Evaluation of the PCSs resulted in identifying seven FCSs. Portions of five of the FCSs include parcels that have been presented to EPA by interested landowners. Further evaluation and receipt of information provided by the RD Team regarding rail access issues indicated that adding property next to some of the sites would enhance the suitability of those sites; thus, six parcels were added to five FCSs. The sites selected as FCSs are listed in Table ES-4 (see also Figure ES-3).

Table ES-4 Final Candidate Sites

River Sections/Site Name	Location (Town and County)	Approximate River Mile
Above River Section 1		
Energy Park/Longe/NYSCC	Fort Edward, Washington County	195.1
River Section 1		
Old Moreau Dredge Spoils Area/NYSCC	Moreau, Saratoga County	193.8
River Section 2		
Georgia Pacific/NYSCC	Greenwich, Washington County	183.2
River Section 3		
Bruno/Brickyard Associates/Alonzo	Schaghticoke, Rensselaer County	166.5
NYSCC/Allco/Leyerle	Halfmoon, Saratoga County	162.4
Below River Section 3		
State of New York/First Rensselaer/ Marine Management	Rensselaer, Rensselaer County	146.7
OG Real Estate	Bethlehem, Albany County	142.8



LEGEND

- Approximate River Mile
- — — River Sections
- +— Primary Railroads
- Final Candidate Sites
- 🛣 Interstate Highways
- 🛣 U.S. Highways
- 🛣 State Highways


Figure ES-3
Final Candidate Sites

0 2 4 8 12
 Miles
 0 3 6 12 18
 Kilometers

FCS Evaluation

As part of the FCS evaluation, the benefits, potential limitations, and design considerations were identified for each site. These benefits, potential limitations, and design considerations were evaluated relative to suitability for the construction and operation of a sediment processing/transfer and rail yard facilities that would meet the needs of the project.

The evaluation of the FCSs involved examining each of the sites and considering information provided by the RD Team. Discussions with the RD Team were held at various points in the FCS evaluation process to incorporate preliminary design information. The following general steps were completed to evaluate the FCSs:

- **Site-specific field investigations.** Field investigations included Phase I Environmental Site Assessments (ESAs), Phase II ESAs, geotechnical assessments, utilities assessments, surveys of terrestrial archaeological and architectural resources, wetland assessments, floodplain assessments, initial coastal management area assessments, and baseline habitat and threatened and endangered species assessments. The investigations further characterized the environmental/physical conditions, identified potential environmental considerations, and assisted in developing Group 3 criteria.
- **Group 3 criteria.** The RD Team provided further information on FCS characteristics that might impose limitations on the design of river access/barge transportation and offloading and rail access. Using this information and the information collected during the field investigations, Group 3 criteria were developed.
- **Characterization of the FCSs.** The FCSs were characterized with respect to Group 1, Group 2, and Group 3 criteria to identify which FCSs were suitable for the operation of sediment processing and transfer facilities (including a rail yard).
- **Additional studies.** Additional studies included an Environmental Justice evaluation and review of available traffic information. This information indicated that human health risks were minimal to low and that no further investigation was warranted.

Selection of Suitable Sites (Section 4)

Although benefits, potential limitations, and additional design considerations were identified for each of the seven FCSs, the overall suitability of these FCSs for sediment processing/transfer facility and rail yard facility construction and operation was the basis of the evaluation performed thus far. However, evaluation of the FCSs suggested that some of the sites exhibited more closely the characteristics needed to be considered Suitable Sites. Suitable Sites are listed in Table ES-5 (see also Figure ES-4).

Table ES-5 Suitable Sites

River Sections/Site Name	Location (Town and County)	Approximate River Mile
Above River Section 1		
Energy Park/Longe/New York State Canal Corporation (NYSCC)	Fort Edward, Washington County	195.1
River Section 1		
Old Moreau Dredge Spoils Area/NYSCC	Moreau, Saratoga County	193.8
River Section 3		
Bruno/Brickyard Associates/Alonzo	Schaghticoke, Rensselaer County	166.5
NYSCC/Allco/Leyerle	Halfmoon, Saratoga County	162.4
Below River Section 3		
OG Real Estate	Bethlehem, Albany County	142.8

