APPENDIX A

Wetland Delineation Report and USACE Review



September 12, 2019

Des Moines Industrial, LLC 512 ½ East Grand Avenue Des Moines, IA 50309

Attn: Mr. Paul Cownie

gabeclaypool@hotmail.com E: paulcownie@gmail.com

Mr. Gabe Claypool

Re: **Wetland Delineation Report**

Des Moines Area Transloading Facility

200 SE 15th Street Des Moines, IA 50317

Terracon Proposal No. 08197038

Dear Mr. Cownie/Claypool:

Terracon is pleased to submit the Wetland Delineation Report for the above referenced project. Based on the results of the delineation, 4.45 acres of wetlands identified on the subject site.

A cover letter addressed to the Rock Island District has been included with the enclosed report; however, a copy of this report has not been provided to the U.S. Army Corps of Engineers (USACE) by Terracon. A copy of the Wetland Delineation Report and attached letter should be submitted to the USACE for review and concurrence. The USACE can be reached at the following address:

> US Army Corps of Engineers – Rock Island District – Regulatory Branch Clock Tower Building, PO Box 2004, Rock Island, IL 61204-2004 Attention: Mr. Mathew Zehr

Terracon would be pleased to assist you in preparation of the Section 404 Permit Application and any wetland or WOUS mitigation plans that may be required by the USACE if wetland or WOUS impacts are proposed. Terracon appreciates the opportunity to have worked for you on this project. If you have any questions regarding the content of this report, please contact us at 515.244.3184.

Sincerely,

Terracon Consultants, Inc.

Adam C. Corcoran Project Environmental Scientist Gerald T. Hentges, P.G. Senior Associate

Enclosures Copies to: Addressee (2)

> Terracon Consultants, Inc. 600 Southwest 7th Street, Suite M Des Moines, Iowa 50309 P [515] 244-3184 F [515] 244-5249 terracon.com

Des Moines Area Transloading Facility
Des Moines, Iowa

September 12, 2019 Terracon Project No. 08197038



Prepared for:

Des Moines Industrial, LLC 512 ½ East Grand Avenue

Prepared by:

Terracon Consultants, Inc.
Des Moines, Iowa

terracon.com



Environmental Facilities Geotechnical Materials



September 12, 2019

Mr. Mathew Zehr
United States Army Corps of Engineers – Regulatory Branch
Rock Island District – Clock Tower Building
PO Box 2004
Rock Island, IL 61204-2004

Re: Wetland Delineation Report

Des Moines Area Transloading Facility 200 SE 15th Street Des Moines, IA 50317 Terracon Proposal No. P08197038

Dear Mr. Zehr:

Terracon is pleased to submit the Wetland Delineation Report prepared for Des Moines Industrial, LLC. This report describes the technical criteria, field indicators, and other sources of information used to identify and delineate wetlands. Based on the results of the delineation, 4.45 acres of wetlands identified on the subject site. At this time, we are requesting that you perform an Approved Jurisdictional Determination for the project and advise our client if a permit will be required for the proposed impacts.

If you have any questions concerning this report, please contact Adam at 515.244-3184 or by e-mail at adam.corcoran@terracon.com.

Sincerely,

Terracon Consultants, Inc.

Adam C. Corcoran
Project Environmental Scientist

Gerald T. Hentges, P.G. Senior Associate

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Copies to: Addressee (2)

Terracon Consultants, Inc. 600 Southwest 7th Street, Suite M Des Moines, Iowa 50309 P [515] 244-3184 F [515] 244-5249 terracon.com

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WETLAND DELINEATION REPORT DES MOINES AREA TRANSLOADING FACILITY 200 SE 15TH STREET DES MOINES, IOWA

Terracon Project No. 08197038 September 12, 2019

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) was retained by Des Moines Industrial, LLC to perform a wetland delineation for the Des Moines Area Transloading Facility project, hereafter referred to as the subject site. The subject site covers approximately 40-acres and is located in the SE ¼ of Section 3 and the SW ¼ of Section 2, Township 78 North, Range 24 West, Des Moines, Iowa as depicted on Exhibit 1 in Appendix A.

Terracon understands that Des Moines Industrial, LLC. is preparing plans to construct a multi-modal transloading facility including trackage, docks, and warehousing.

The purpose of performing the wetland delineation was to assess if wetlands or Waters of the United States (WOUS) are present and, if so, to identify the boundaries. The wetland delineation was performed in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region. According to U.S. Army Corps of Engineers (USACE) guidelines, wetlands generally have three essential characteristics: hydrophytic (wetland) vegetation, hydric soils, and wetland hydrology.

2.0 SCOPE OF SERVICES

Terracon performed the following scope of services:

- Reviewed map and aerial photograph resources to assist with identifying suspect WOUS and wetland areas at the subject site.
- Mobilized to the site to conduct the wetland delineation.
- Prepared a wetland delineation map showing WOUS and wetland areas identified during the site visit, if any.
- Completed a Wetland Delineation Report that included delineation rationale, a discussion of applicable data, and recommendations for the site.

Des Moines Area Transloading Facility Des Moines, Iowa September 12, 2019 Terracon Project No. 08197038



3.0 PRELIMINARY DATA GATHERING AND ANALYSIS

Prior to performing the delineation, several map and aerial photograph resources were reviewed to assist with identifying WOUS and wetland areas at the subject site. Each source of data is described in detail below.

3.1 Topographic Map

The United States Department of the Interior Geologic Survey (USGS) 7.5-Minute Topographic Map of the subject site was reviewed to identify drainages or WOUS within the subject area. A portion of the *Des Moines SE*, lowa Quadrangle can be seen as Exhibit 1 in Appendix A. As shown on Exhibit 1, possible wetlands or WOUS were not identified on the site. The site consists primarily of multiple railroad tracks and spurs.

