

Wetland and Waterbody Delineation

**PORT OF EAST ST. LOUIS – NORTH CAHOKIA TRACT
SAUGET, ILLINOIS**

October 2013

Prepared for:

TERRA ENGINEERING, LTD.

SCI No. 2013-3194.30

October 23, 2013

Mr. George Ghareeb
Terra Engineering, Ltd.
401 N. Main Street, Suite 1130
Peoria, Illinois 61602

RE: Wetland and Waterbody Delineation
Port of East St. Louis – North Cahokia Tract
Sauget, Illinois
SCI No. 2013-3194.30 Task 200

Dear Mr. Ghareeb:

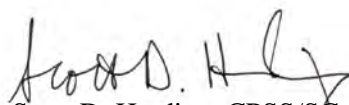
We are pleased to submit our report entitled *Wetland and Waterbody Delineation – PORT OF EAST ST. LOUIS – NORTH CAHOKIA TRACT – SAUGET, ILLINOIS*, dated October 2013. As described in our September 13, 2013 proposal, our field investigation focused on the areas that were suspect for wetland characteristics within the project site boundary, since the project site is located within the Mississippi River 100-year floodplain. Our field investigation identified no wetlands or waterbodies within the project boundaries. However, the USACE has the sole authority to determine if any areas of the site would be under their jurisdiction. SCI is available to assist with the Section 404 and Section 401 Permit application as you advance in your planning of the project.

If you have any questions or concerns, please contact Scott Harding at (618) 206-3041 or sharding@sciengineering.com.

Respectfully,

SCI ENGINEERING, INC.


Michelle Goodare
Wetland Scientist


Scott D. Harding, CPSS/SC
Vice President

JAF/MDG/SDH/tlw

Enclosure

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Wetland and Waterbody Delineation

PORT OF EAST ST. LOUIS – NORTH CAHOKIA TRACT SAUGET, ILLINOIS

1.0 INTRODUCTION

SCI Engineering, Inc. (SCI) was retained by Mr. George Ghareeb of Terra Engineering, Ltd. to conduct a wetland delineation on the referenced site. The scope of the study included performing site reconnaissance to characterize the soils, vegetation, and hydrology for delineation of wetlands and waterbodies. Our services were provided in general accordance with our proposal dated September 13, 2013.

The project site is approximately 12.9 acres. On September 18, 2013, an SCI Wetland Scientist performed a field investigation of the project site to delineate the extent of waterbodies and wetlands within and adjacent to the project limits. No wetlands or waterbodies were identified within the site. Therefore, the proposed project should not require a Section 404 Permit from the U.S. Army Corps of Engineers (USACE) or a Section 401 Water Quality Certification from the Illinois Environmental Protection Agency (IEPA).

2.0 SITE LOCATION

The project area extends along the Metro-East Sanitary District levee and includes property between the levee and railroad tracks, which are located to the east. The subject site extends just south of Monsanto Avenue in Sauget, St. Clair County, Illinois. The proposed project will consist of construction of an access road to serve the future Port of East St. Louis, starting from Illinois Route 3 on the southern portion of the property and running north then west along an elevated rail line through the project site. Adjacent properties are a mix of undeveloped areas and entertainment/commercial/industrial uses. All project development will be within Section 23, Township 2 North, Range 10 West. The *Vicinity and Topographic Map* is enclosed as Figure 1.

3.0 SOIL SURVEY AND TOPOGRAPHIC RESEARCH

According to the Web Soil Survey (WSS), prepared by the Natural Resources Conservation Service (NRCS), the project site is mapped as Urban Land (533) soil type. This soil type is not listed as a hydric soil on the *NRCS National Hydric Soils List: Hydric Soils of the United States* or the St. Clair County Hydric Soils List. The project site is located within the Mississippi River 100-year floodplain.

A U.S. Geological Survey (USGS) Topographic Map and National Wetlands Inventory (NWI) map were reviewed for information concerning the project site. The USGS map is a reproduction of a portion of the USGS topographic map for the *Cahokia, Illinois-Missouri* quadrangle, dated 1993 (photo-revised 1998). Copies of the USGS topographic and NWI maps are enclosed as Figures 1 and 2, respectively. According to these maps, the topography of the project site is relatively level. Surface topography observed on the date of the field investigation appeared to generally coincide with the topography depicted on the USGS map. It was evident that the majority of the project site has been previously disturbed from historical construction of the levee and railroad which brackets the boundaries of the property.

