

ATTACHMENT NO. 5

**Natural Systems Assessment:
Waters of the United States Delineation
River's Edge South Harbor**

**NATURAL SYSTEMS ASSESSMENT:
WATERS OF THE UNITED STATES DELINEATION
RIVER'S EDGE SOUTH HARBOR
MADISON, ILLINOIS**

Prepared for:

TRI-CITY REGIONAL PORT DISTRICT
Granite City, Illinois

Prepared by:

GEOTECHNOLOGY, INC.
Collinsville, Illinois

Geotechnology, Inc. Report No. 0734009.85TA

October 1, 2008



GEOTECHNOLOGY, INC.

ENGINEERING AND ENVIRONMENTAL SERVICES
SAINT LOUIS • COLLINSVILLE • KANSAS CITY

October 1, 2008

0734009.85TA

Mr. Bill Stahlman, EIT
Project Engineer
Tri-City Regional Port District
1635 West First Street
Granite City, Illinois 62040

Re: Natural Systems Assessment: Waters of the United States Delineation
River's Edge South Harbor
Madison, Illinois

Dear Mr. Stahlman:

In general accordance with our Proposal P14325.00.81TW dated April 1, 2008, Geotechnology, Inc. has performed a Waters of the United States (U.S.) Delineation for the referenced project. Our scope of services has included a document review, site reconnaissance, data analysis, and the preparation of this report. During the delineation, we identified three jurisdictional watercourses: the Mississippi River, a United States Army Corps of Engineers (USACE) Relief Well Drainageway, and a primary Drainageway to the Mississippi River. Additionally, one Scrub-Shrub Wetland, two Emergent Wetlands, and three Forested Wetlands were identified in the project area.

This report includes research data, field data, and a summary of existing conditions as well as the delineation of waters of the U.S. The delineation has been performed to assist the Tri-City Regional Port District with avoidance and minimization efforts in the design of the proposed project. A summary of project impacts and necessary permit applications will be submitted by others under separate cover.

We appreciate the opportunity to be of assistance the Tri-City Regional Port District. Please contact the undersigned if you have any questions.

Very truly yours,

GEOTECHNOLOGY, INC.

Robin L. Reymond
Staff Scientist

RLR/DJG/DMS:rlr/jsj

Copies Submitted: 4 (1 unbound) + CD

Dale Smith, P.E.
Branch Manager



NATURAL SYSTEMS ASSESSMENT:
WATERS OF THE UNITED STATES DELINEATION
RIVER'S EDGE SOUTH HARBOR
MADISON, ILLINOIS

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NATURAL SYSTEMS ASSESSMENT:
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RIVER'S EDGE SOUTH HARBOR
MADISON, ILLINOIS

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NATURAL SYSTEMS ASSESSMENT:
WATERS OF THE UNITED STATES DELINEATION
RIVER'S EDGE SOUTH HARBOR
MADISON, ILLINOIS

1.0 EXECUTIVE SUMMARY

Geotechnology, Inc. (Geotechnology) has performed a waters of the United States (U.S.) delineation of the proposed River's Edge South Harbor. Waters of the U.S., as defined by 33CFR Part 328, are waterbodies under the jurisdiction of the United States Army Corps of Engineers (USACE). Impacts to waters of the U.S. within the project area will require approvals and permitting by the USACE, the Illinois Environmental Protection Agency (IEPA), and the Illinois Department of Natural Resources (IDNR).

During delineation activities the following waters of the U.S. were identified: the Mississippi River, a USACE Relief Well Drainageway, a primary drainageway to the Mississippi River, two Emergent Wetlands, three Forested Wetlands, and a Scrub-Shrub Wetland. Approximately 5,486 lineal feet (LF) of jurisdictional watercourses and approximately 31.48 acres of wetlands were identified within the project boundaries.

In addition to waters of the U.S., it should be noted that the levee which transverses the eastern boundary of the project area is part of an extensive levee system which protects residents and businesses of the Metro East from flood events. Any proposed impacts to the levee as a result of the project will require approval and permitting by the USACE as well as local and state agencies.

This report includes research data, field data, and a summary of existing conditions as well as the delineation of waters of the U.S. within the project boundaries. The delineation has been performed to assist with avoidance and minimization efforts in the design of the proposed project. A summary of project impacts and necessary permit applications will be submitted by others under separate cover.

2.0 SITE LOCATION

The approximate 63.64-acre project area exists on the left descending bank (LDB) of the Mississippi River near River Mile 183.5L. The site is located in Madison, Madison County, Illinois (Section 26, Township 3 North, Range 10 West). The project area is just downstream of the confluence of the Mississippi River and the Chain of Rocks Canal and adjacent to the former Charles Melvin Price Support Center (CMPSC). CMPSC, now owned by TCRPD, is being redeveloped into an industrial, commercial, and residential development known as River's Edge.

3.0 PROJECT DESCRIPTION

Approximately 18.00 acres of the project area encompasses the levee. Approximately 45.64 acres of the project area exists between the levee and the Mississippi River. Proposed plans for the site include the construction of a new marginal harbor. The proposed marginal harbor will facilitate current and future industrial and commercial development at River's Edge. Construction of the harbor will require dredging and fill operations within the project area.

4.0 DOCUMENT REVIEW

4.1 USGS Topographic Maps. A review of the 1993 United States Geological Survey (USGS) Topographic Map, Granite City, Illinois-Missouri Quadrangle, indicated the presence of the Mississippi River in the project area. The confluence of the Chain of Rocks Canal and the Mississippi River is just north of the project area and a small inlet channel exists adjacent to Merchant's Bridge south of the project area. According to the USGS map, the area appears to have been historically referred to as Kerr Island. The project area extends from the eastern boundary (land-side) of a USACE levee to the Mississippi River, just west and adjacent to a mapped U.S. Military Reservation on the remaining three sides. Topography of the area appears to be mostly level. Please refer to Plate 1, Site Location and Topography.

4.2 National Wetland Inventory Maps. The 1988 National Wetland Inventory (NWI) map and the U.S. Fish and Wildlife Service's (USFWS) online Wetlands Geodatabase were reviewed for information pertaining to mapped wetlands and waterways in the project area. Each map indicated that the majority of the project area has been mapped as containing wetlands: PFO1A – forested wetlands, broad-leaved deciduous, temporarily flooded; PSS1A – scrub-shrub wetlands, broad-leaved deciduous, temporarily flooded; and PEMC – emergent wetlands, seasonally flooded. NWI maps also indicated the presence of the Mississippi River in the project area, the Chain of Rocks Canal to the north, and an inlet channel to the south. The Mississippi River is classified as R2UBH – lower perennial river. Please refer to Plate 2, NWI Map.

In addition to available USFWS maps, the USACE supplied NWI information which has been superimposed on 2005 and 2006 aerial photographs. These maps are included as Attachment A.

4.3 Soil Survey. The Web Soil Survey 2.0 for Madison County, Illinois, prepared by the United States Department of Agriculture (USDA)/Natural Resources Conservation Service (NRCS), dated May 26, 2006, was reviewed for information concerning hydric soils in the area. The area of the levee has been mapped as Orthents, loamy, hilly which is not listed as a hydric soil. Between the levee and the Mississippi River, soils have been mapped as Rocher loam and



Beaucoup silty clay loam, which are both frequently flooded. Of the two riverside soils, Beaucoup silty clay loam has been mapped as a poorly drained hydric soil. Rocher loam has not been mapped as a hydric soil. The soil survey indicates that Rocher loam is comprised of a somewhat excessively drained loamy very fine sand. Hydric soils have the potential to support wetlands. A copy of the soil survey is included as Plate 3.

4.4 USDA/NRCS Aerial Photographs. Geotechnology performed research at the Madison County USDA/NRCS office for historical land use and wetland information. NRCS wetland determinations are typically performed on land which is currently or recently has been in agricultural use. As the project area appears to not have been used for agricultural practices, NRCS has classified the area as ND – No Determination and NI – Non-Inventoried.

A copy of the 1998 aerial photograph of the project area was obtainable from USDA. As the area has not been used for agricultural purposes, more recent aerial photographs were not obtainable. Overall, the area appears relatively unchanged from 1988 to more recent aerial photographs viewable online. The 1988 and 1998 aerial photographs indicate a channel flowing through the utility easement which transverses the length of the project area. NRCS aerial photographs are included as Appendix B.

4.5 Additional Information. According to river gage information obtained from USACE, USGS, and the National Oceanic and Atmospheric Administration, St. Louis Weather Service, the Mississippi River has experienced water levels near and/or above flood stage from Mid-March 2008 through early August 2008. River gage information for Locks 27, approximately 1.5 miles upstream of the project area, and for St. Louis, Missouri, approximately 3.4 miles downstream of the project area, is included as Appendix C.

Historical photographs of construction of the wharf, now known as the CMPSC Wharf, were obtained by TCRPD. The 1943 photographs depicting construction of the docking facility are included as Appendix D. These photographs not only exhibit a glimpse of riverside construction practices of the era, but also display the building elements which are still in place.

In addition to the historical photographs, recent aerial photographs of the area were obtained by TCRPD. These photographs depict the project area during a March 21, 2008 high water event and after flood waters subsided in August 2008. Water elevations recorded at the Lower Locks 27 on March 21st ranged from 413.27 to 413.77. The March 21st water levels are three feet higher than the ordinary high water (OHW) elevation of 410.5 feet supplied by the USACE. Dry, upland areas in the aerial photograph taken March 21st appear to coincide with field observations. TCRPD aerial photographs are included as Appendix E.