3.2 National Wetland Inventory Map

The National Wetland Inventory (NWI) Map of the subject site was reviewed to identify potential wetland areas. The map for the subject site was published by the U.S. Department of the Interior's Fish and Wildlife Service and depicts probable wetland areas based on stereoscopic analysis of high altitude aerial photographs. The review of the NWI map identified several wetlands on the site. The identified wetlands are located in three stormwater retention basins constructed onsite except for a Palustrine Emergent Persistent Seasonally flooded wetland identified in a wooded area on the western portion of the site. During the delineation site visit, a wetland was not identified in this area. Wetlands were identified in the retention basins. A portion of the NWI map can be seen as Exhibit 2 in Appendix A.

3.3 Soil Survey Information

The Soil Survey of Polk County, Iowa was reviewed to identify soil types, including hydric soils, in the area of the subject site. The document was published in 2000 by the U.S. Department of Agriculture Soil Conservation Service, now known as the Natural Resource Conservation Service (NRCS). Terracon also utilized the NRCS on-line Web Soil survey (WSS)¹ to identify soil types and hydric soils. The NRCS soil survey map can be seen as Exhibit 3 in Appendix A; however, this map does not depict all of the identified soil types found in the WSS.

The following soil types were identified at subject site, based on an area of inquiry search utilizing the WSS:

¹ Posted at: http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

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Soil Types

Map Unit Symbol	Map Unit Name	National Hydric Soil List	Polk County Hydric Soil List
220	Nodaway silt loam, 0-2% slopes, occasionally flooded	No	Yes
4000	Urban Land	No	No

3.4 Aerial Photographs

Terracon reviewed aerial photographs obtained from the ISU GIS Support and Research Facility to identify suspected wetland areas on the subject site. Aerial photographs from the 1930s, 1950s, 1960s, 1970s, 1980s, 1990s, 2002, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2013, 2014, 2015, and 2017 were reviewed and have been included in Appendix B.

Historical Aerial Photographs

Year	Description	
1930s-1980s The site consists of a railyard. Possible inundation is apparent one of the step basins in several of the aerials.		
The railyard no longer appears active. An auto salvage yard is now located central portion of the site. Inundation is apparent in one of the stormwater b		
2002-2011	Significant changes from the previous aerial were not observed. The inundation in the stormwater basin was not apparent in every aerial.	
2013	The site appears to be being cleared in preparation for the MLK Parkway project.	
2014	The MLK Parkway project is underway.	
2015-2017	The MLK Parkway project appears to be completed. The now appears to be four stormwater retention basins onsite.	

The site appears to have historically consisted of a railyard. A portion of the site appears to have been utilized as an auto salvage yard after the railyard was no longer in use. Circa 2013, preparation for the MLK Parkway project began with the project being completed in the area of the site in 2014 or 2015.

3.5 Hillshade Map

Terracon reviewed the Hillshade Map of the site obtained from the ISU GIS Support and Research Facility to assist in identifying potential lowland areas. The Hillshade Map uses LIDAR data to depict the approximate topography of the site. The Hillshade Map, including a transparent aerial photograph, can be seen as Exhibit 4 in Appendix A. As shown on Exhibit 4, the site consists of uneven ground with several apparent stormwater retention basins.

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4.0 FIELD TECHNIQUES

An experienced Terracon wetland scientist used technical criteria, field indicators, historic aerial photographs, and other sources of information to evaluate the subject site. The evaluation methods generally followed the routine on-site determination method referenced in the 1987 USACE Manual and 2010 Midwest Supplement.

Wetlands generally have three essential characteristics: hydrophytic (wetland) vegetation, hydric soils, and wetland hydrology. Several representative observation locations were selected within the suspect wetland area. Vegetation, soils and hydrology were evaluated within the suspect area to determine if wetland characteristics were present. The techniques for evaluating the plant community, soils, and hydrology are described in the following sections.

4.1 Plant Community Assessment

Suspect areas were visually observed to assess the species and absolute percentage of ground cover for four stratum of plant community types. Herbs were generally observed within a five-foot radius, shrubs/saplings within a fifteen-foot radius, and trees and vines within a thirty-foot radius of the observation location. Several representative observation locations were selected within the suspected wetland area to generally represent the vegetation characteristics of the whole community. The vegetation for a selected area was identified using A Manual on Aquatic Plants (Fassett, 1957), Midwestern Wetland Flora, A Field Office Guide to Plant Species (Mohlenbrock and Mohlenbrock), and Wildflowers and Other Plants of Iowa Wetlands (Runkel and Roosa, 1999).

For a species of vegetation observed, their wetland indicator status was evaluated. Indicator status was assessed using the USACE North American Digital Flora: National Wetland Plant List and the <u>National List of Plant Species that Occur in Wetlands - Region 3</u> (Reed, 1988). Indicator categories for vegetation are presented below:

- **Obligate Wetland (OBL)** occur almost always (estimated probability greater than 99%) under natural conditions in wetlands.
- **Facultative Wetland (FACW)** usually occur in wetlands (estimated probability 67% 99%) but occasionally found in non-wetlands.
- **Facultative (FAC)** equally likely to occur in wetlands or non-wetlands (estimated probability 34% 66%).
- **Facultative Upland (FACU)** usually occur in non-wetlands (estimated probability 67% 99%) but occasionally found in wetlands.

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 Obligate Upland (UPL) – rarely occur in wetlands, but occur almost always (estimated probability greater than 99%) under natural conditions in non-wetlands.

The percent cover of the stratum was assessed and dominance was evaluated. Dominant species were the most abundant species that accounted for more 20 percent of the absolute percent coverage of the stratum. The number of dominant species with an indicator status of OBL, FACW, and/or FAC was compared to the total number of dominant species across the strata. Typically, when more than 50 percent of the dominant species had an indicator status of OBL, FACW, and/or FAC, hydrophytic vegetation was present.

If the percentage of dominant species with an indicator status of OBL, FACW, and/or FAC was less than 50 percent, prevalence index and morphological adaptations may have been evaluated to confirm if hydrophytic vegetation was present or absent.

