Wetland and Waterbody Delineation

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

October 2013

Prepared for:

TERRA ENGINEEIRNG, 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/S(

Vice President

JAF/MDG/SDH/tlw

Enclosure

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TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	SITE LOCATION	1
	SOIL SURVEY AND TOPOGRAPHIC RESEARCH	
4.0	SITE RECONNAISSANCE AND CONDITION SUMMARY	2
5.0	CONCLUSION	2
6.0	LIMITATION	3

FIGURES

Figure 1 – Vicinity and Topographic Map

Figure 2 – National Wetlands Inventory Map

Figure 3 – Wetland Delineation and Aerial Photograph

APPENDICES

Appendix A – Photographic Summary

Appendix B – Wetland Determination Data Forms – Midwest Region

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 arundinaea*, *Pooidaea spp.*, *Ambrosia trifida*, and *Carex alopedoidea*. 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.

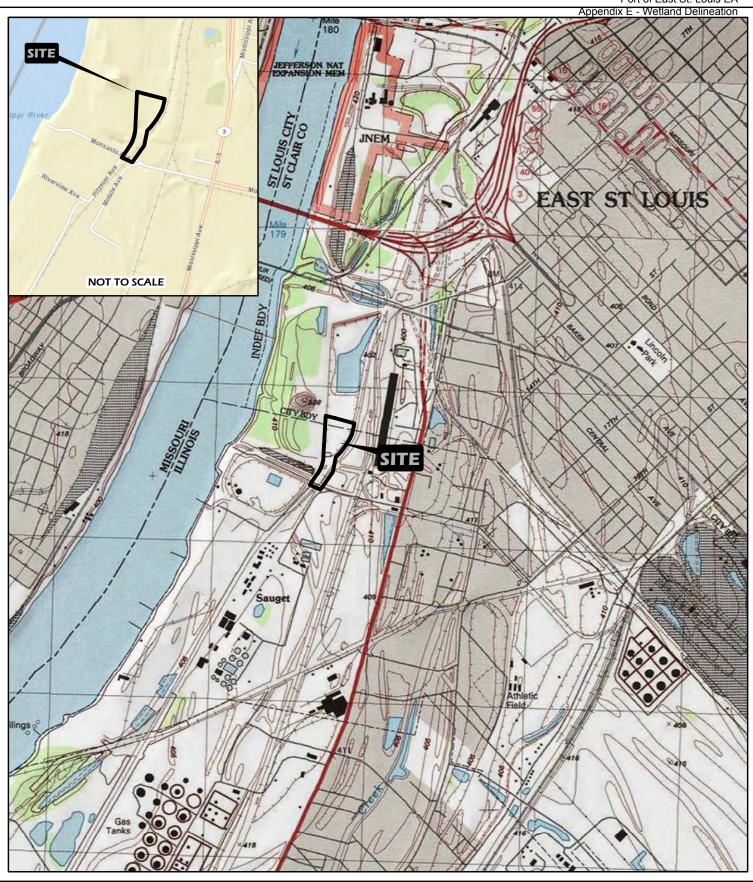
5.0 CONCLUSION

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

VICINITY AND TOPOGRAPHIC MAP

 DRAWN BY
 RCV
 DATE
 JOB NUMBER

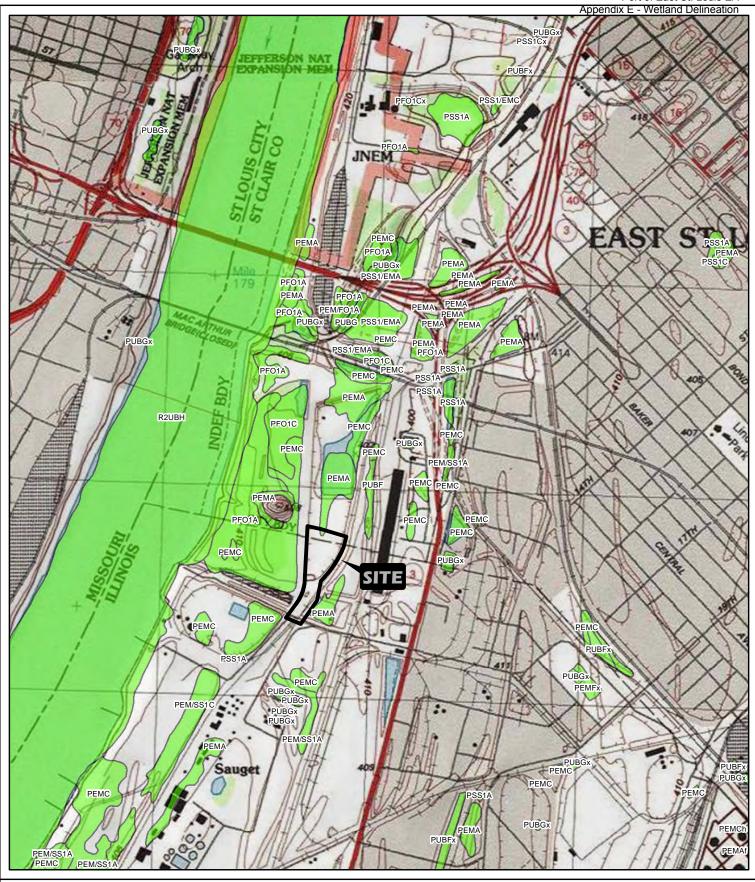
 CHECKED BY
 JAF
 10/2013
 2013-3194.30

GENERAL NOTES/LEGEND USGS TOPOGRAPHIC MAP CAHOKIA, ILLINOIS QUADRANGLE DATED 1998 10' CONTOURS



SCALE 1" = 2000'
FIGURE 1

Port of East St. Louis EA





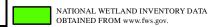
PROJECT NAME
PORT OF EAST SAINT LOUIS NORTH CAHOKIA TRACT
SAUGET, ILLINOIS

NATIONAL WETLAND INVENTORY MAP

 DRAWN BY
 RCV
 DATE
 JOB NUMBER

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 JAF
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 2013-3194.30

GENERAL NOTES/LEGEND



USGS TOPOGRAPHIC MAP CAHOKIA, ILLINOIS QUADRANGLE DATED 1998 10' CONTOURS



SCALE 1" = 1500'

Page E-8 of 18





PORT OF EAST SAINT LOUIS NORTH CAHOKIA TRACT SAUGET, ILLINOIS

WETLAND DELINEATION AND AERIAL PHOTOGRAPH

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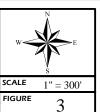
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GENERAL NOTES/LEGEND

INDICATES APPROXIMATE SOIL BORING LOCATION

INDICATES APPROXIMATE LOCATION AND DIRECTION OF PHOTOGRAPH

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.



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

Reset Form Print Form

Appendix E - Wetland Delineation

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Port of East St. Louis-North Cahokia Real Est	ate (Citv/County	r: Sauget/St	t. Clair Sampling Date: 9/18/13		