5.0 SITE RECONNAISSANCE

Geotechnology conducted initial site reconnaissance of 58.30 acres of the project area to assess potential wetlands and waterbodies August 14 through August 19, 2008. The initial site investigation included a large portion of the levee and riverside of the levee. According to <http://www2.mvr.usace.army.mil/WaterControl/shefdata2.cfm?sid=CE626E20&d=248&dt=E>, river stages at Locks 27 were recorded to range from 388.22 to 389.42 feet during our initial field investigation. Due to changes in road alignment, further site reconnaissance of an additional 5.34 acres of the levee was performed on September 17, 2008. During the September site visit, the Mississippi River was at flood stage (418.46 feet). However, high waters did not impede investigation of the levee and adjacent drainageway.

Due to the extraordinary flooding events of 2008, enclosed wetland data forms may reflect hydrologic indicators (primarily sediment deposits) which may not be typical. A summary of identified waters of the U.S. is outlined on Table 1 at the end of this section. Site Photographs are included as Appendix F. Wetland Data Forms are included as Appendix G and the Wetland Indicator Status Sheet is included as Appendix H.

During the site reconnaissance, the Mississippi River, a USACE Relief Well Drainageway, a Drainageway, two Emergent Wetlands, three Forested Wetlands, and a Scrub-Shrub Wetland were observed. In addition to the watercourses and wetlands observed, upland areas including the onsite levee, CMPSC Wharf, and Wharf Road were observed. Please refer to Plate 4 for an overall aerial of the project area and identified waters of the U.S. Please refer to Plates 5 through 11 for sampling locations, photo locations, and topographic details.

5.1 Watercourses. Three watercourses, including the Mississippi River were identified within the project area. Overall, 5,486 lineal feet (LF) of jurisdictional watercourses were observed within the project boundaries.

5.1.1 Mississippi River. The Mississippi River, a navigable watercourse, exists along the western boundary of the project site. The river extends approximately 2,030 LF along the site's western boundary. The OHW elevation of the Mississippi at this location is 410.5 feet according to the USACE. The Mississippi River is a navigable watercourse; therefore, any impact to the river at or below the elevation of 410.5 feet will require approval by regulatory agencies.

5.1.2 USACE Relief Well Drainageway. A man-made drainageway that connects levee relief wells was observed at the eastern toe of the levee. Wells within the drainageway are approximately 150 LF apart. The ephemeral drainageway has a gravel and sediment bed and is approximately 2 to 3 feet wide. Banks of the USACE Relief Well Drainageway range from 3 to 6 feet high and were observed to be lined with

grouted riprap and gravel. Upland vegetation [fescue (*Festuca arundinacea*) and johnsongrass (*Sorghum halepense*)] was observed to be growing in a large portion of the drainageway bed. Vegetation in the drainageway appears to be well maintained in conjunction with levee vegetation. Within the project area, the drainageway drains from the north and from the south to a pump station within the project boundaries. Approximately 3,386 LF of the drainageway exists within the project boundaries; however, 855 LF of the drainageway is piped. As the drainageway and relief wells are directly connected to the Mississippi River, impacts to the drainageway and/or relief wells will require approval by regulatory agencies.

5.1.3 Drainageway. A man-made drainageway exists along the southern boundary of the project site. The drainageway was observed to be approximately 10 to 12 feet wide with 2 to 3 feet high banks. The drainageway was observed to have a sediment bottom and contain large amounts of flood debris. The drainageway appears to have been constructed to drain Emergent Wetland 1 and discharges to the Mississippi River. Approximately 70 LF of the drainageway exist within the project boundaries. Since the drainageway is a primary tributary to the Mississippi River, impacts to the drainageway will require approval by regulatory agencies.

5.2 Wetlands. During site reconnaissance, two Emergent Wetlands, three Forested wetlands, and a Scrub-Shrub Wetland were observed between the levee and the Mississippi River. Overall, approximately 31.48 acres of wetlands were identified in the project boundaries. Each wetland exists within the Mississippi River floodplain and is hydrologically influenced by the river. Impacts to any of the wetlands in the project area will require approval by regulatory agencies.

5.2.1 Emergent Wetland 1. Emergent Wetland 1 exists in the overhead electrical easement south of Wharf Road. The wetland is bound by a scrub-shrub wetland (not in the project boundaries) to the east, Wharf Road to the north, and Forested Wetland 1 to the west. The wetland extends south of the project boundary; approximately 0.84 acres of the emergent wetland exist on site. During site reconnaissance, Emergent Wetland 1 was observed to be inundated in areas and appeared to have been inundated just days prior to field work. Due to recent and current inundation, the wetland was not observed to support hydric vegetation; however, adjacent vegetation observed included swamp smartweed (*Polygonum hydropiperoides*) and buttonbush (*Cephalanthus occidentalis*). Each of these plants is classified as an obligate wetland species.

Emergent Wetland 1 was observed to support hydric soils. Soils exhibited mottling and mineral concretions. Additionally, the area has been mapped as an emergent wetland on NWI maps. See data forms S1 and S8.



5.2.2 Emergent Wetland 2. Emergent Wetland 2 exists north of Wharf Road. The irregularly-shaped wetland exists between the levee (in the pipeline easement) and Forested Wetland 2 and the Scrub-Shrub Wetland along its eastern boundary. Emergent Wetland 2 wraps around the aforementioned wetlands and is bound by Wharf Road to the south and Forested Wetland 3 to the west. The emergent wetland extends north of the project boundaries; approximately 11.78 acres of the wetland exist on site.

The lower elevated portions of Emergent Wetland 2 exist in an overhead electrical easement and were observed to be partially inundated. Saturated soils were observed throughout the boundaries of the wetland. Emergent Wetland 2 was observed to support hydrophytic plant species, including swamp smartweed (*Polygonum hydropiperoides*), fogfruit (*Phyla lanceolata*), and strawcolored flatsedge (*Cyperus strigosus*). A large portion of Emergent Wetland 2 did not exhibit existing vegetation due to recent flooding and inundation.

Emergent Wetland 2 was observed to support hydric soils, however, soils were observed to be varied between heavy clay and hydric sand. Mottling, mineral concretions, and/or oxidized root channels were observed in soil borings taken in the wetland. A portion of the soils of Emergent Wetland 2 have been mapped as Beaucoup silty clay loam, a hydric soil. Additionally, a large portion of the wetland has been mapped as an emergent wetland on NWI maps. See data forms S17, S19, S23, S25, S27, and S30.

5.2.3 Forested Wetland 1. Forested Wetland 1 exists along the southern boundary of the project site. The wetland extends south of the project area; approximately 1.41 acres of Forested Wetland 1 exist within the project boundaries. Forested Wetland 1 is bound by Emergent Wetland 1 to the east, CMPSC Wharf to the north, and the Mississippi River to the west. Little herbaceous vegetation was observed in the wetland due to recent flooding; however, the area was not observed to be inundated. Evidence of recent flooding, including flood debris and sediment marks approximately 15 to 16 feet high were observed.

Forested Wetland 1 was observed to support mature cottonwoods (*Populus deltoides*), and silver maples (*Acer saccharinum*). Smaller tree species within the wetland include mulberry (*Morus alba*), river birch (*Betula nigra*), and black willow (*Salix nigra*). Each of these tree species is classified as a hydrophytic or "water-loving" plant species. Hydric soils were observed in Forested Wetland 1; however, soil textures and structures were varied from heavy clays to hydric sands. Mottling and/or mineral concretions were observed in soil borings. A large portion of Forested Wetland 1 has been mapped as Beaucoup silty clay loam, a hydric soil. See data forms S4, S6, S7, S12, S13, S14, and S15.



5.2.4 Forested Wetland 2. Forested Wetland 2 is a linear wetland which is bound by Emergent Wetland 2 to the east, south, and west, and the Scrub-Shrub Wetland to the north. The wetland exists between the pipeline easement and the overhead electrical easement north of Wharf Road. Forested Wetland 2 is confined to the site boundaries and encompasses approximately 2.62 acres. Forested Wetland 2 is dominated by silver maple (*Acer saccharinum*), cottonwood (*Populus deltoides*), mulberry (*Morus alba*), and black willow (*Salix nigra*). Each of these trees is classified as a hydrophytic species.

Inundation and saturation were observed in Forested Wetland 2. The wetland was observed to support hydric soils. Soil borings indicated primarily a heavy clay surficial soil with underlying hydric sand. Mottling and mineral concretions were observed. A large portion of Forested Wetland 2 has been mapped as Beaucoup silty clay loam, a hydric soil. Additionally, a large portion of the wetland has been mapped as forested wetlands on NWI maps. See data forms S21, S24, S28, and S31.

5.2.5 Forested Wetland 3. Forested Wetland 3 is the largest of the three on-site forested wetlands. The forested wetland extends north of the project area; approximately 14.62 acres of Forested Wetland 3 exist within the project boundaries. Forested Wetland 3 is bound by Emergent Wetland 2 to the east, CMPS Wharf to the south, and the Mississippi River to the west. The wetland was observed to be dominated by mature cottonwoods (*Populus deltoides*) and silver maples (*Acer saccharinum*). In addition, smaller mulberry (*Morus alba*), river birch (*Betula nigra*), and black willow (*Salix nigra*) trees were observed. Each of these trees is classified as a hydrophytic species. Little herbaceous vegetation was observed due to recent flooding. Forested Wetland 3 was observed to be inundated in areas and highly saturated.

Forested Wetland 3 was observed to support hydric soils, with a heavy influence of hydric sands. Mottling and mineral concretions were observed. A large portion of Forested Wetland 3 has been mapped as Beaucoup silty clay loam, a hydric soil. Additionally, the wetland has been mapped as forested wetlands on NWI maps. See data forms S34, S35, S37, S39, and S40.