4.2 Hydric Soils Assessment

After Terracon evaluated wetland vegetation, subsurface soil samples were collected using a soil probe. The samples were collected to a depth of approximately 18 inches below ground surface and were visually compared to Munsell Soil Color Charts (Munsell, 1994), which aided in the evaluation of hydric soil characteristics. The soil samples were further examined for hydric soil indicators including, but not limited to, histosol, thick dark surface, sandy gleyed matrix, sandy redox, loamy gleyed matrix, redox dark surface, and/or redox depressions. If these or other hydric soil indicators were observed in the subsurface soil sample, the observation location was considered to have hydric soil.

4.3 Wetland Hydrology Assessment

Visual indicators of wetland hydrology were evaluated. Examples of primary wetland hydrology indicators include, but are not limited to, surface water, high water table, soil saturation, water marks, sediment deposits, drift deposits, iron deposits, inundation visible on aerial imagery, sparsely vegetated concave surface, and water-stained leaves. If at least one primary or two secondary indicators were observed, the observation location was considered to have wetland hydrology.

4.4 Classification of Wetlands

Upon completion of the review of the three wetland criteria at each area, a wetland determination was made. Under normal circumstances, if one or more of the wetland criteria were not identified, the area was not considered to be a wetland. If all three wetland indicators were identified, the area was classified as wetland. Additional observations were made throughout the wetland area to define the wetland/non-wetland boundary, which was mapped with GPS technology or flagged and surveyed by traditional methods. Vegetation, soil and

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hydrology assessment data from at least one location within the wetland and one upland location outside of the wetland were recorded on a USACE Wetland Determination Form. The recorded data forms for the subject site can be found in Appendix C and the data point location can be seen on Exhibit 5 in Appendix A. The wetland locations plotted on the USGS topographic map can be seen as Exhibit 6 in Appendix A.

4.5 WOUS Observations

Terracon also made observations of any site features that may be considered a WOUS. If a potential WOUS was identified, observations regarding its characteristics were recorded. The following definitions were used when describing the WOUS:

- Flow Characteristics:
 - Perennial: contains water at all times except during extreme drought.
 - Intermittent: carries water a considerable portion of the time, but ceases to flow occasionally or seasonally.
 - Ephemeral: carries water only during and immediately after periods of rainfall or snowmelt.
- Ordinary High Water Mark: The limit line on the shore established by the fluctuation of the water surface. It is shown by such things as a clear line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, the presence of litter and debris or other features influenced by the surrounding area.
- Bank Shape Descriptions:
 - Undercut: banks that overhang the stream channel
 - Steep: bank slope of approximately greater than 30 degrees
 - Gradual: bank slope of approximately 30 degrees or less
- Aquatic Habitat Descriptions:
 - Pool: deeper portion of a stream where water flows slower than in neighboring, shallower portions, smooth surface, and finer substrate
 - Riffle: shallow area in a stream where water flows swiftly over gravel and rock or other coarse substrate resulting in a rough flow and a turbulent surface
 - Run: section of a stream with a low or high velocity and with little or no turbulence on the surface of the water.

5.0 FIELD OBSERVATIONS RESULTS

On July 23 and 29, 2019, Terracon performed fieldwork and identified five wetland areas on the subject site. The areas are designated as Wetland Areas 1 through 5, as shown on Exhibit 5 in Appendix A. Wetland Determination Data Forms for each wetland area are provided in Appendix C. Wetland Determination Forms were also provided for the upland areas adjacent to

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the identified wetlands and suspect areas observed on the site at the time of the site reconnaissance or observed during the preliminary data gathering process. Ground photographs, included in Appendix D, provide an indication of the physical characteristics observed during the site visit. The following tables provide a summary the wetlands and drainage identified during the site reconnaissance.

Des Moines Area Transloading Facility Des Moines, Iowa September 12, 2019 Terracon Project No. 08197038



5.1 Wetland Area 1 (WL-1)

Wetland Description				
Wetland ID WL-1				
Size	0.76 acres			
Sampling Point(s)	Sampling Point(s) DP-1			
Photo ID	1, 2		_	
Association w/ WOUS	Wetland Area 1 appears to	be isolated and not associated with	a WOUS.	
Wetland Description		in a manmade City stormwater reten		
NWI Map	Deciduous Seasonally Flo	as a Palustrine Emergent Scrub-Shru oded Excavated (PSS1Cx)		
Cowardin Classification	Based on field observation Flooded Excavated (PEMA)	ions, WL-1 is a Palustrine Emerg Ax)	ent Temporarily	
Wetland Type	Wet meadow with emerge	nt areas		
Vegetative Cover	Dense			
	Common Name	Scientific Name	WL Indicator	
Dominant Wetland	Dark Green Bulrush	Scirpus atrovirens	OBL	
Vegetation <u>at data point</u>	Fox Sedge	Carex vulpinoidea	FACW	
<u>locations</u>	Softstem Bulrush	Schoenoplectus tabernaemontani	OBL	
	Cattail	Typha latifolia	OBL	
Hydrogeomorphic Class	Depression			
	Soil Type (soil survey) Urban Land			
Soil Type (field obs.) Sandy lean clay				
Soil Characteristics <u>at</u> <u>data point locations</u>	Depleted Matrix/Redox Dark Surface			
Hydrology Characteristics <u>at data</u> <u>point locations</u>	High Water Table, Saturation			
Hydrology Source	Surface water runoff, City stormwater			
Other Information				
		land) Description	_	
	Data Point(s) DP-2			
Habitat Type	Grassland/Scrub-Shrub	T		
Was there a marked difference between the wetland and upland No				
Was there a gradual change in vegetation between No				
the wetland and upland creating a "transition zone"				
Was there an abrupt topographic change between the wetland and upland				

Wetland Area 1 appeared to be isolated and not associated with a WOUS.