				State: IL Sampling Point: S-1		
				nge: S23-T2N-R10W		
Landform (hillslope, terrace, etc.): levee						
Slope (%): N/A Lat:						
Soil Map Unit Name: Urban Land (533)				NWI or WWI classification: N/A		
'			V N-			
Are climatic / hydrologic conditions on the site typical for thi						
Are Vegetation, Soil, or Hydrology				'Normal Circumstances" present? Yes X No		
Are Vegetation, Soil, or Hydrologyı	naturally pro	blematic?	(If ne	eded, explain any answers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point l	ocations, transects, important features, etc		
Hydrophytic Vegetation Present? Yes NoX Is the Sampled Area						
Hydric Soil Present? Yes NoX			ie Sampieu in a Wetlar			
Wetland Hydrology Present? Yes N	lo <u>X</u>	Witi	iiii a wetiai	id: 165 NO		
Remarks:						
VEGETATION – Use scientific names of plants						
		Dominant		Dominance Test worksheet:		
Tree Stratum (Plot size:30')	% Cover			Number of Dominant Species		
1. Populus deltoides		<u> </u>		That Are OBL, FACW, or FAC:1 (A)		
2. 3.				Total Number of Dominant Species Across All Strata:3 (B)		
4				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC: 33.33 (A/B)		
Sapling/Shrub Stratum (Plot size: 15')	5	= Total Co	ver	Prevalence Index worksheet:		
1				Total % Cover of: Multiply by:		
2.				OBL species 0 x 1 = 0		
3.				FACW species5 x 2 =10		
4.				FAC species15 x 3 =45		
5				FACU species 20 x 4 = 80		
		= Total Co	ver	UPL species x 5 = 350		
Herb Stratum (Plot size: 5')	50		LIDI	Column Totals:110 (A)485 (B)		
1. Festuca arundinaea	<u>50</u> 	<u>Y</u> Y	UPL UPL	Prevalence Index = B/A =4.41		
Pooidaea spp. Toxicodenron radicans	5	N	FAC	Hydrophytic Vegetation Indicators:		
4. Johnson grass	10	N	FACU	Dominance Test is >50%		
5. Ambrosia trifida	10	N	FAC	Prevalence Index is ≤3.0 ¹		
6. Solidago spp.	- 40	N	FACU	Morphological Adaptations ¹ (Provide supporting		
7				data in Remarks or on a separate sheet)		
8.				Problematic Hydrophytic Vegetation ¹ (Explain)		
9				The disease of budgies and continued budgets on according		
10				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
Moody Vino Stratum (Plat size)	105	= Total Co	ver	·		
Woody Vine Stratum (Plot size:)				Hydrophytic		
1				Vegetation		
2		= Total Co	ver	Present? Yes No _X_		
Demontor (Include whater combined to		. 3.6.1 00				
Remarks: (Include photo numbers here or on a separate	sneet.)					