5.2.6 Scrub-Shrub Wetland. The Scrub-Shrub Wetland exists in the northern portion of the project site and is bound by Emergent Wetland 2 to the east and west, and Forested Wetland 2 to the South. The Scrub-Shrub Wetland extends north of the project area; approximately 0.21 acres of the wetland exist within the project boundaries. The Scrub-Shrub Wetland is a linear wetland which is dominated by small mulberry shrubs (*Morus alba*) and grape vine (*Vitis spp.*) The wetland was observed to be saturated and to support hydric soils. Mottled hydric soils exhibited concretions, organic streaking, and a high organic content in the lower sandy portion. Soils of the wetland have been mapped

as Beaucoup silty clay loam, a hydric soil. Additionally, a portion of the wetland has been mapped as scrub-shrub wetlands on NWI maps. See data form S32.

5.3 Upland Areas. In addition to watercourses and wetlands, three prominent upland areas exist within the project boundaries: the levee, Wharf Road, and CMPSC Wharf.

5.3.1 Levee. The levee, currently owned by the Metro East Levee District, is part of an extensive levee system that protects Metro East, Illinois, from flooding of the Mississippi River. The levee transverses the eastern portion of the project area. The constructed levee is approximately 250 feet wide and peaks at an elevation of 440 feet. Vegetation on the levee was observed to be well maintained and primarily comprised of the upland species, fescue (*Festuca arundinacea*) and johnsongrass (*Sorghum halepense*). Other upland species observed include toothed spurge (*Euphorbia dentata*), wholly croton (*Croton capitatus*), wild potato vine (*Ipomoea pandurata*), camphorweed (*Heterotheca subaxillaris*), field bindweed (*Convolvulus arvensis*), and nodding foxtail (*Setaria faberi*).

Sediment marks were observed near the elevation of 420 feet on the river (west) side of the levee. This is consistent with USACE flood data obtained at <http://www2.mvr.usace.army.mil/WaterControl/shefdata2.cfm?sid=CE626E20&d=237&dt=E>. Although sediment marks were observed at higher than normal levels, other wetland hydrological indicators were not observed. Soil borings taken closer to the toe of the levee exhibited refusal between 2 and 6 inches. See data forms S20, S22, S26, and S29.

While the levee did not exhibit characteristics of waters of the U.S., the levee has been built to protect residents and businesses of the Metro East from floodwaters. Therefore, any impacts to the levee will require approval by the USACE as well as local and state regulatory agencies.

5.3.2 Wharf Road. Wharf Road is an access road to the CMPSC Wharf that crosses the levee. Constructed in the early 1940s, the road was observed to have retained much of its original integrity. Specifically, although the road has been unmaintained and exposed to flooding, its alignment and underlying building materials have not eroded or washed away. Herbaceous and woody vegetation was observed to be slowly migrating upward from either toe of the road's slopes. Upland herbaceous vegetation was observed on the toe of slope of the road through the area of the overhead electrical easement, including common sunflower (*Helianthus annuus*), wild potato vine (*Ipomoea pandurata*), pigweed (*Amaranthus albus*), and trumpetvine (*Campsis radicans*). Riverside of the overhead electrical easement, woody vegetation appears to be spreading. Shrubby mulberry (*Morus alba*) and honeylocust (*Gledistia triacanthos*) dominate the toe of the slope outside of the easement and provide a woody transition buffer to adjacent forested wetlands.

Due to near record flooding, sediment deposits were observed on the Wharf Road below the elevation of 420 feet; however, other wetland hydrological indicators were not observed. Generally, the top elevation of Wharf Road in the floodplain is 415 feet. Soil borings taken near the toe of the slope of the road exhibited refusal at 4 to 6 inches. Concrete and gravel building materials were observed on the top of the road. See data forms S2, S3, S18, and S33.

5.3.3 CMPSC Wharf. Built in the early 1940s, many of the original building materials of the CMPSC Wharf remain today. These materials include concrete remnants, riprap, gravel, and cobblestone. Herbaceous vegetation of the top of the wharf was observed to be dominated by johnsongrass (*Sorghum halepense*) and switchgrass (*Panicum virgatum*). Perimeter areas of the wharf to the north and south were observed to be dominated by mulberry (*Morus alba*), honeylocust (*Gleditsia triacanthos*), and river birch (*Betula nigra*). Silver maple (*Acer saccharinum*) and cottonwood (*Populus deltoides*) were observed to grow near the boundaries of the wharf and adjacent forested wetlands. Sparse vegetation was observed on the banks of the Mississippi River which exists as the western boundary of the wharf, however, scattered bush honeysuckle (*Lonicera maackii*) and black willow (*Salix nigra*) were observed. While some hydrophytic species were observed to be growing on the wharf; upland vegetation appeared to dominate the relative cover.

Where exposed rock was not observed, soil borings were taken. Soil borings exhibited refusal between 3 to 6 inches. Surficial soils were observed to be highly variable. Based upon sampling areas in the field, our findings illustrated a consistency in the boundary of the wharf with the OHW elevation of 410.5 feet. Impacts to the bank of the wharf up to and including the 410.5 feet elevation will be considered river impacts and require approval by regulatory agencies. See data forms S5, S9, S10, S11, S16, S36, S38, and S41.



Table 1. Summary of Waters of the U.S.

<u>Waterbody</u>	<u>Lineal feet (LF)</u>	<u>Acreage</u>	<u>Classification</u>	<u>Totals</u>
Mississippi River	2,030 LF			
			Navigable Waters	2,030 LF
USACE Relief Well Drainageway	3,386 LF			
Drainageway	70 LF			
			Drainageways	3,456 LF
Emergent Wetland 1		0.84 Acres		
Emergent Wetland 2		11.78 Acres		
			Emergent Wetlands	12.62 Acres
Forested Wetland 1		1.41 Acres		
Forested Wetland 2		2.62 Acres		
Forested Wetland 3		14.62 Acres		
			Forested Wetlands	18.65 Acres
Scrub-Shrub Wetland		0.21 Acres		
			Scrub-Shrub Wetlands	0.21 Acres
Totals	5,486 LF	31.48 Acres		

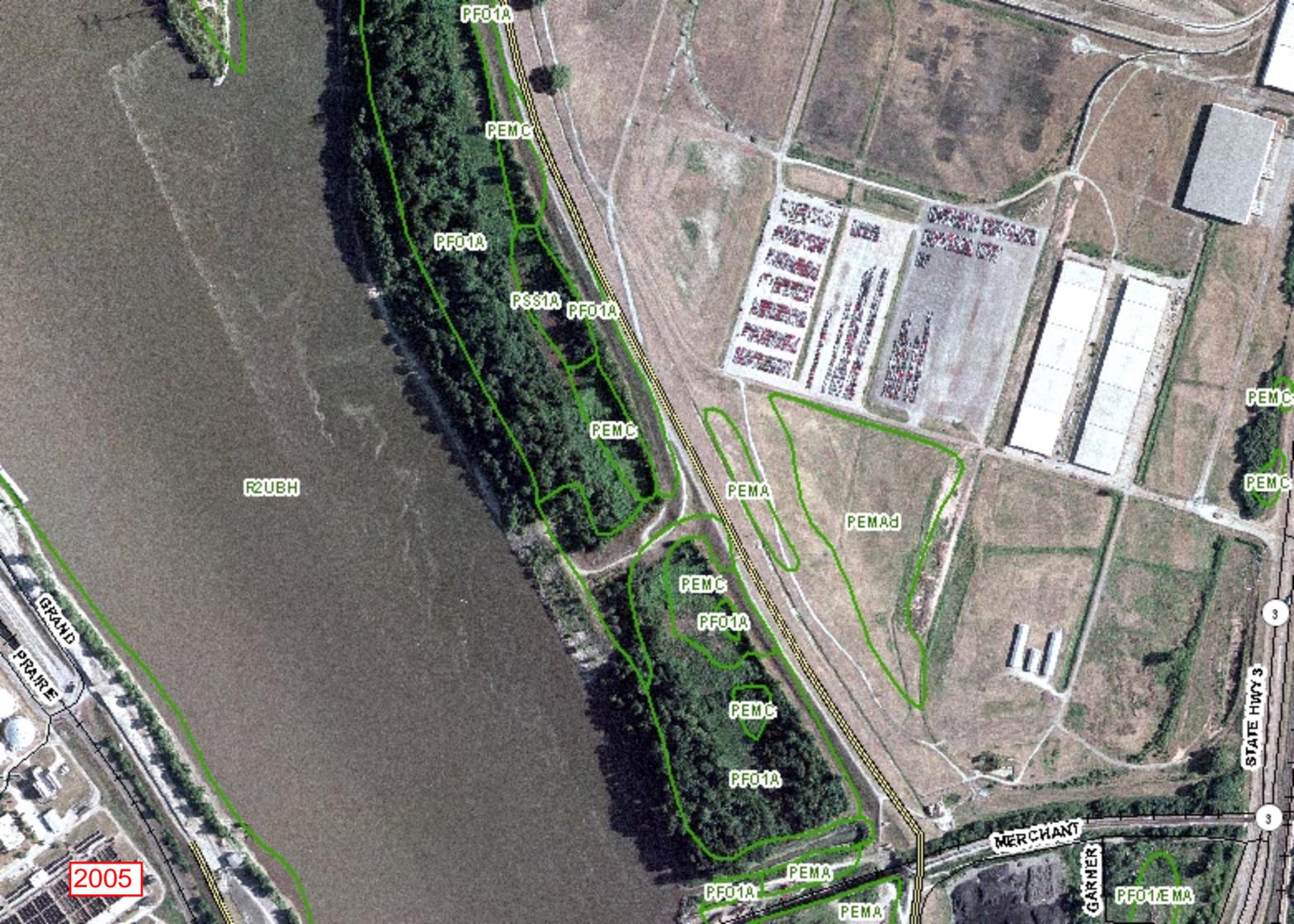
6.0 CONCLUSION AND RECOMMENDATIONS

Geotechnology has performed a waters of the U.S. delineation for the proposed River's Edge South Harbor. The delineation has been performed to assist with avoidance and minimization of impacts for the proposed project. The proposed marginal harbor will facilitate current and future industrial and commercial development at River's Edge. Construction of the marginal harbor will require dredging and fill operations within the project area.