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5.2 Wetland Area 2 (WL-2)

Wetland Description				
Wetland ID	WL-2			
Size	2.45 acres			
Sampling Point(s)	DP-3			
Photo ID	3, 4		_	
Association w/ WOUS	Wetland Area 2 appears to I	oe isolated and not associated with a	WOUS.	
Wetland Description	Wetland Area 2 is located in	a manmade City stormwater retention	on basin.	
NWI Map	NWI map identifies WL-2 as consisting of three wetland zones: A Palustrine Emergent Scrub-Shrub Broad Leaved Deciduous Seasonally Flooded Excavated (PSS1Cx), a Palustrine Emergent Persistent Semipermanently Flooded Excavated (PEM1Fx) and a Palustrine Emergent Persistent Seasonally Flooded Excavated (PEM1Cx)			
Cowardin Classification	Based on field observation Flooded Excavated (PEMAx	ns, WL-2 is a Palustrine Emerger ()	nt Temporarily	
Wetland Type	Wet meadow with emergent	areas		
Vegetative Cover	Dense			
Dominant Wetland Vegetation	Common Name Dark Green Bulrush Softstem Bulrush Yellow Nut Sedge	Scientific Name Scirpus atrovirens Schoenoplectus tabernaemontani Cyperus esculentus	WL Indicator OBL OBL OBL	
Hydrogeomorphic Class Depression				
Soil Type (soil survey)	Urban Land			
Soil Type (field obs.)	Sandy Lean Clay			
Soil Characteristics	Depleted Matrix/Thick Dark Surface			
Hydrology Characteristics	High Water Table, Saturation			
Hydrology Source	Surface water runoff, City stormwater			
Other Information				
	Non-Wetland (Upla	nd) Description		
Data Point(s) DP-4				
Habitat Type	Grassland, Scrub-Shrub			
Was there a marked difference between the wetland and upland				
the wetland and upland c	nge in vegetation between reating a "transition zone"	No		
Was there an abrupt topo the wetland and upland	graphic change between	Yes		

Wetland Area 2 appears to be isolated and not associated with a WOUS.

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5.3 Wetland Area 3 (WL-3)

Wetland Description					
Wetland ID	Vetland ID WL-3				
Size	0.44 acres				
Sampling Point(s)	DP-5, DP-6				
Photo ID	5-7				
Association w/ WOUS	Wetland Area 3 does not a	opear to be associated with a WOUS			
Wetland Description	Wetland Area 3 is located in a somewhat poorly drained area within the former railyard. The subsurface appeared to be fill material but did meet the redox dark surface hydric soil criteria. An ephemeral drainage that appeared to be a portion of the railroad ditch runs from just north of the wetland, through the wetland and discharges to the City stormwater retention basin.				
NWI Map	Not identified				
Cowardin Classification	Palustrine Emergent Temp				
Wetland Type	•	shrub portion of the northeast portion	<u> </u>		
Vegetative Cover	Dense		,		
Dominant Wetland Vegetation	Common Name Reed Canary Grass Dark Green Bulrush	Scientific Name Phalaris arundinacea Scirpus atrovirens	WL Indicator FACW OBL		
Hydrogeomorphic Class	Fringe				
Soil Type (soil survey)	Urban Land				
Soil Type (field obs.)	Sandy clay that appeared to	o be fill			
Soil Characteristics	Redox dark surface				
Hydrology Characteristics	High Water Table, Saturation	on			
Hydrology Source	Surface water runoff		_		
Other Information					
	Non-Wetland (Upland) Description				
Data Point(s)	DP-7, DP-8				
Habitat Type Grassland to the south and		woodlands to the north.			
Was there a marked difference between the wetland and upland		No			
Was there a gradual change in vegetation between		No			
	reating a "transition zone"				
Was there an abrupt topo the wetland and upland	graphic change between	No			

Wetland Area 3 appears to be isolated and not associated with a WOUS.

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5.4 Wetland Area 4 (WL-4)

Wetland Description			
Wetland ID WL-4			
Size	0.25 acres		
Sampling Point(s)	DP-10		_
Photo ID	8		
Association w/ WOUS	Wetland Area 4 appears to	be isolated and not associated with a	a WOUS.
Wetland Description	Wetland Area 4 is located i	n a manmade City stormwater retenti	on basin.
NWI Map	Not identified		
Cowardin Classification		stent Seasonally Flooded Excavated ((PEM1Cx)
Wetland Type	Emergent and wet meadow	V	
Vegetative Cover	Dense		
Dominant Wetland	Common Name	Scientific Name	WL Indicator
Vegetation	Cattail	Typha latifolia	OBL
	Softstem Bulrush	Schoenoplectus tabernaemontani	OBL
Hydrogeomorphic Class	Depression		
Soil Type (soil survey)	Urban		
Soil Type (field obs.) Muck followed by a layer of sand and then silty clay			
Soil Characteristics	2 cm Muck and Depleted M	latrix	
Hydrology Characteristics	High Water Table, Saturation	igh Water Table, Saturation, Aquatic Fauna, Hydrogen Sulfide Odor	
Hydrology Source	Surface water runoff and C	ity stormwater	
Other Information			
	Non-Wetland (Upl	and) Description	
Data Point(s)	DP-11		
Habitat Type Grassland		,	
Was there a marked difference between the wetland		No	
and upland			
Was there a gradual change in vegetation between		No	
the wetland and upland creating a "transition zone"			
Was there an abrupt topo	graphic change between	Yes	
the wetland and upland			

Wetland Area 4 appears to be isolated and not associated with a WOUS.