4.0 SITE RECONNAISSANCE AND CONDITION SUMMARY

Since the site is located east of the Mississippi River and within the 100-year floodplain and based on historical topographic maps and the NWI maps, suspect areas on the site were explored for wetland and waterbody characteristics. A photographic summary of the representative site conditions is included as Appendix A. Included in Appendix B are the *Wetland Determination Data Forms - Midwest Region* for the suspect wetland areas. The conditions summarized below are mapped on the *Wetland Delineation and Aerial Photograph*, enclosed as Figure 3.

The site is undeveloped, with the exception of the levee, railroad tracks, and the recently-placed gravel fill that has been placed for an access road (See Appendix A). The site exists between the levee and railroad tracks, which border the site to the east. Monsanto Avenue exists near the southern boundary. Predominant vegetation consists of *Festuca arundinacea*, *Pooideae spp.*, *Ambrosia trifida*, and *Carex alopecuroides*. During our September 18, 2013 site visit, no wetlands or waterbodies were observed within the site boundaries. SCI also surveyed the northern portion of the subject site in 2012. During that site visit, no wetlands were observed within the subject site boundaries.

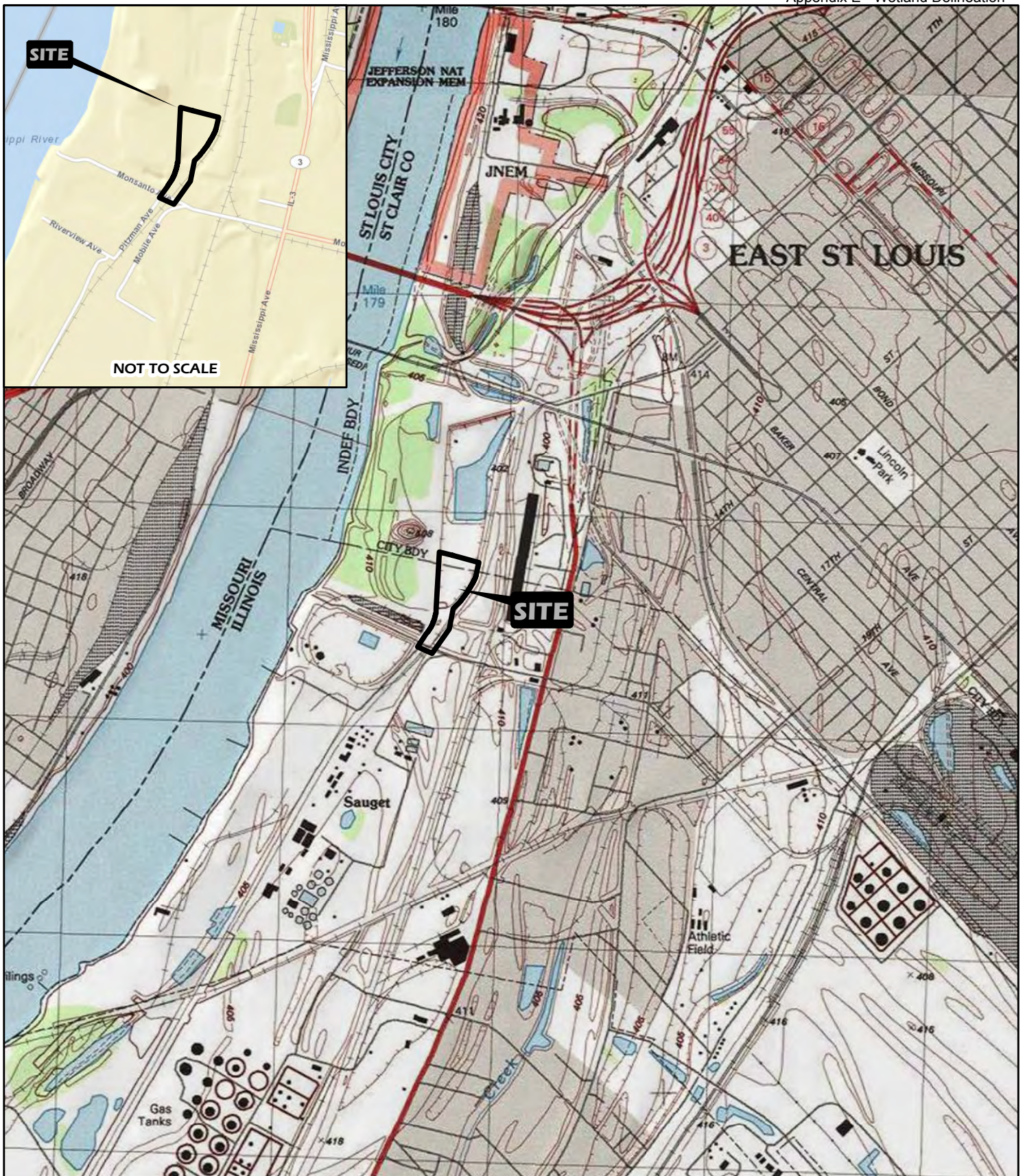
5.0 CONCLUSION


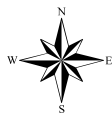
Based on our September 2013 field investigation, no wetlands were identified within the project site. Therefore, a Section 404 Permit from the USACE and a Section 401 Water Quality Certification from the IEPA should not be required. The USACE has the sole authority to determine if wetlands or waterbodies exist on the site.