During the delineation the following waters of the U.S. were identified: the Mississippi River, a USACE Relief Well Drainageway, a primary Drainageway to the Mississippi River, two Emergent Wetlands, three Forested Wetlands, and a Scrub-Shrub Wetland. Approximately 5,486 LF of jurisdictional watercourses and approximately 31.48 acres of wetlands were identified within the project boundaries. Impacts to waters of the U.S. within the project area will require approval and permitting by the USACE, the IEPA, and the IDNR. Impact assessments and permit applications for the project will be submitted by others under separate cover.

APPENDIX A

USACE/NWI AERIAL PHOTOGRAPHS



2005

PF01A

PEMC

PF01A

P3S1A

PF01A

PEMC

R2UBH

PEMA

PEMAAd

PEMC

PEMC

GRAND

PRAIRIE

PEMC

PF01A

PEMC

PF01A

3

9

STATE HWY 3

MERCHANT

GARNER

PF01A

PEMA

PEMA

PF01/EMA



P3S1A

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PEMC

PFO1A

PEMC

PFO1A

PEMA

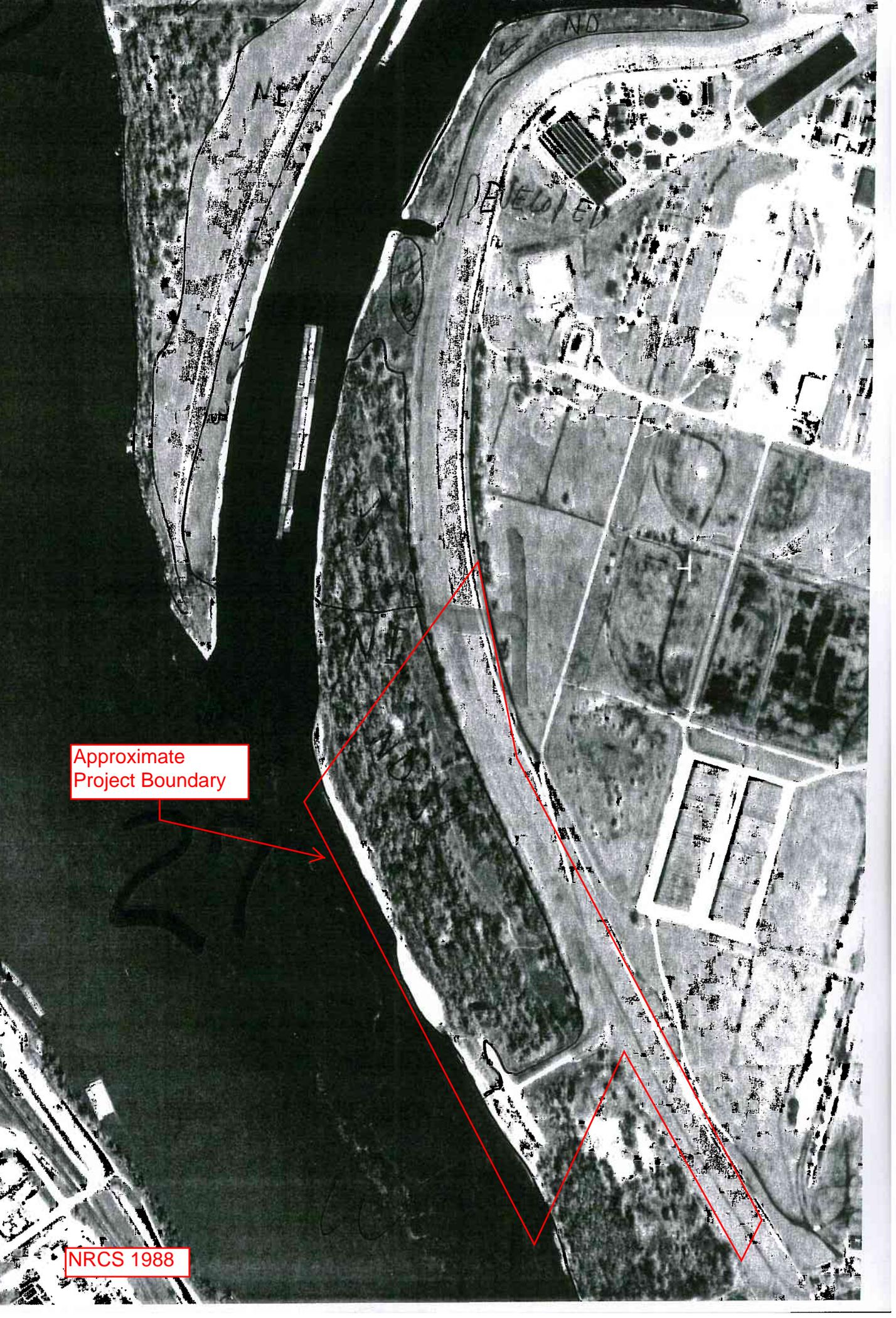
PFO1A

PEMA

2006

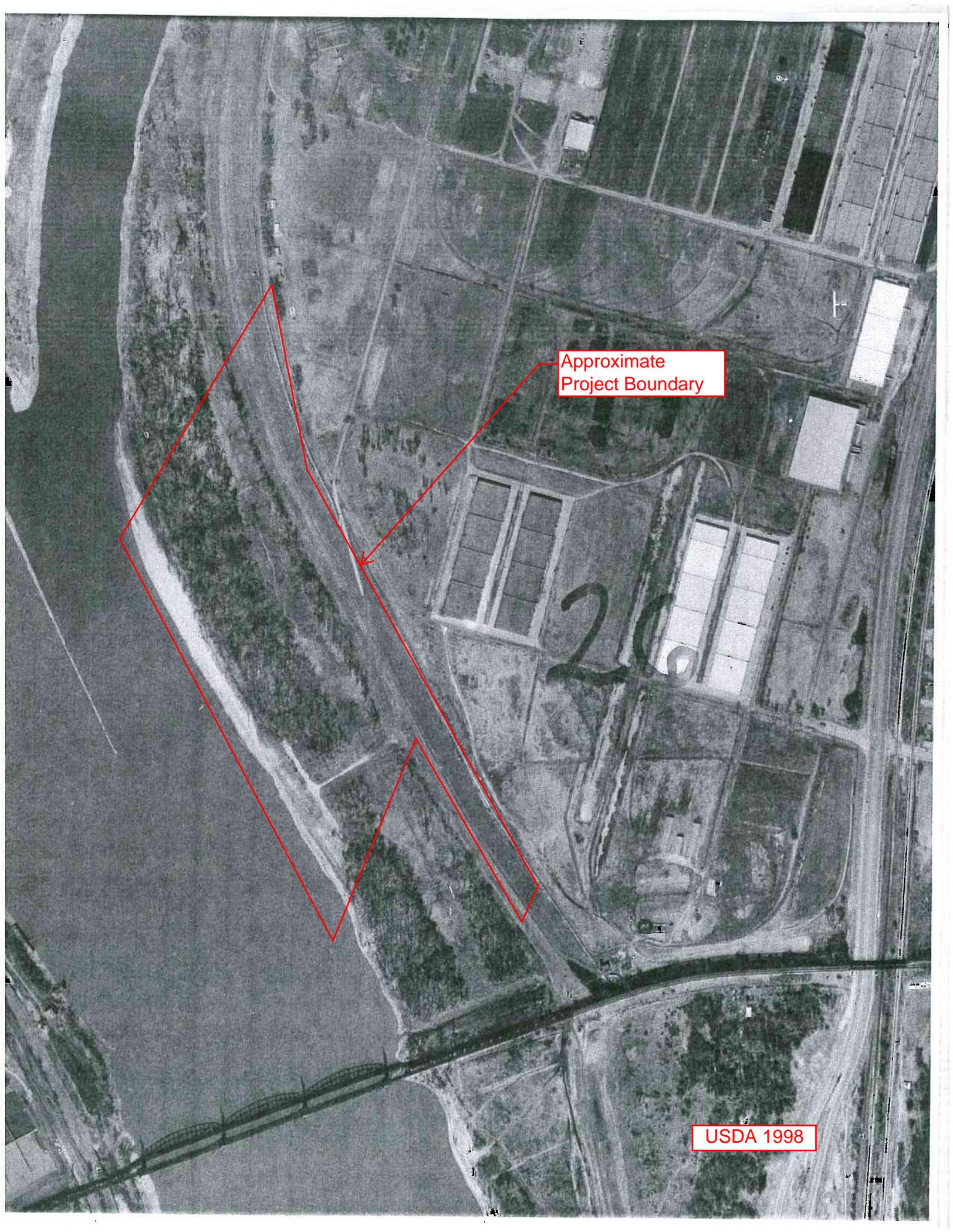
APPENDIX B

USDA/NRCS AERIAL PHOTOGRAPHS



Approximate
Project Boundary

NRCS 1988



Approximate
Project Boundary

20

USDA 1998

APPENDIX C

RIVER GAGE INFORMATION

**National Weather Service
Advanced Hydrologic Prediction Service**
www.weather.gov/ahps/

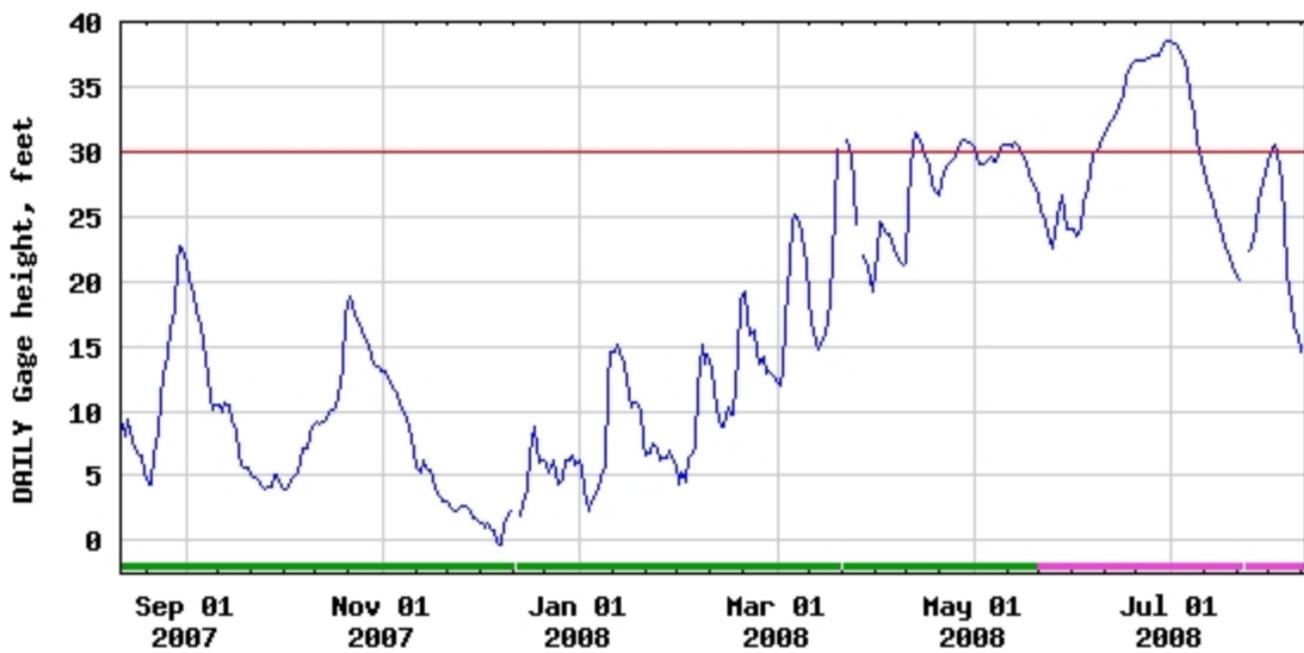


Observations courtesy of [US Geological Survey](http://www.usgs.gov/) .

NOTE: River forecasts for this location take into account past precipitation and the precipitation amounts expected approximately 24 hours into the future from the forecast issuance time.

Forecasts for the Mississippi River at St. Louis are issued routinely year-round.

USGS 07010000 Mississippi River at St. Louis, MO



- Daily observation at 8:00 am gage height