Wetland Delineation Report
Des Moines Area Transloading Facility ■ Des Moines, Iowa September 12, 2019 Terracon Project No. 08197038



5.5 Wetland Area 5 (WL-5)

6.0 Wetland Description				
Wetland ID WL-5				
Size	0.55 acres			
Sampling Point(s)	DP-12, DP-14			
Photo ID	9-10			
Association w/ WOUS	Wetland Area 5 appears to	be isolated and not associated with	a WOUS.	
Wetland Description	Wetland Area 5 is located i	n a manmade City stormwater retent	ion basin.	
NWI Map	Not identified			
Cowardin Classification	Palustrine Emergent Persis	stent Seasonally Flooded Excavated	(PEM1Cx)	
Wetland Type	Emergent and wet meadow	V		
Vegetative Cover	Moderate to dense			
Dominant Wetland	Common Name	Scientific Name	WL Indicator	
Vegetation	Reed Canary Grass	Phalaris arundinacea	FACW	
Hydrogeomorphic Class	Depression			
Soil Type (soil survey)				
Soil Type (field obs.)	Silty clay			
Soil Characteristics	Depleted Matrix			
Hydrology Characteristics Water Stained Leaves				
Hydrology Source	Surface water runoff, City S	Stormwater, railroad ditch		
Other Information				
,	Non-Wetland (Upl	and) Description		
Data Point(s)	DP-13			
Habitat Type	Grassland, woodlands			
	rence between the wetland	No		
and upland				
	nge in vegetation between	No		
the wetland and upland creating a "transition zone"				
Was there an abrupt topo	graphic change between	Yes		
the wetland and upland				

Wetland Area 5 appears to be isolated and not associated with a WOUS.



7.0 WETLAND AND WATERS OF THE UNITES STATES SUMMARY

This report details the procedures used to identify wetlands on the subject site. In accordance with the field procedures described in this report, wetlands were identified at the subject site. The following table summarizes the sizes of the delineated wetlands within the subject site.

Wetland Name	Approximate Wetland Area On-site (acres)
WL-1	0.76
WL-2	2.45
WL-3	0.44
WL-4	0.25
WL-5	0.55
Total Wetland Area	4.45

8.0 RECOMMENDATIONS

According to survey results, 4.45 acres of wetlands were identified on the subject site. Only the USACE can make the final determination on the jurisdictional status of wetlands or drainage feature, and on the need for permit processing and compensatory mitigation.

A color copy of this report along with the proposed site development plan should be submitted to the USACE for confirmation of findings and an approved USACE Jurisdictional Determination to evaluate whether a Section 404 Permit will be required. As part of the Section 404 Permit, if required, a Section 401 Water Quality Certification from the Iowa Department of Natural Resources may be required.

9.0 GENERAL COMMENTS

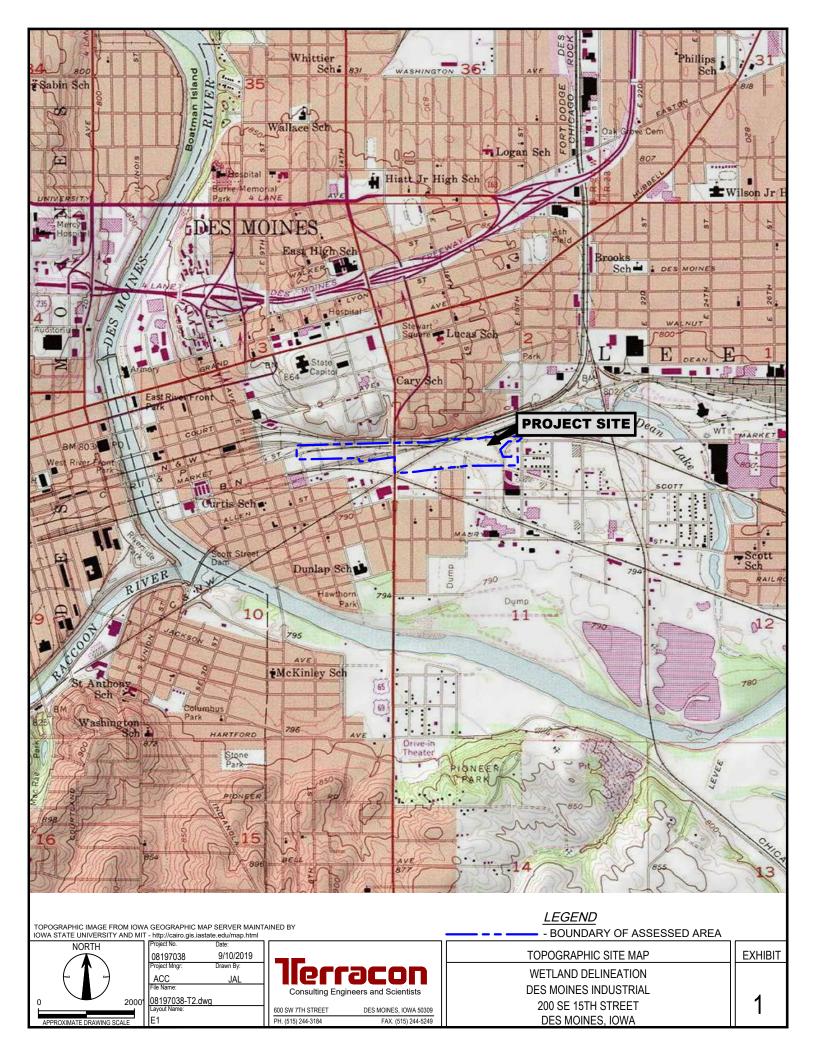
The wetland delineation was performed using the USACE Manual and Midwest Supplement. The manual provides assistance for delineating wetlands based on the three criteria discussed. However, the manual alone may not have provided enough information to document whether or not the three criteria were met. Various physical properties or other visual signs used to evaluate whether the three wetland identification criteria areas were satisfied may not be straightforward, especially in disturbed or problem areas. The manual also allows the user to visually estimate certain indicators such as the percentage of area covered by dominant species for the entire community. Terracon did not attempt to identify every possible plant species and did not classify soil type by laboratory methods. Due to seasonal changes, Terracon cannot guarantee the area to exhibit or not to exhibit wetland characteristics at all times of the year. The limitations of this wetland delineation should be recognized.