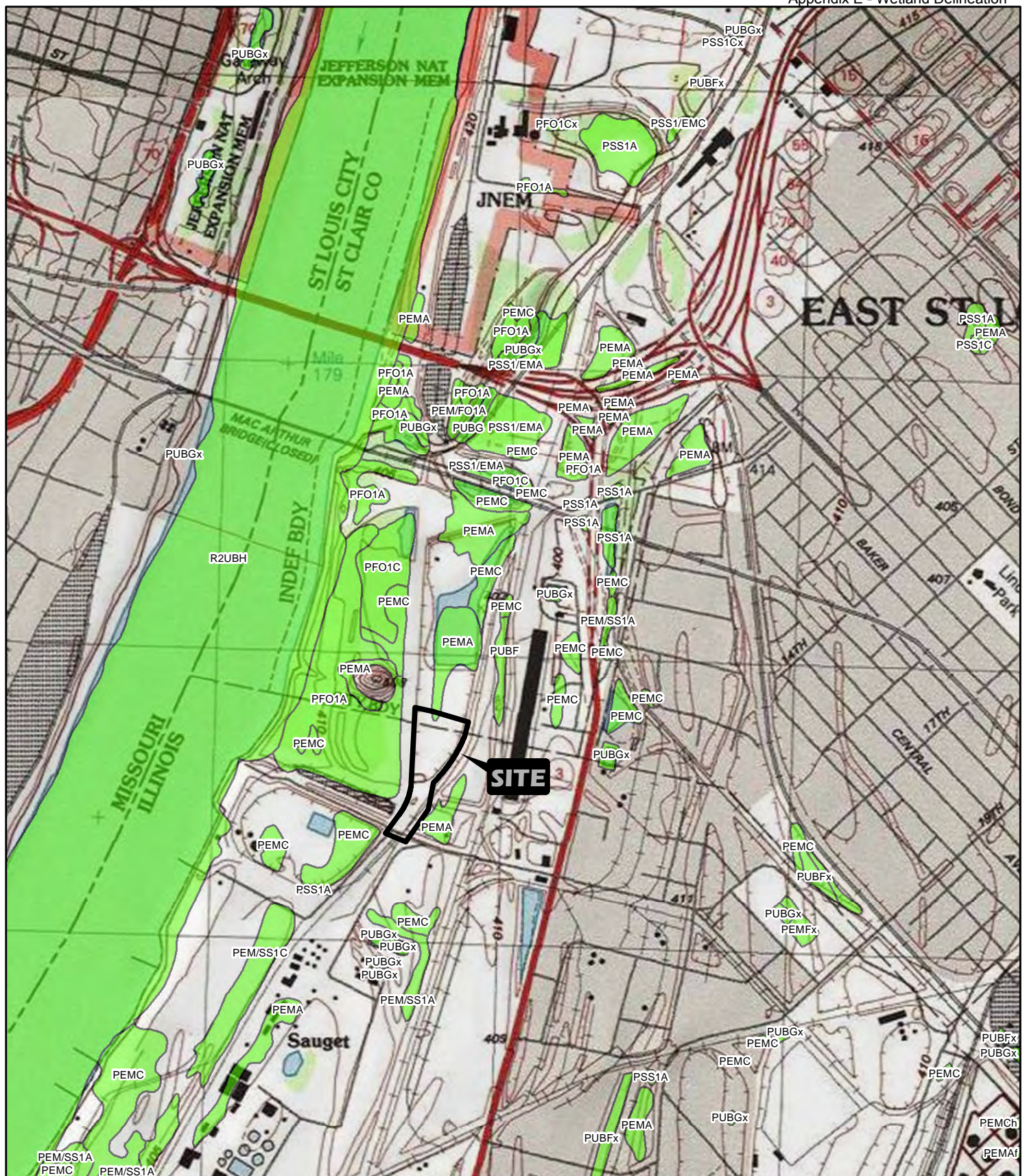
6.0 LIMITATION




This report has been prepared for the exclusive use of Terra Engineering. SCI is not responsible for independent conclusions or recommendations made by others. Furthermore, written consent must be provided by SCI should anyone other than our client wish to excerpt, or rely on the contents of this report. The findings of this report are valid as of the present date of the delineation. SCI is not responsible for surveys, calculations, or plans that were prepared by others.

Changes in surface and subsurface conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, the broadening of knowledge, or other reasons. Accordingly, the findings of this report may be invalidated in whole or in part by changes outside our control.







	PROJECT NAME PORT OF EAST SAINT LOUIS - NORTH CAHOKIA TRACT SAUGET, ILLINOIS			GENERAL NOTES/LEGEND USGS TOPOGRAPHIC MAP CAHOKIA, ILLINOIS QUADRANGLE DATED 1998 10' CONTOURS	 SCALE 1" = 2000' FIGURE 1	
	VICINITY AND TOPOGRAPHIC MAP					
	DRAWN BY	RCV	DATE	JOB NUMBER		
	CHECKED BY	JAF	10/2013	2013-3194.30		