- Period of approved data
- Period of provisional data
- National Weather Service Floodstage

Mississippi River at L&D 27 (Lower)

Stream Name: Mississippi Longitude: -90.17516660
Gage Zero: 350.00 Ft. NGVD 1929 Latitude: 38.70200000
Record High Stage : 82.80 Ft. River Mile: 185.1 mile above the mouth
of the Ohio River
Drainage Area - 696910.00 Mi²
Record High Stage Date: 08/01/1993
Location of Gage:

In lower end of guide wall, at mile 185.1 above the mouth of the Ohio River

This gage is owned, operated, and maintained by the St. Louis District, Corps of Engineers.

Central Time Zone

Date / Time	Stage (Ft)	Cumulative Precipitation (In)
8/11/2008 12:00	44.24	30.83
8/4/2008 12:00	59.06	30.58
7/28/2008 12:00	58.32	28.94
7/21/2008 12:00	52.01	26.54
7/14/2008 12:00	58	26.54
7/6/2008 12:00	68.51	25.57
6/30/2008 12:00	71.66	24.49
6/23/2008 12:00	70.1	24.42
6/16/2008 12:00	67.63	24.09
6/9/2008 12:00	63	23.98
6/2/2008 12:00	55.64	21.46
5/26/2008 12:00	56.38	20.28
5/19/2008 12:00	60.09	18.27
5/12/2008 12:00	63.07	17.98
5/5/2008 12:00	62.14	14.99
4/28/2008 12:00	63.81	14.74
4/21/2008 12:00	60.45	14.08
4/14/2008 12:00	63.98	13.57
4/7/2008 12:00	54.19	12.13
3/31/2008 12:00	51.48	10.64
3/24/2008 12:00	61.85	8.74
3/17/2008 12:00	49.47	5.6
3/10/2008 12:00	53.55	5.43
3/3/2008 12:00	46.15	5.28
2/25/2008 12:00	45.68	4.7

US Army Corps of Engineers - St. Louis District - Water Control Center - Contact Us

Information borrowed from USACE's online tabular data at RiverGages.com
<http://www2.mvr.usace.army.mil/WaterControl/new/layout.cfm>

APPENDIX D

HISTORICAL PHOTOGRAPHS





Granite City Engr. Depot

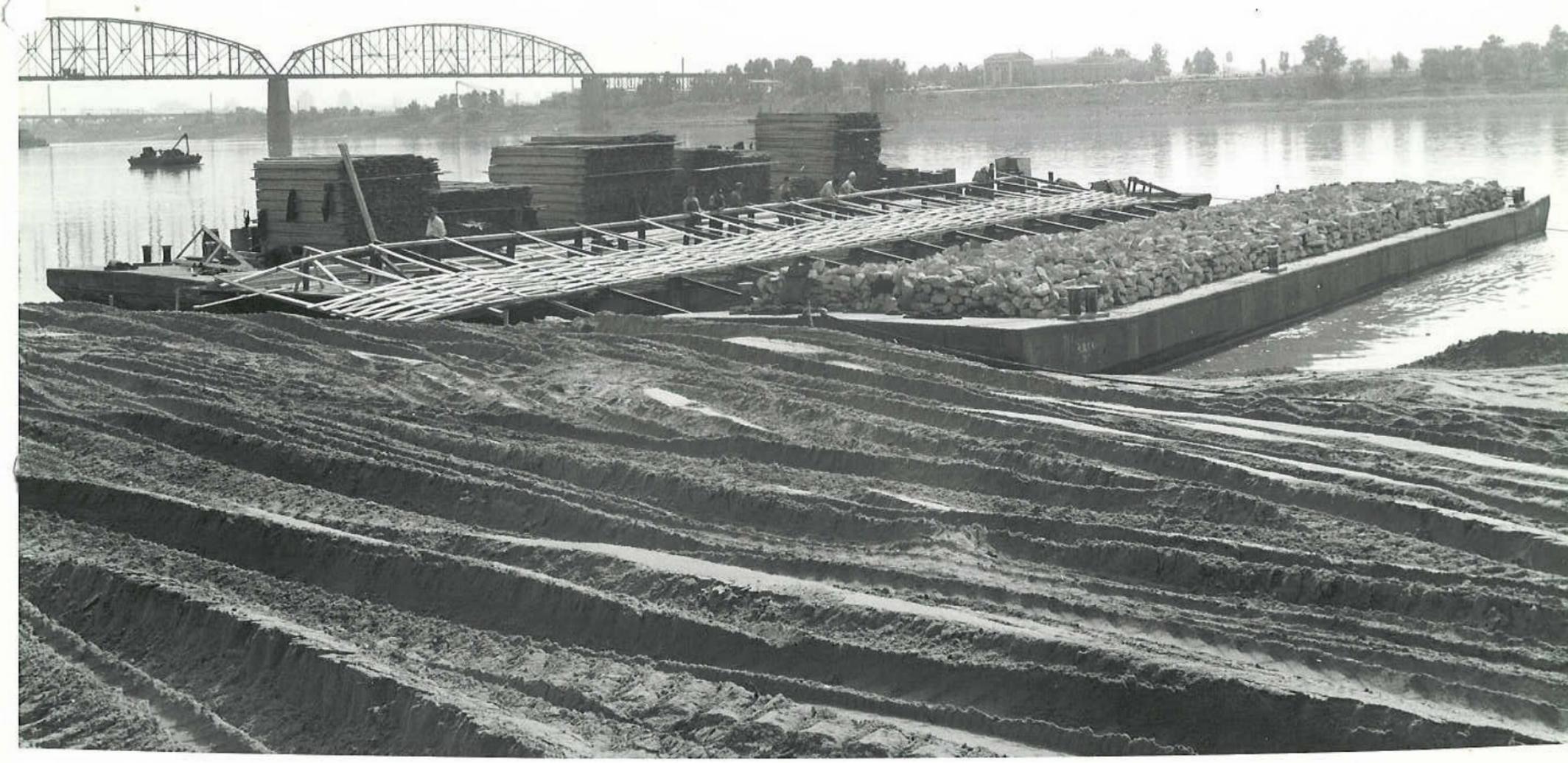
Sept. 15, 1943

Closeup looking S. showing workmen laying cobblestone for the wharf. Landcaster Corp. Contract #W-2791-eng-61. Work commenced June 5, 1943.