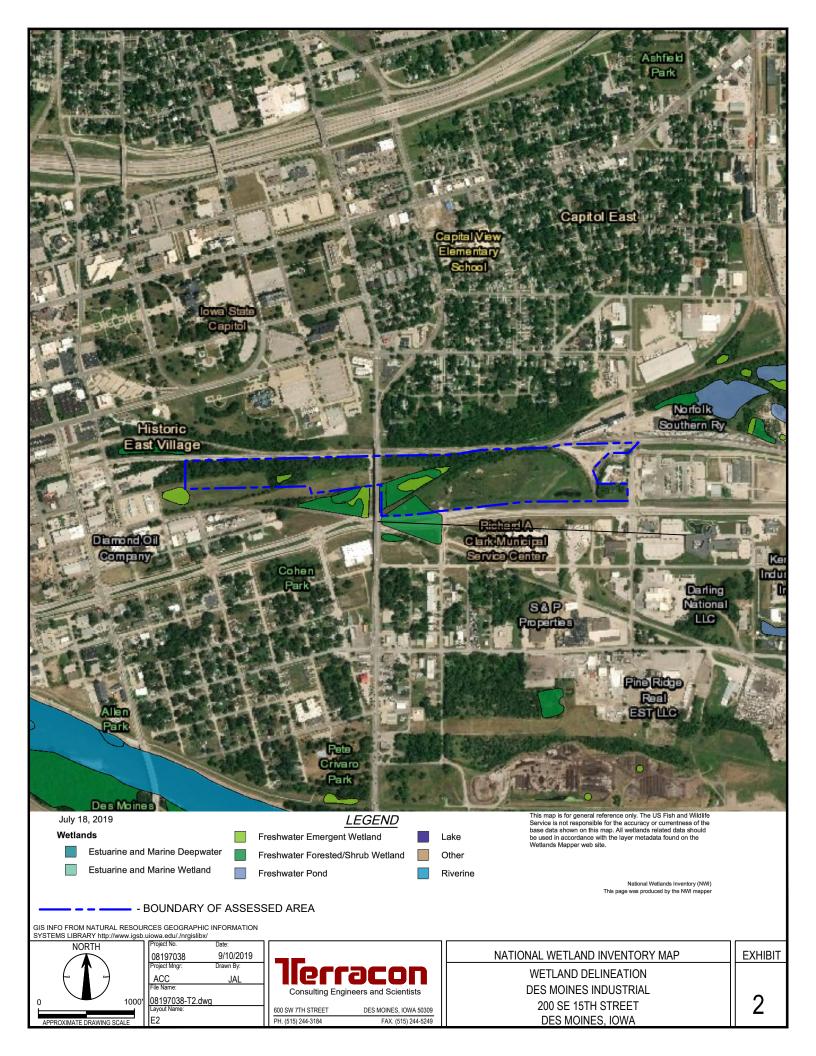
Des Moines Area Transloading Facility Des Moines, Iowa September 12, 2019 Terracon Project No. 08197038