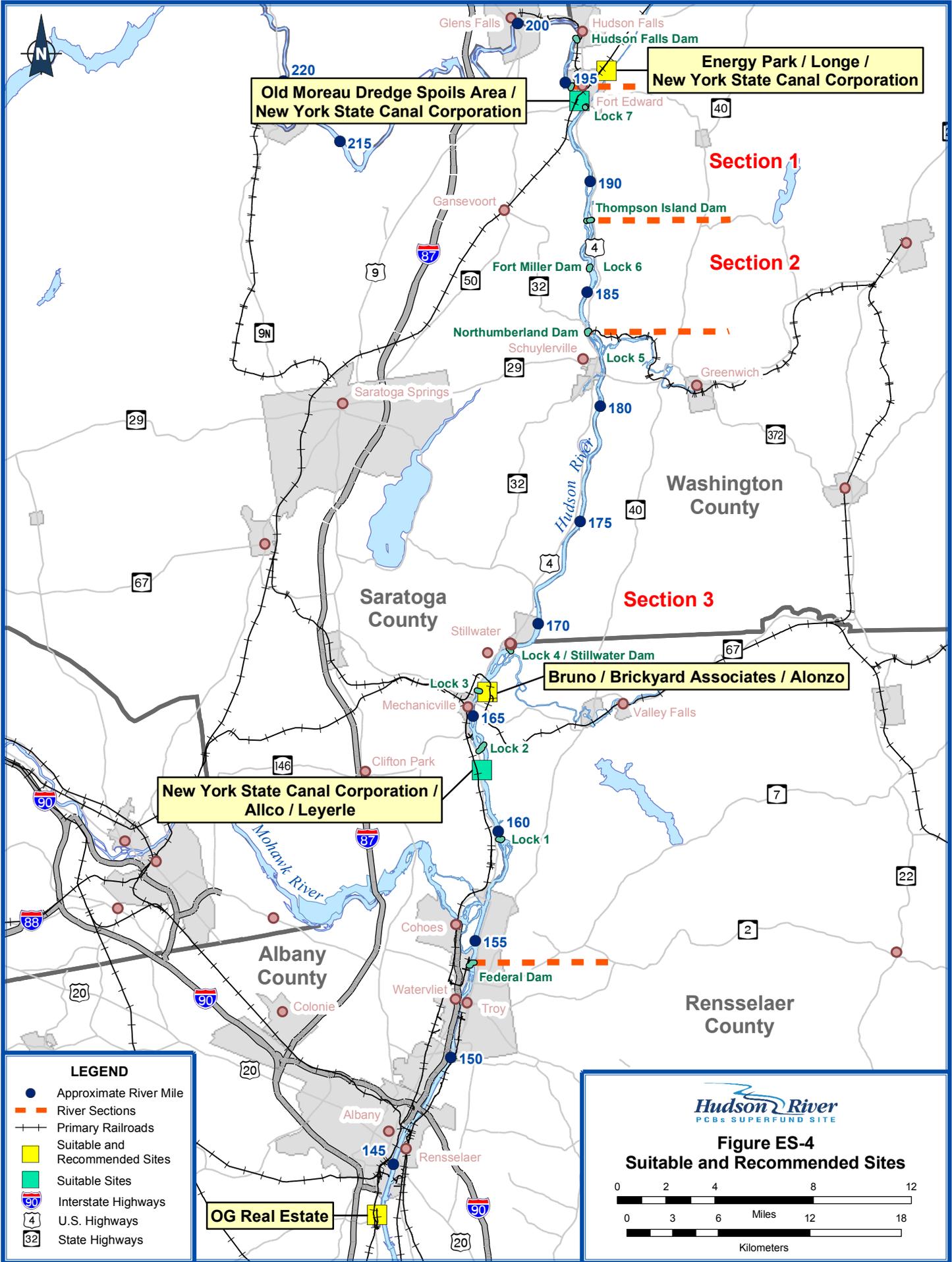
Design considerations identified by the RD Team indicated that although the evaluation had previously centered on sites with sufficient useable acreage to construct both a sediment processing/transfer facility (5 acres for mechanically dredged materials and 15 acres for hydraulically dredged materials) and a rail yard facility (15 to 25 acres), the evaluation should also consider using sites for sediment processing/transfer only in conjunction with barging to another site for rail load-out. This would be an important consideration for sites that benefit by proximity to the targeted dredging areas (a critical factor in transporting hydraulically dredged sediment by pipeline) but may be limited by factors that would prevent the development of a rail yard facility on-site. This potential site-use scenario allowed some FCSs with potentially limited usable acreage to be considered suitable for meeting overall project objectives.