Granite City, Illinois

Photo No. K-85







APPENDIX E

TCRPD AERIAL PHOTOGRAPHS



Photo taken March 21, 2008, during flood event. Water levels 3 feet higher than ordinary high water elevation. Depressional areas of site circled in red.



Photo of Project Area
August 11, 2008

APPENDIX F

SITE PHOTOGRAPHS



Photograph 1 ↑ - View of Mississippi River, facing upstream. Confluence with Chain of Rocks Canal, visible in background. Photo taken 8-19-08.



Photograph 2 ↑ - View of Mississippi River, facing downstream. Merchant's Bridge in background. Photo taken 8-19-08



Photograph 3 ↑ - View of U.S. Army Corps of Engineers' (USACE) Relief Well Drainageway, facing north, levee to left. River's Edge development to right. Relief well cap is visible in foreground. Photo taken 9-17-08.



Photograph 4 ↑ - View of Drainageway, facing east. Emergent Wetland 1 (out of boundaries) is visible in background. Photo taken 8-19-08.



Photograph 5 ↑ - View of Emergent Wetland 1, facing southwest along southern boundary. Photo taken 8-14-08.



Photograph 6 ↑ - View along southern slope of Wharf Road, facing west. Emergent Wetland 1 to left. Forested Wetland 1 top left. CMPSC wharf in open area of background. Photo taken 8-14-08.



Photograph 7 ↑ - View of Emergent Wetland 2 near S21, facing southwest. Wharf Road visible in background to left. Forested Wetland 3 in background to right. Photo taken 8-15-08.



Photograph 8 ↑ - View of Emergent Wetland 2, facing south. Forested Wetland 2 to left and Forested Wetland 3 in top right background. Photo taken 8-15-08.



Photograph 9 ↑ - View of Emergent Wetland 2 (center) and Forested Wetland 2 (right), facing south. Levee to left. Photo taken 8-19-08.



Photograph 10 ↑ - View of Emergent Wetland 2 (center) and Scrub-Shrub Wetland (left), facing north. Levee to right. Photo taken 8-19-08.



Photograph 11 ↑ - View of Emergent Wetland 2 (left) and Forested Wetland 3 (right) boundary between, facing south. Wharf Road visible in background. Photo taken 8-19-08.



Photograph 12 ↑ - View of sediment marks on cottonwood approximately 15-16 feet high in Forested Wetland 1, facing north along boundary with Emergent Wetland 1 (right). Vehicle in background on Wharf Road. Photo taken 8-14-08.



Photograph 13 ↑ - View of concrete rubble and fill piles on slope of CMPSC wharf near boundary of wharf and Forested Wetland 1, facing south. Photo taken 8-15-08.



Photograph 14 ↑ - View of Forested Wetland 1, near its boundary with CMPSC wharf, facing east. Photo taken 8-15-08.



Photograph 15 ↑ - View of Forested Wetland 3 near S39, facing east. Photo taken 8-19-08.



Photograph 16 ↑ - View along top of levee facing north. USACE Relief Well Drainageway is visible to the right. Photo taken 8-14-08.



Photograph 17 ↑ - View of CMPSC Wharf, facing north. Photo taken 8-14-08.



Photograph 18 ↑ - View of cobblestone remnants on CMPSC Wharf, facing north. Photo taken 8-14-08.



Photograph 19 ↑ - View of boundary of CMPSC Wharf (foreground) and Forested Wetland 1 (background), facing south. Photo taken 8-14-08.



Photograph 20 ↑ - View of remaining gravel on CMPSC Wharf, facing south. Photo taken 8-19-08.

APPENDIX G

WETLAND DATA FORMS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 14, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Emergent wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S1 -In</u>

VEGETATION

Dominant Plant Species – Adjacent Vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Polygonum hydropiperoides – swamp smartweed*</u>	Herb	OBL	8		
2 <u>Cephalanthus occidentalis – buttonbush</u>	Shrub	OBL	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: *No vegetation observed due to recent flooding - Adjacent vegetation listed.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 4/2	10 YR 4/4	Few/faint	Sic; sbk
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks:					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 14, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – Toe of Wharf Road</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S2 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Helianthus annuus</i> – common sunflower	Herb	FAC-	8		
2 <i>Ipomoea pandurata</i> – wild potato vine	Herb	FACU	9		
3 <i>Amaranthus albus</i> – pigweed	Herb	FACU	10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (due to recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – <i>Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois</i> . Sediment deposits not indicative of field observations.	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? _____				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-4		10 YR 2/2			Sandy sicl; gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: Boring refusal at 4 inches.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Hydric Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Remarks: _____					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – Toe of Wharf Road</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S3 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Gledistia triacanthos</i> – honeylocust	Tree	FAC	8		
2 <i>Morus alba</i> – white mulberry	Shrub	FAC	9		
3 <i>Convolvulus arvensis</i> – field bindweed	Herb	NI	10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 67%

Remarks: Vegetation not indicative of hydrology and soil data.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment deposits not indicative of field observations.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-4		10 YR 4/1			Sandy sicl; gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Boring terminated at 4 inches.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Hydric Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Remarks: _____					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S4 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Morus alba – white mulberry</u>	<u>Shrub</u>	<u>FAC</u>	<u>8</u>		
2 <u>Polygonum hydropiperoides – swamp smartweed</u>	<u>Herb</u>	<u>OBL</u>	<u>9</u>		
3 _____			<u>10</u>		
4 _____			<u>11</u>		
5 _____			<u>12</u>		
6 _____			<u>13</u>		
7 _____			<u>14</u>		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>12</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? _____				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-12		10 YR 2/1			Sic1; sbk-gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Boring refusal at 12 inches.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – Slope of CMPSC Wharf</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S5 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Morus alba – white mulberry</u>	<u>Shrub</u>	<u>FAC</u>	<u>8</u>		
2			<u>9</u>		
3			<u>10</u>		
4			<u>11</u>		
5			<u>12</u>		
6			<u>13</u>		
7			<u>14</u>		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Vegetation not indicative of hydrology and soil data.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment deposits not indicative of field observations.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? _____				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-4		10 YR 3/2			Sandy sicl:gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Boring refusal at 4 inches.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Hydric Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Remarks: _____					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S6 -In</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Populus deltoides – cottonwood</u>	<u>Tree</u>	<u>FAC+</u>	<u>8</u>		
2 <u>Acer saccharinum – silver maple</u>	<u>Tree</u>	<u>FACW</u>	<u>9</u>		
3			<u>10</u>		
4			<u>11</u>		
5			<u>12</u>		
6			<u>13</u>		
7			<u>14</u>		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? _____				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 2/1			Sic; sbk
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks: _____	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 14, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S7 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Betula nigra</i> – river birch	Tree	FACW	8		
2 <i>Acer saccharinum</i> – silver maple	Tree	FACW	9		
3 <i>Morus alba</i> – white mulberry	Tree	FAC	10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 3/2	10 YR 3/4	Common/distinct	Sic; sbk
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: _____					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 14, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Emergent Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S8 -In</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Polygonum hydropiperoides</i> – swamp smartweed*</u>	Herb	OBL	8		
2 <u><i>Cephalanthus occidentalis</i> – buttonbush*</u>	Shrub	OBL	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: *No vegetation due to recent flooding – vegetation listed is adjacent.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>6</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? Circle No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6		10 YR 3/1			
6-18		10 YR 3/1	10 YR 3/3	Few/distinct	Sic; sbk
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks:					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks:					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – Just in treeline of CMPSC Wharf</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S9 -Out</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Morus alba – white mulberry (sapling)</u>	Shrub	FAC	8		
2 <u>Gleditsia triacanthos – honeylocust (sapling)</u>	Shrub	FAC	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Vegetation not indicative of hydrology and soil data.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands
<p>Field Observations:</p> Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	<p>Secondary Indicators (2 or more required):</p> <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)

Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment deposits not indicative of field observations.

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u>
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? Circle No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6		10 YR 2/1			Sicl; gr

Hydric Soil Indicators:		
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)

Remarks: Boring refusal at 6 inches.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Remarks: _____

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 14, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – CMPSC Wharf</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S10 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Panicum virgatum – switchgrass</u>	Herb	FAC+	8		
2 <u>Sorghum halepense – johnsongrass</u>	Herb	FACU	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines (flood debris) <input checked="" type="checkbox"/> Sediment Deposits (due to recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment deposits and drift lines not indicative of field observations.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? _____				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-4		10 YR 3/3			Sand; gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Boring refusal at 4 inches.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 14, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – Inside treeline of CMPSC Wharf</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S11 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Populus deltoides – cottonwood</u>	Tree	FAC+	8		
2 <u>Acer saccharinum – silver maple</u>	Tree	FACW	9		
3 <u>Morus alba – white mulberry</u>	Tree	FAC	10		
4 <u>Betula nigra – river birch</u>	Tree	FACW	11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines (flood debris) <input checked="" type="checkbox"/> Sediment Deposits (due to recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – <i>Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois</i> . Drift lines and sediment deposits not indicative of field observations.	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: PD				
Taxonomy (Subgroup): <u>Typic Udifluent</u>	Field Observations Confirm Mapped Type? Circle No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4		10 YR 3/3			Sand; gr
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Concretions <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Other (explain in remarks)					
Remarks: Boring refusal at 4 inches.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Hydric Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Remarks: _____					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S12 -In</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Morus alba – white mulberry</u>	<u>Tree</u>	<u>FAC</u>	<u>8</u>		
2			<u>9</u>		
3			<u>10</u>		
4			<u>11</u>		
5			<u>12</u>		
6			<u>13</u>		
7			<u>14</u>		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines (flood debris) <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? _____				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		<u>10 YR 3/3 (sand)</u>	<u>10 YR 3/1 (silt-clay)</u>	<u>Common/distinct</u>	<u>Sand/sicl; gr/sbk-gr</u>
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Sample exhibited a sand matrix with silt-clay mottles.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: _____					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 14, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S13 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Populus deltoides – cottonwood</u>	<u>Tree</u>	<u>FAC+</u>	<u>8</u>		
2 <u>Acer saccharinum – silver maple</u>	<u>Tree</u>	<u>FACW</u>	<u>9</u>		
3			<u>10</u>		
4			<u>11</u>		
5			<u>12</u>		
6			<u>13</u>		
7			<u>14</u>		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 3/2	10 YR 3/3	Few/faint	Sic1; sbk-gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks: _____	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S14 -In</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Morus alba – white mulberry</u>	Tree	FAC	8		
2 <u>Acer saccharinum – silver maple</u>	Tree	FACW	9		
3 <u>Polygonum persicaria – spotted ladythumb</u>	Herb	FACW	10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-5		10 YR 3/1			Sic1; sbk-gr
5-18		10 YR 4/2			Sandy sic1; gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks: _____	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S15 -In</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Salix nigra – black willow</u>	Tree	OBL	8		
2 <u>Acer saccharinum – silver maple</u>	Tree	FACW	9		
3 <u>Betula nigra – river birch</u>	Tree	FACW	10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
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Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 4/3 (sand)	10 YR 3/1 (clay)	Common/distinct	Sand/clay; gr/sbk