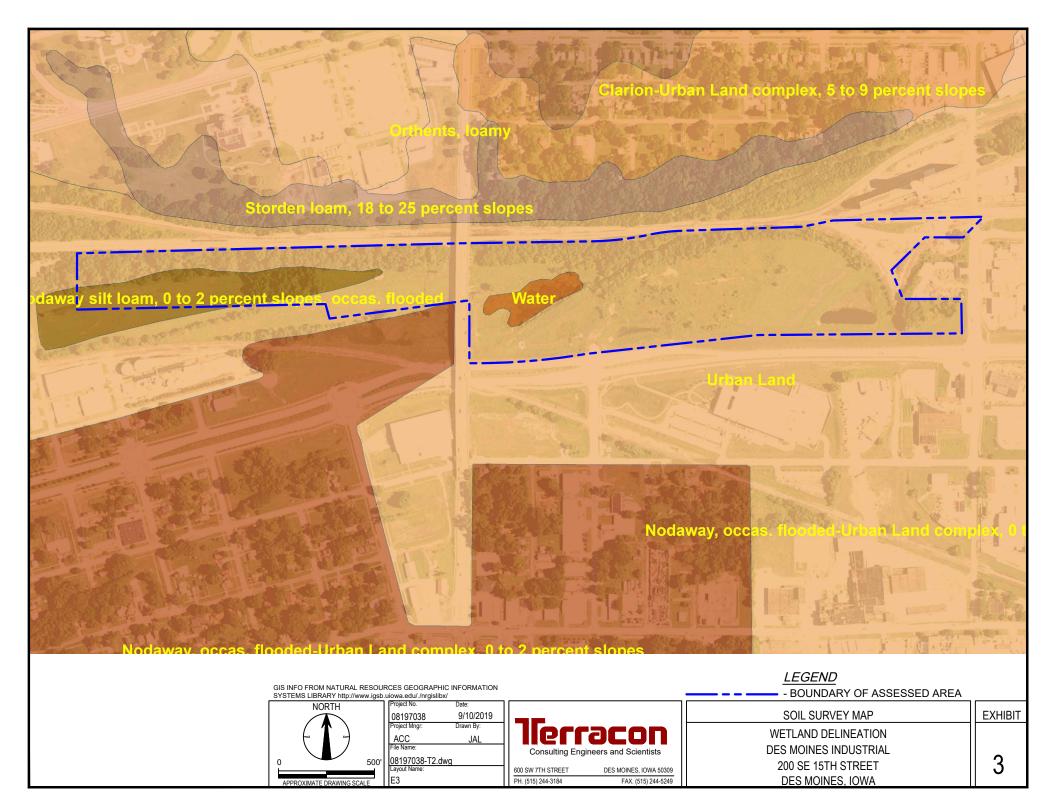


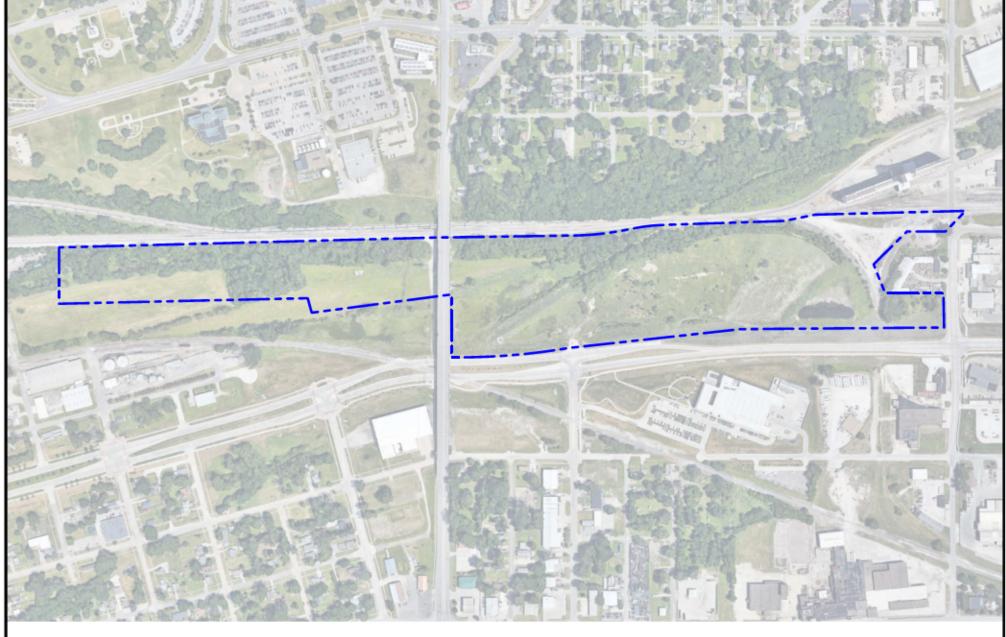
This report has been prepared in accordance with generally accepted scientific and engineering evaluation practices. This report is for the exclusive use of the client for the project being discussed. No warranties, either express or implied, are intended or made.