SOIL Sampling Point: S-1

Danth						n the absence	or maioators.		
Depth	Matrix		Redox F	eatures					
(inches) Col	lor (moist) %	Cold	or (moist)	% Type	Loc ²	Texture	Remarks		
0-6 10	0 YR 3/3 10	00					no redox features		
				· ·					
						· ·			
l									
									
									
¹ Type: C=Concentra		RM=Reduc	ed Matrix, CS=0	Covered or Coa	ated Sand Gr		cation: PL=Pore Lining, M=		
Hydric Soil Indicate	ors:						for Problematic Hydric So	oils":	
Histosol (A1)				eyed Matrix (S4	.)		Prairie Redox (A16)		
Histic Epipedon			Sandy Red			Iron-Manganese Masses (F12)			
Black Histic (A3			Stripped M	ilatrix (S6) icky Mineral (F	4\	Other (Explain in Remarks)			
Hydrogen Sulfid Stratified Layers				eyed Matrix (F2	,				
2 cm Muck (A10				Matrix (F3)	-)				
	v Dark Surface (A11	1)		rk Surface (F6)					
Thick Dark Surfa		,		Dark Surface (F		3Indicators	s of hydrophytic vegetation a	nd	
Sandy Mucky M	, ,			pressions (F8)	,		d hydrology must be presen		
5 cm Mucky Pea	at or Peat (S3)					unless	s disturbed or problematic.		
Restrictive Layer (i	f observed):								
Type: rock									
Depth (inches): 6	6 inches to resistan	ice				Hydric Soi	Present? Yes	No <u>×</u>	
Remarks:									
LIVEROLOGY									
HYDROLOGY									
Wetland Hydrology									
Drimary Indicators (minimum of one ic								
inimary mulcators (f	THITIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	required; che	ck all that apply	y)		Second	ary Indicators (minimum of the	vo required)	
Surface Water (required; che 		y) ed Leaves (B9)			ary Indicators (minimum of to face Soil Cracks (B6)	vo required)	
	(A1)	required; che — —		ed Leaves (B9)		Sur Dra	face Soil Cracks (B6) inage Patterns (B10)	wo required)	
Surface Water ((A1) ble (A2)	required; che 	_ Water-Staine	ed Leaves (B9) na (B13)		Sur Dra	face Soil Cracks (B6)	wo required)	
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Reset Form Print Form

Appendix E - Wetland Delineation

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Port of East St. Louis-North Cahokia Real Est	tate (Citv/Coun	itv: Sauget/St	:. Clair Sampling Date: 9/18/13		
				State: IL Sampling Point: S-2		
				nge: S23-T2N-R10W		
• , ,				(concave, convex, none): flat		
Slope (%): N/A Lat:						
Soil Map Unit Name: Urban Land (533)		- J <u>—</u>		NWI or WWI classification: N/A		
Are climatic / hydrologic conditions on the site typical for thi	is time of ve	ar? Yes	X No			
Are Vegetation, Soil, or Hydrology				Normal Circumstances" present? Yes X No		
Are Vegetation, Soil, or Hydrology				eded, explain any answers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map						
-			g po			
Hydrophytic Vegetation Present? Yes NoX Hydric Soil Present? Yes NoX Is the Sampled Area within a Wetland? Yes NoX						
Wetland Hydrology Present? Yes N	10 X	wi	thin a Wetlar	nd? Yes NoX		
Remarks:		I				
Data point taken on top of new fill road at southern tip of s	ite.					
VEGETATION – Use scientific names of plants	i.					
		Domina	nt Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)			? Status	Number of Dominant Species		
1				That Are OBL, FACW, or FAC:0 (A)		
3.				Total Number of Dominant Species Across All Strata: 2 (B)		
4				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC:0 (A/B)		
Sapling/Shrub Stratum (Plot size:)		= Total C	over	Prevalence Index worksheet:		
1				Total % Cover of: Multiply by:		
2				OBL species0 x 1 =0		
3				FACW species 5 x 2 = 10		
4		-		FAC species x 3 = 0		
5				FACU species 0 x 4 = 0 UPL species 70 x 5 = 350		
Herb Stratum (Plot size: 5')		= Total C	over	UPL species x 5 = 350 Column Totals: 75 (A) 360 (B)		
1. Festuca arundinaea	50	Υ	UPL	Column Totals (A) (B)		
2. Pooidaea spp.	20	Y	UPL	Prevalence Index = B/A =4.80		
3. Carex alopedoidea	5	N	FACW	Hydrophytic Vegetation Indicators:		
4				Dominance Test is >50%		
5				 Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting 		
6				data in Remarks or on a separate sheet)		
7. 8.				Problematic Hydrophytic Vegetation ¹ (Explain)		
9.						
10				¹Indicators of hydric soil and wetland hydrology must		
	75		over	be present, unless disturbed or problematic.		
Woody Vine Stratum (Plot size:)						
1			_	Hydrophytic Vegetation		
2				Present? Yes No _X		
		= rotal C	over			
Remarks: (Include photo numbers here or on a separate	sheet.)					
Data point taken on top of new fill road at southern tip of s	site. Vegetat	ion appea	ars new and s	parse.		