Hydric Soil Indicators:		
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)

Remarks: Soil sample exhibited a sand parent material with clay mottles.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			

Remarks: _____

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – Riverbank of CMPSC Wharf</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S16 -Out</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Salix nigra – black willow</u>	Tree	OBL	8		
2			9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Salix nigra was observed to be sparsely growing on bank of CMPSC Wharf; however, very little vegetation was observed growing on wharf bank as rock and cobblestone are still present.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines (food debris) <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Drift lines and sediment deposits not indicative of field observations.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u>				
Taxonomy (Subgroup): <u>Typic Udifluent</u>	Field Observations Confirm Mapped Type? <u>No</u>				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-6		10 YR 3/1 (silt)	10 YR 4/2 (sand)	Common/distinct	Sandy silt; gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Boring refusal at 6 inches.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Hydric Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Remarks: <u>Sample taken at southern edge of CMPSC Wharf bank at approximate elevation of 402.5 feet.</u>					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Emergent wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S17 -In</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Amaranthus albus – pigweed</u>	Herb	FACU	8		
2 <u>Apocynum cannabinum – Indian hemp</u>	Herb	FAC	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? _____				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 2/1			Sic1; sbk-gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – Toe of Wharf Road</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S18 -Out</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Amaranthus albus – pigweed</u>	Herb	FACU	8		
2 <u>Campsis radicans – trumpet vine</u>	Vine	FAC*	9		
3 <u>Ipomoea pandurata – wild potato vine</u>	Herb	FACU	10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 33%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment marks not indicative of field observations.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: SWED Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-4		10 YR 3/2			Sic1; gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Boring refusal at 4 inches.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Emergent wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S19 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Polygonum hydropiperoides – swamp smartweed</u>	<u>Herb</u>	<u>OBL</u>	<u>8</u>		
2			<u>9</u>		
3			<u>10</u>		
4			<u>11</u>		
5			<u>12</u>		
6			<u>13</u>		
7			<u>14</u>		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>12</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
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Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment marks from recent floods, but not indicative of vegetation or soil data.

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: <u>PD</u> Circle
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
<u>0-12</u>		<u>10 YR 2/2</u>			<u>Sic; sbk</u>

Hydric Soil Indicators:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Histic Epipedon | <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input checked="" type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Sulfidic Odor | <input checked="" type="checkbox"/> Concretions | <input checked="" type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Organic Streaking in Sandy Soils | <input type="checkbox"/> Other (explain in remarks) |

Remarks: Boring refusal at 12 inches.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Remarks: _____

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland - levee</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S20 -Out</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Sorghum halepense</i> – johnsongrass</u>	Herb	FACU	8		
2 <u><i>Euphorbia dentata</i> – toothed spurge</u>	Herb	NI	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment marks not indicative of field observations.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Orthents, loamy, hilly</u>	Drainage Class: <u>WD</u> Circle No				
Taxonomy (Subgroup): <u>Udorthent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-3		10 YR 2/1			Sic1; gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Boring refusal at 3 inches.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S21-In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Acer saccharinum – silver maple</u>	Tree	FACW	8		
2 <u>Morus alba – white mulberry</u>	Tree	FAC	9		
3 <u>Cephalanthus occidentalis – buttonbush</u>	Shrub	OBL	10		
4 <u>Polygonum hydropiperoides – swamp smartweed</u>	Herb	OBL	11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>16</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 2/1			Sic; sbk
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland - levee</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S22 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Sorghum halepense – johnsongrass</u>	Herb	FACU	8		
2 <u>Ephorbia dentata – toothed spurge</u>	Herb	NI	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – <i>Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois</i> . Sediment deposits from recent flooding; however, not indicative of vegetation and soil data.	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Orthents, loamy, hilly</u>	Drainage Class: WD				
Taxonomy (Subgroup): <u>Udorthent</u>	Field Observations Confirm Mapped Type? Circle No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4		10 YR 2/2			Sicl; gr
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Concretions <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Other (explain in remarks)					
Remarks: Boring refusal at 4 inches.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Hydric Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Remarks: _____					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Emergent wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S23 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Phyla lanceolata – fogfruit</u>	Herb	OBL	8		
2 <u>Polygonum hydropiperoides – swamp smartweed</u>	Herb	OBL	9		
3 <u>Cyperus strigosus – strawcolored flatsedge</u>	Herb	FACW	10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>17</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-10		10 YR 2/1			sicl; sbk-gr
10-16		10 YR 2/1			Sandy sicl; gr
16-18		10 YR 3/1	10 YR 6/6 (sand)	Common/distinct	Sicl/sand; sbk-gr/gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S24 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Acer saccharinum – silver maple</u>	<u>Tree</u>	<u>FACW</u>	<u>8</u>		
2 <u>Morus alba – white mulberry</u>	<u>Tree</u>	<u>FAC</u>	<u>9</u>		
3			<u>10</u>		
4			<u>11</u>		
5			<u>12</u>		
6			<u>13</u>		
7			<u>14</u>		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>17</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-5		<u>10 YR 2/1</u>			<u>sicl; sbk-gr</u>
5-18		<u>10 YR 4/1</u>			<u>Sandy sicl; gr</u>
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 14, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Emergent wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S25 -In</u>

VEGETATION

Dominant Plant Species – Adjacent vegetation	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Polygonum hydropiperoides</i> - swamp smartweed*</u>	Herb	OBL	8		
2			9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: No vegetation observed due to recent flooding – listed vegetation is adjacent.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>16</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines (due to recent flooding) <input checked="" type="checkbox"/> Sediment Deposits (due to recent floods) <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – <i>Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</i></u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 2/1			Sic1; sbk-gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks:					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks:					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland - levee</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S26 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u><i>Sorghum halepense</i> – johnsongrass</u>	Herb	FACU	8		
2 <u><i>Euphorbia dentata</i> – toothed spurge</u>	Herb	NI	9		
3 <u><i>Croton capitatus</i> – wholly croton</u>	Herb	NI	10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – <i>Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois</i> . Sediment deposits from recent flooding, but not indicative of vegetation and soil data.	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Orthents, loamy, hilly</u>	Drainage Class: WD Circle				
Taxonomy (Subgroup): <u>Udothent</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6		10 YR 3/2			sil; gr
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Concretions <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Other (explain in remarks)					
Remarks: Boring refusal at 6 inches.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Hydric Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Remarks: _____					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Emergent wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S27 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Phyla lanceolata – fogfruit</u>	<u>Herb</u>	<u>OBL</u>	8		
2			9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>6</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 3/1			Sandy sicl; sbk-gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: _____		

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S28 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Morus alba</i> – white mulberry	Tree	FAC	8		
2 <i>Salix nigra</i> – black willow	Tree	OBL	9		
3 <i>Acer Saccharinum</i> – silver maple	Tree	FACW	10		
4 <i>Polygonum hydropiperoides</i> – swamp smartweed	Herb	OBL	11		
5 <i>Polygonum persicaria</i> – spotted ladysthumb	Herb	FACW	12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – <i>Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</i>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 3/1			Sic; sbk
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: _____					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland - levee</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S29 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Sorghum halepense – johnsongrass</u>	Herb	FACU	8		
2 <u>Euphorbia dentata – toothed spurge</u>	Herb	NI	9		
3 <u>Ipomoea pandurata – wild potato vine</u>	Herb	FACU	10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
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Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – *Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois*. Sediment deposits not indicative of field observations.