	PROJECT NAME PORT OF EAST SAINT LOUIS - NORTH CAHOKIA TRACT SAUGET, ILLINOIS			GENERAL NOTES/LEGEND  NATIONAL WETLAND INVENTORY DATA OBTAINED FROM www.fws.gov . USGS TOPOGRAPHIC MAP CAHOKIA, ILLINOIS QUADRANGLE DATED 1998 10' CONTOURS	 SCALE 1" = 1500' FIGURE 2
	NATIONAL WETLAND INVENTORY MAP				
	DRAWN BY RCV CHECKED BY JAF	DATE 10/2013	JOB NUMBER 2013-3194.30		



	<div>PROJECT NAME</div> <div>PORT OF EAST SAINT LOUIS NORTH CAHOKIA TRACT SAUGET, ILLINOIS</div>			<div>GENERAL NOTES/LEGEND</div> <div> INDICATES APPROXIMATE SOIL BORING LOCATION</div> <div> INDICATES APPROXIMATE LOCATION AND DIRECTION OF PHOTOGRAPH</div> <div>AERIAL PHOTOGRAPH OBTAINED FROM ARCGIS ONLINE. DIMENSIONS AND LOCATIONS ARE APPROXIMATE; ACTUAL MAY VARY. DRAWING SHALL NOT BE USED OUTSIDE THE CONTEXT OF THE REPORT FOR WHICH IT WAS GENERATED.</div>	<div></div> <div>SCALE1" = 300'</div> <div>FIGURE3</div>
	<div>WETLAND DELINEATION AND AERIAL PHOTOGRAPH</div>				
	<div>DRAWN BY</div>	<div>RCV</div>	<div>DATE</div>	<div>JOB NUMBER</div>	
	<div>CHECKED BY</div>	<div>JAF</div>	<div>10/2013</div>	<div>2013-3194.30</div>	