Selection of Recommended Sites (Section 5)

The RD Team evaluated the Suitable Sites in detail, analyzing benefits and limitations to determine which sites would provide the flexibility needed to design a successful dredging program. It was assumed that each site would carry out the following functions of a sediment processing/transfer facility: dewater the sediments, treat the removed water, and load the dewatered sediments at an on-site rail yard for transport and disposal.

The Recommended Sites selected (see Figure ES-4) were:

- Energy Park/Longe/NYSCC;
- Bruno/Brickyard Associates/Alonzo; and
- OG Real Estate.



**Old Moreau Dredge Spoils Area /
 New York State Canal Corporation**

**Energy Park / Longe /
 New York State Canal Corporation**

Bruno / Brickyard Associates / Alonzo

**New York State Canal Corporation /
 Allco / Leyerle**

OG Real Estate

LEGEND

- Approximate River Mile
- River Sections
- Primary Railroads
- Suitable and Recommended Sites
- Suitable Sites
- 🛣 Interstate Highways
- 🛣 U.S. Highways
- 🛣 State Highways

Hudson River
 PCBs SUPERFUND SITE

Figure ES-4
Suitable and Recommended Sites

0 2 4 8 12

0 3 6 Miles 12 18

0 3 6 12 18

Kilometers

Key design and logistical considerations were examined in order to select the Recommended Sites. Sites were evaluated in terms of efficiently supporting waterfront, processing, and rail yard facilities. The potential for “barge in-barge out” (i.e., barging material to a site, processing, and transferring processed material to another rail load out location) will be examined during the intermediate design phase.

The major decision factors used to select the Recommended Sites are summarized below.

- **Useable Acreage.** The areas within a site not restricted by potential limitations (i.e., steep topography, environmental conditions, cultural resources, wetlands, etc.) were considered useable acreage.
- **Rail Yard Suitability.** Rail yard suitability is a function of useable acreage but also involves access to an active rail line, frontages along active rail lines, the condition and location of existing rail lines, available space for acceptable track configurations for rail car loading, and optimal layout between the rail yard and the processing facility.
- **Waterfront Suitability.** Waterfront suitability is shoreline of adequate space, length, and relatively level topography for the construction of waterfront facilities and structures. Additional factors in waterfront suitability include existing river channel depths and the potential need for periodic navigational dredging.
- **Environmental Conditions.** Environmental conditions refer to the results of the Phase II sampling and include issues of potential contamination, types and locations of contamination, the need for future sampling, and potential limitations on useable acreage.
- **Road Access.** Establishing road access was identified as an additional design consideration for each of the Suitable Sites.
- **Proximity to Dredge Areas.** Proximity to dredge areas has been considered a critical factor from the outset of the facility siting process. Sites that are closer to larger percentages of the dredge material increase efficiencies of transfer of dredge materials and provide the potential to use hydraulic dredging or both hydraulic and mechanical dredging. These factors influence dredging production rates. River Section 1 contains the majority of the material to be dredged (approximately 59%). Absent other evaluation criteria, locating a facility close to the largest volume of material to be dredged would be advantageous to the design of a successful dredging program. No Suitable Sites were identified in River Section 2, where approximately 22% of the dredge material is located. However, it is assumed that dredge material can be transported north or south of River Section 2 to a selected site.

- **Other Site Considerations.** Other site factors also examined were the presence of wetlands and cultural resources; access to borrow material; and the geology, surface features, and floodplains. Although these factors were evaluated, they were not determined to be key decision factors but will likely influence design.

Selected Sites (Section 6)

Comparison of the Recommended Sites indicated 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 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.

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 for 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 or barge;
- 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 the 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 the 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.

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 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 is considering con-

structing 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 showed 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. The EPA is developing a Biological Assessment to evaluate and manage the impact of the project on threatened and endangered wildlife in the region. EPA will continue to consult with appropriate federal and state agencies in determining whether any federally listed threatened and endangered species existing in the project area may warrant special consideration as the project is designed. Conservation measures will be developed in the Biological Assessment to ensure that population-level impacts do not occur to any federally listed threatened or endangered species.
- 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.

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.

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 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 has 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 in 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.

Status of Remaining 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 of 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.

Conclusion

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 locations and characteristics of the sites are discussed in greater detail in the body of this report. 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 options of dredging methods) and relative 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 the Energy Park/Longe/NYSCC and OG Real Estate sites as the Selected Sites that will be used for the dredging project.