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Orthents, loamy, hilly</u>	Drainage Class: <u>WD</u> Circle No				
Taxonomy (Subgroup): <u>Udorthent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-2		10 YR 2/1			Sic1; gr

Hydric Soil Indicators:		
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)

Remarks: Boring refusal at 2 inches.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Hydric Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Emergent wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S30 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Phyla lanceolata – fogfruit</u>	<u>Herb</u>	<u>OBL</u>	8		
2			9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>6</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: <u>PD</u> Circle No				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? _____				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 2/1	10 YR 3/3	Few/faint	Sic; sbk
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks: _____	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S31 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Acer saccharinum – silver maple</u>	Tree	FACW	8		
2 <u>Populus deltoides – cottonwood</u>	Tree	FAC+	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>6</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
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Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-10		10 YR 3/1	10 YR 3/3	Common/distinct	Sic; sbk
10-18		10 YR 3/2			Sandy sic; gr

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)

Remarks: _____

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Remarks: _____

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Scrub-shrub wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S32 -ln</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Morus alba – white mulberry</u>	<u>Shrub</u>	<u>FAC</u>	<u>8</u>		
2 <u>Vitis spp. – wild grape vine</u>	<u>Vine</u>	<u>NI</u>	<u>9</u>		
3			<u>10</u>		
4			<u>11</u>		
5			<u>12</u>		
6			<u>13</u>		
7			<u>14</u>		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
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Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-10		<u>10 YR 3/1</u>	<u>10 YR 3/3</u>	<u>Common/distinct</u>	<u>Sic; sbk</u>
10-18		<u>10 YR 3/2</u>			<u>Sandy sic; gr</u>

Hydric Soil Indicators:		
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)

Remarks: _____

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Remarks: _____

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – slope of Wharf Road</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S33 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Convolvulus arvensis – field bindweed</u>	<u>Herb</u>	<u>NI</u>	8		
2			9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment deposits not indicative field observations.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? _____				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-6		10 YR 3/2			Sic1; gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Boring refusal at 6 inches.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S34 -ln</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Acer saccharinum – silver maple</u>	Tree	FACW	8		
2 <u>Morus alba – white mulberry</u>	Tree	FAC	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u>				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? <u>Circle No</u>				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 3/1			Sandy sicl; sbk-gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S35 -ln</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Acer saccharinum – silver maple</u>	<u>Tree</u>	<u>FACW</u>	8		
2			9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)

Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u>				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type? <u>Circle No</u>				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 3/1			Sandy sicl; sbk-gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks: _____	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – slope of Wharf Road</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S36 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Morus alba – white mulberry</u>	<u>Tree</u>	<u>FAC</u>	8		
2			9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Vegetation not indicative of field observations.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment deposits not indicative of field observations.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-6		10 YR 3/2			Sandy sicl; gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Boring refusal at 6 inches.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S37 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Morus alba – white mulberry</u>	Tree	FAC	8		
2 <u>Acer saccharinum – silver maple</u>	Tree	FACW	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Beaucoup silty clay loam</u>	Drainage Class: PD Circle				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquoll</u>	Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 2/2	10 YR 5/4 (sand)	Common/distinct	Sic/sand; sbk/gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Sample appears to be clay with sand mottles.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: _____		

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – slope of CMPSC Wharf</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S38 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Morus alba</i> – white mulberry	Tree	FAC	8		
2 <i>Acer saccharinum</i> – silver maple	Tree	FACW	9		
3 <i>Sorghum halepense</i> – johnsongrass	Herb	FACU	10		
4 <i>Vitis spp.</i> – wild grape	Vine	NI	11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks: Vegetation not indicative of field observations.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
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Remarks: Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment deposits not indicative of field observations.

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-3		10 YR 4/3			Sand/gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			

Remarks: Boring refusal at 3 inches.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks: _____

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S39 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Salix nigra – black willow</u>	Tree	OBL	8		
2 <u>Acer saccharinum – silver maple</u>	Tree	FACW	9		
3			10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 4/1	7.5 YR 4/6	Common/distinct	Sic1; sbk-gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Forested wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S40 -In</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Populus deltoides – cottonwood</u>	<u>Tree</u>	<u>OBL</u>	<u>8</u>		
2 <u>Acer saccharinum – silver maple</u>	<u>Tree</u>	<u>FACW</u>	<u>9</u>		
3			<u>10</u>		
4			<u>11</u>		
5			<u>12</u>		
6			<u>13</u>		
7			<u>14</u>		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>>18</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-10		<u>10 YR 4/2</u>	<u>7.5 YR 4/6</u>	<u>Common/distinct</u>	<u>Sic; sbk</u>
10-18		<u>10 YR 3/3</u>			<u>Sand; gr</u>
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: _____					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: _____			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>River's Edge South Harbor</u>	Date: <u>August 15, 2008</u>
Applicant/Owner: <u>Tri-City Regional Port District</u>	County: <u>Madison</u>
Investigator: <u>Geotechnology, Inc.</u>	State: <u>Illinois</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland – Bank of CMPSC Wharf</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is Area a Potential Problem Area? <i>(if needed, explain on reverse)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>S41 -Out</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Sorghum halepense – johnsongrass</u>	Herb	FACU	8		
2 <u>Panicum virgatum – switchgrass</u>	Herb	FAC+	9		
3 <u>Lonicera maackii – bush honeysuckle</u>	Shrub	NI	10		
4			11		
5			12		
6			13		
7			14		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 33%

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>none</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits (from recent floods) <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>Recorded data for the area (stream gauge and aerial photographs) included in Geotechnology report – Natural Systems Assessment: Waters of the United States Delineation, South Harbor Dredging Project, Granite City, Illinois. Sediment deposits not indicative of field observations.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Mapped as Rocher loam</u>	Drainage Class: <u>SWED</u> Circle No				
Taxonomy (Subgroup): <u>Typic Udifluvent</u>	Field Observations Confirm Mapped Type?				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-4		10 YR 3/2	10 YR 5/6 (sand)	Common/distinct	Sicl/sand; sbk-gr/gr
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Boring refusal at 4 inches.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: _____			

APPENDIX H

WETLAND INDICATOR STATUS SHEET

Wetland Indicator Status Sheet

Adapted from the United States Department of Agriculture, Natural Resources Conservation Services' PLANTS database.

Data and definitions in the PLANTS wetland reports are abstracted from:

U.S. Fish and Wildlife Service. 1988. National list of vascular plant species that occur in wetlands.

U.S. Fish & Wildlife Service Biological Report 88 (26.9).

U.S. Fish and Wildlife Service. 1993. 1993 supplement to list of plant species that occur in wetlands: Northwest (Region 9). Supplement to U.S. Fish & Wildlife Service Biological Report 88 (26.9).

Indicator categories

Indicator Code	Wetland Type	Comment
OBL	Obligate Wetland	Occurs almost always (estimated probability 99%) under natural conditions in wetlands.
FACW	Facultative Wetland	Usually occurs in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands.
FAC	Facultative	Equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
FACU	Facultative Upland	Usually occurs in non-wetlands (estimated probability 67%-99%), but occasionally found on wetlands (estimated probability 1%-33%).
UPL	Obligate Upland	Occurs in wetlands in another region, but occurs almost always (estimated probability 99%) under natural conditions in non-wetlands in the regions specified. If a species does not occur in wetlands in any region, it is not on the National List.
NA	No agreement	The regional panel was not able to reach a unanimous decision on this species.
NI	No indicator	Insufficient information was available to determine an indicator status.
NO	No occurrence	The species does not occur in that region.

National Indicators reflect the range of estimated probabilities (expressed as a frequency of occurrence) of a species occurring in wetlands versus non-wetland across the entire distribution of the species. A frequency, for example, of 67%-99% (Facultative Wetland) means that 67%-99% of sample plots containing the species randomly selected across the range of the species would be wetland. When two indicators are given, they reflect the range from the lowest to the highest frequency of occurrence in wetlands across the regions in which the species is found. A positive (+) or negative (-) sign was used with the Facultative Indicator categories to more specifically define the regional frequency of occurrence in wetlands. The positive sign indicates a frequency toward the higher end of the category (more frequently found in wetlands), and a negative sign indicates a frequency toward the lower end of the category (less frequently found in wetlands). A question mark (?) following a National Indicator denotes a tentative assignment based on the botanical literature and not confirmed by regional review.

APPENDIX I

LIMITATIONS OF REPORT

WETLANDS DELINEATION LIMITATIONS OF REPORT

1. This report has been prepared on behalf of and for the exclusive use of the addressee, solely for use in a wetlands delineation of the site. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of Geotechnology. Unless other contractual agreements were made, the services described in this report were carried out in accordance with the Terms for Geotechnology's Services which accompanied the proposal.
2. The delineation provided herein is based upon our research and observations during site reconnaissance. Our findings have been prepared for the client solely for a wetland delineation of the project site. This report may be used as part of a submittal to the USACE for confirmation of permit status. Geotechnology, Inc. is not responsible for independent conclusions or recommendations made by others. The United States Army Corps of Engineers (USACE) has final authority deciding whether the proposed activities associated with planned development require permits. Our delineation and recommendations do not supersede any decision made by the USACE.
3. This delineation was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and Geotechnology observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. The findings and conclusions stated herein must be considered not as scientific certainties, but rather as professional opinions concerning the significance of the limited data gathered during the course of the wetland delineation. No other warranties, expressed or implied, are made. Specifically, Geotechnology does not and cannot represent that the site contains no wetlands or other jurisdictional waterbodies beyond that observed by Geotechnology during its site assessment.
4. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedure beyond the scope of described services. Furthermore, such conclusions are based solely on site condition, and rules and regulations, which were in effect, at the time of the study.
5. In preparing this report, Geotechnology has relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to Geotechnology at the time of the site assessment. Although there may have been some degree of overlap in the information provided by these various sources, an attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment was not made.
6. In the event that information is developed relative to wetlands issues at the site and not contained in this report, such information shall be brought to Geotechnology's attention. Geotechnology will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this Report.

7. The purpose of this Report was to present the results of a wetland delineation performed in substantial conformance with the Routine Method presented in the 1987 Federal Wetlands Delineation Manual (Environmental Laboratory, 1987), or other superseding local requirements. No specific attempt was made to check on the compliance of present or past owners or operators of the site with federal, state, or local laws and regulations, environmental or otherwise.

Revised 12/28/07

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