Appendix A



Photo 1. Facing east



Photo 2. Looking at new fill road, facing southeast



Photo 3. Base of levee, facing south



Photo 4. Standing on top of new fill road, facing north



Photo 5. Standing on top of new fill road, facing south



Photo 6. Standing on top of new fill road looking at levy, facing west

Appendix B

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Port of East St. Louis-North Cahokia Real Estate

City/County: Sauget/St. Clair

Sampling Date: 9/18/13

Applicant/Owner: North Cahokia Real Estate

State: IL

Sampling Point: S-1

Investigator(s): M. Goodare and M. Eldridge

Section, Township, Range: S23-T2N-R10W

Landform (hillslope, terrace, etc.): levee

Local relief (concave, convex, none): flat

Slope (%): N/A

Lat: _____

Long: _____

Datum: UTM 83

Soil Map Unit Name: Urban Land (533)

NWI or WWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____

(If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic?

(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>		
Remarks:				

VEGETATION – Use scientific names of plants.

<div>Tree Stratum (Plot size: <u>30'</u>)</div> <div> <div>1. <u>Populus deltoides</u></div> <div>2. _____</div> <div>3. _____</div> <div>4. _____</div> <div>5. _____</div> </div> <div> <div>Absolute % Cover</div> <div>5</div> </div> <div> <div>Dominant Species?</div> <div>Y</div> </div> <div> <div>Indicator Status</div> <div>FACW</div> </div>	<div> <div>Dominance Test worksheet:</div> <div>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)</div> <div>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</div> <div>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33</u> (A/B)</div> </div>	
<div> <div>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</div> <div> <div>1. _____</div> <div>2. _____</div> <div>3. _____</div> <div>4. _____</div> <div>5. _____</div> </div> <div> <div>Absolute % Cover</div> <div>5 = Total Cover</div> </div> <div> <div>Dominant Species?</div> <div></div> </div> <div> <div>Indicator Status</div> <div></div> </div> </div>		<div> <div>Prevalence Index worksheet:</div> <div> <div>Total % Cover of:</div> <div>Multiply by:</div> </div> <div> <div>OBL species <u>0</u> x 1 = <u>0</u></div> <div>FACW species <u>5</u> x 2 = <u>10</u></div> <div>FAC species <u>15</u> x 3 = <u>45</u></div> <div>FACU species <u>20</u> x 4 = <u>80</u></div> <div>UPL species <u>70</u> x 5 = <u>350</u></div> <div>Column Totals: <u>110</u> (A) <u>485</u> (B)</div> </div> <div> <div>Prevalence Index = B/A = <u>4.41</u></div> </div> </div>
<div> <div>Herb Stratum (Plot size: <u>5'</u>)</div> <div> <div>1. <u>Festuca arundinacea</u></div> <div>2. <u>Pooideae spp.</u></div> <div>3. <u>Toxicodenron radicans</u></div> <div>4. <u>Johnson grass</u></div> <div>5. <u>Ambrosia trifida</u></div> <div>6. <u>Solidago spp.</u></div> <div>7. _____</div> <div>8. _____</div> <div>9. _____</div> <div>10. _____</div> </div> <div> <div>Absolute % Cover</div> <div>50</div> </div> <div> <div>Dominant Species?</div> <div>Y</div> </div> <div> <div>Indicator Status</div> <div>UPL</div> </div> </div>		
<div> <div>Woody Vine Stratum (Plot size: _____)</div> <div> <div>1. _____</div> <div>2. _____</div> </div> <div> <div>Absolute % Cover</div> <div>105 = Total Cover</div> </div> <div> <div>Dominant Species?</div> <div></div> </div> <div> <div>Indicator Status</div> <div></div> </div> </div>	<div> <div>Hydrophytic Vegetation Present?</div> <div>Yes _____ No <input checked="" type="checkbox"/></div> </div>	
<div>Remarks: (Include photo numbers here or on a separate sheet.)</div>		