Port of East St. Louis EA Appendix E - Wetland Delineation

SOIL Sampling Point: S-2

		_		nent the indicator	or confirm	the absence	of indicators.)
Depth (inches)	Color (moist)	%	Color (moist)	K Features W Type ¹	Loc ²	Texture	Remarks
(IIICHES)	Color (moist)		Color (moist)		LUC	Texture	Nemarks
		<u> </u>					
	-			·			
1Type: C=Co	ncentration D=D	enletion RM-R	educed Matrix CS	=Covered or Coate	ed Sand Gra	ains ² Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil I		epiction, rawi=ra	caacca Matrix, CC	=00vered or obait	d Garia Gre		for Problematic Hydric Soils ³ :
Histosol			Sandy G	Bleyed Matrix (S4)			Prairie Redox (A16)
	pipedon (A2)			ledox (S5)			anganese Masses (F12)
Black His				Matrix (S6)			Explain in Remarks)
	n Sulfide (A4)			/lucky Mineral (F1)		(,
	Layers (A5)			Bleyed Matrix (F2)			
2 cm Mu	. , ,			d Matrix (F3)			
Depleted	Below Dark Surf	ace (A11)	Redox D	ark Surface (F6)			
Thick Da	ark Surface (A12)		Depleted	d Dark Surface (F7)	³ Indicators	of hydrophytic vegetation and
	lucky Mineral (S1)		Redox D	epressions (F8)			I hydrology must be present,
	cky Peat or Peat					unless	disturbed or problematic.
	_ayer (if observe	d):					
Type: roc	:k						
Depth (inc	ches): at surface					Hydric Soil	Present? Yes No X
Remarks:					J	l .	
HYDROLO							
_	drology Indicator						
Primary Indic	ators (minimum o	f one is required	d; check all that ap				ry Indicators (minimum of two required)
	Water (A1)			ned Leaves (B9)			ace Soil Cracks (B6)
_	iter Table (A2)		Aquatic Fa	una (B13)			nage Patterns (B10)
Saturation	` '			tic Plants (B14)			Season Water Table (C2)
	arks (B1)			Sulfide Odor (C1)			fish Burrows (C8)
Sedimer	nt Deposits (B2)			hizospheres on Liv	-		ration Visible on Aerial Imagery (C9)
	oosits (B3)		· · · · · · · · · · · · · · · · · · ·	of Reduced Iron (C	•	·	ted or Stressed Plants (D1)
	it or Crust (B4)		Recent Iron	n Reduction in Tille	d Soils (C6)	Geoi	morphic Position (D2)
Iron Dep	osits (B5)			Surface (C7)		FAC	-Neutral Test (D5)
Inundation	on Visible on Aeria	al Imagery (B7)	Gauge or V	Vell Data (D9)			
Sparsely	Vegetated Conc	ave Surface (B8) Other (Exp	lain in Remarks)			
Field Observ	vations:						
Surface Water	er Present?	Yes No	Depth (inc	ches):			
Water Table	Present?	Yes No	X_ Depth (inc	:hes):			
Saturation Pr	resent?	Yes No	X_ Depth (inc	ches):	Wetla	nd Hydrology	Present? Yes No X
(includes cap				hataa maa Zana Za		C 9 - 1-1-	
Describe Red	corded Data (strea	am gauge, moni	toring well, aerial p	hotos, previous ins	spections), if	r avallable:	
Remarks:							
Area has has	en disturbed by fill	road construction	on				
AICA HAS DEC	on disturbed by IIII	road constituction	O. I.				