SOIL

Sampling Point: S-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 3/3	100						no redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>rock</u> Depth (inches): <u>6 inches to resistance</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Area has been previously disturbed by levee construction.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Port of East St. Louis-North Cahokia Real Estate

City/County: Sauget/St. Clair

Sampling Date: 9/18/13

Applicant/Owner: North Cahokia Real Estate

State: IL

Sampling Point: S-2

Investigator(s): M. Goodare and M. Eldridge

Section, Township, Range: S23-T2N-R10W

Landform (hillslope, terrace, etc.): fill road

Local relief (concave, convex, none): flat

Slope (%): N/A

Lat: _____

Long: _____

Datum: UTM 83

Soil Map Unit Name: Urban Land (533)

NWI or WWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks:		
Data point taken on top of new fill road at southern tip of site.		

VEGETATION – Use scientific names of plants.

<div>Tree Stratum (Plot size: <u>30'</u>)</div> <div> <div>1. _____</div> <div>2. _____</div> <div>3. _____</div> <div>4. _____</div> <div>5. _____</div> </div> <div>_____ = Total Cover</div>	<div> <div>Absolute % Cover</div> <div>Dominant Species?</div> <div>Indicator Status</div> </div> <div> <div>NI</div> <div></div> <div></div> </div>	<div>Dominance Test worksheet:</div> <div>Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)</div> <div>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</div> <div>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)</div>	
<div>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</div> <div> <div>1. _____</div> <div>2. _____</div> <div>3. _____</div> <div>4. _____</div> <div>5. _____</div> </div> <div>_____ = Total Cover</div>	<div> <div>Absolute % Cover</div> <div>Dominant Species?</div> <div>Indicator Status</div> </div> <div> <div></div> <div></div> <div></div> </div>		<div>Prevalence Index worksheet:</div> <div> <div>Total % Cover of:</div> <div>Multiply by:</div> </div> <div> <div>OBL species <u>0</u> x 1 = <u>0</u></div> <div>FACW species <u>5</u> x 2 = <u>10</u></div> <div>FAC species <u>0</u> x 3 = <u>0</u></div> <div>FACU species <u>0</u> x 4 = <u>0</u></div> <div>UPL species <u>70</u> x 5 = <u>350</u></div> <div>Column Totals: <u>75</u> (A) <u>360</u> (B)</div> </div> <div>Prevalence Index = B/A = <u>4.80</u></div>
<div>Herb Stratum (Plot size: <u>5'</u>)</div> <div> <div>1. <u>Festuca arundinacea</u></div> <div>2. <u>Pooideae spp.</u></div> <div>3. <u>Carex alopedoidea</u></div> <div>4. _____</div> <div>5. _____</div> <div>6. _____</div> <div>7. _____</div> <div>8. _____</div> <div>9. _____</div> <div>10. _____</div> </div> <div>_____ = Total Cover</div>	<div> <div>Absolute % Cover</div> <div>Dominant Species?</div> <div>Indicator Status</div> </div> <div> <div>50</div> <div>Y</div> <div>UPL</div> </div> <div> <div>20</div> <div>Y</div> <div>UPL</div> </div> <div> <div>5</div> <div>N</div> <div>FACW</div> </div> <div> <div>NI</div> <div></div> <div></div> </div> <div> <div>NI</div> <div></div> <div></div> </div> <div> <div>NI</div> <div></div> <div></div> </div>		
<div>Woody Vine Stratum (Plot size: _____)</div> <div> <div>1. _____</div> <div>2. _____</div> </div> <div>_____ = Total Cover</div>	<div> <div>Absolute % Cover</div> <div>Dominant Species?</div> <div>Indicator Status</div> </div> <div> <div></div> <div></div> <div></div> </div>	<div>Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/></div>	
<div>Remarks: (Include photo numbers here or on a separate sheet.)</div> <div>Data point taken on top of new fill road at southern tip of site. Vegetation appears new and sparse.</div>			

SOIL

Sampling Point: S-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>rock</u> Depth (inches): <u>at surface</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

Soil sample not able to be taken due to rocky surface restriction. Data point taken on top of new fill road.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Area has been disturbed by fill road construction.