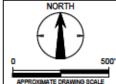
APPENDIX A Exhibits











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LEGEND

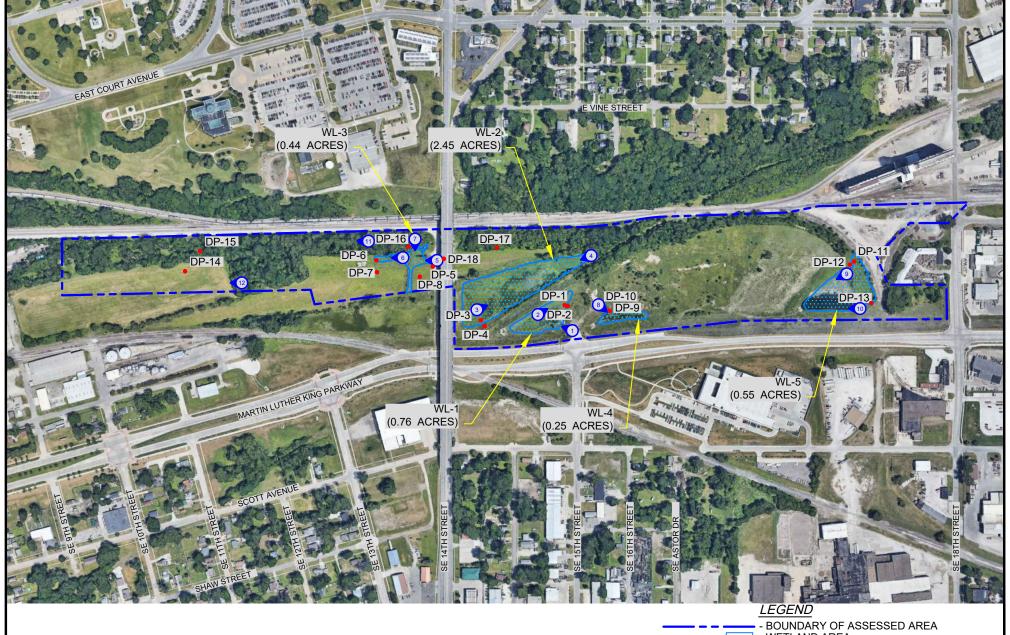
- BOUNDARY OF ASSESSED AREA

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WETLAND DELINEATION
DES MOINES INDUSTRIAL
200 SE 15TH STREET

DES MOINES, IOWA

EXHIBIT

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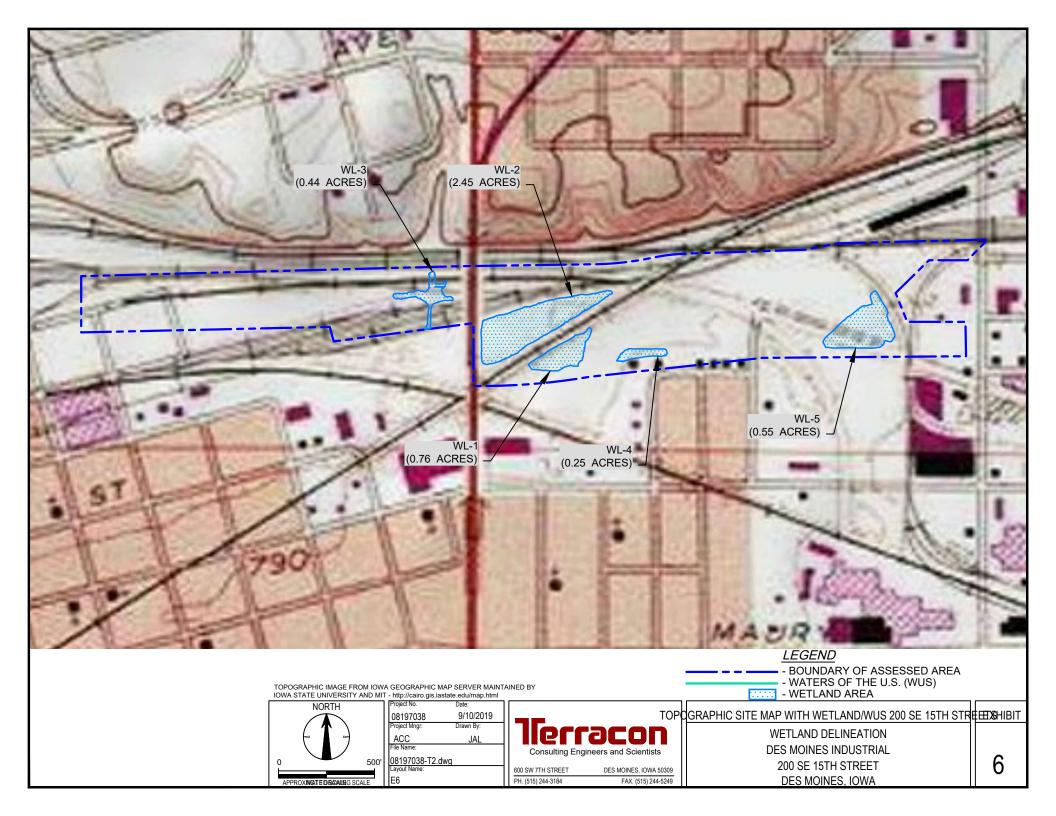
600 SW 7TH STREET DES MOINES, IOWA 50309 PH. (515) 244-3184

FAX. (515) 244-5249

- WETLAND AREA
- DATA POINT 200 SE 15TH STREET

- PHOTO 200 SE 15TH STREET & DIRECTION

WETLAND DELINEATION MAP	
WETLAND DELINEATION	
DES MOINES INDUSTRIAL	
200 SE 15TH STREET	
DES MOINES, IOWA	



APPENDIX B Aerial Photographs





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- BOUNDARY OF ASSESSED AREA

2017 AERIAL PHOTO (INFRARED)

WETLAND DELINEATION DES MOINES INDUSTRIAL 200 SE 15TH STREET DES MOINES, IOWA





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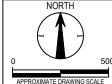
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- BOUNDARY OF ASSESSED AREA

2015 AERIAL PHOTO (INFRARED)

WETLAND DELINEATION DES MOINES INDUSTRIAL 200 SE 15TH STREET DES MOINES, IOWA





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FAX. (515) 244-5249

2014 AERIAL PHOTO (INFRARED)

- BOUNDARY OF ASSESSED AREA

WETLAND DELINEATION DES MOINES INDUSTRIAL 200 SE 15TH STREET DES MOINES, IOWA





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PH. (515) 244-3184

2013 AERIAL PHOTO (INFRARED)
WETLAND DELINEATION
DES MOINES INDUSTRIAL
200 SE 15TH STREET

DES MOINES, IOWA

- BOUNDARY OF ASSESSED AREA

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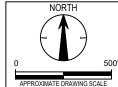
- BOUNDARY OF ASSESSED AREA

2011 AERIAL PHOTO (INFRARED)

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2010 AERIAL PHOTO (INFRARED)

WETLAND DELINEATION DES MOINES INDUSTRIAL 200 SE 15TH STREET DES MOINES, IOWA EXHIBIT

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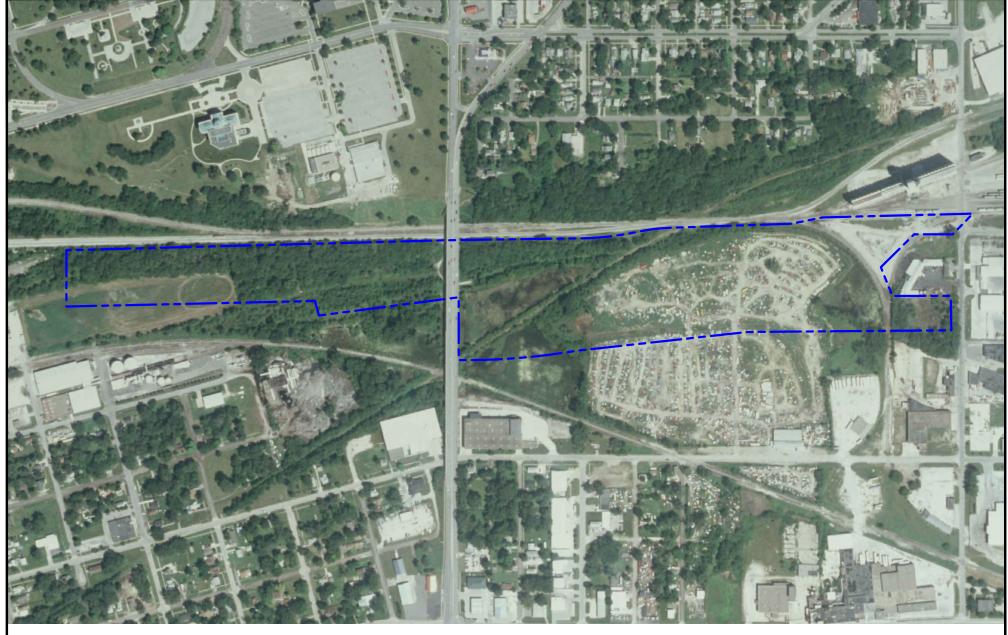
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- BOUNDARY OF ASSESSED AREA

2009	AERIAL	PHOTO

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- BOUNDARY OF ASSESSED AREA

2008 AERIAL PHOTO
WETLAND DELINEATION
DES MOINES INDUSTRIAL
200 SE 15TH STREET
DES MOINES, IOWA





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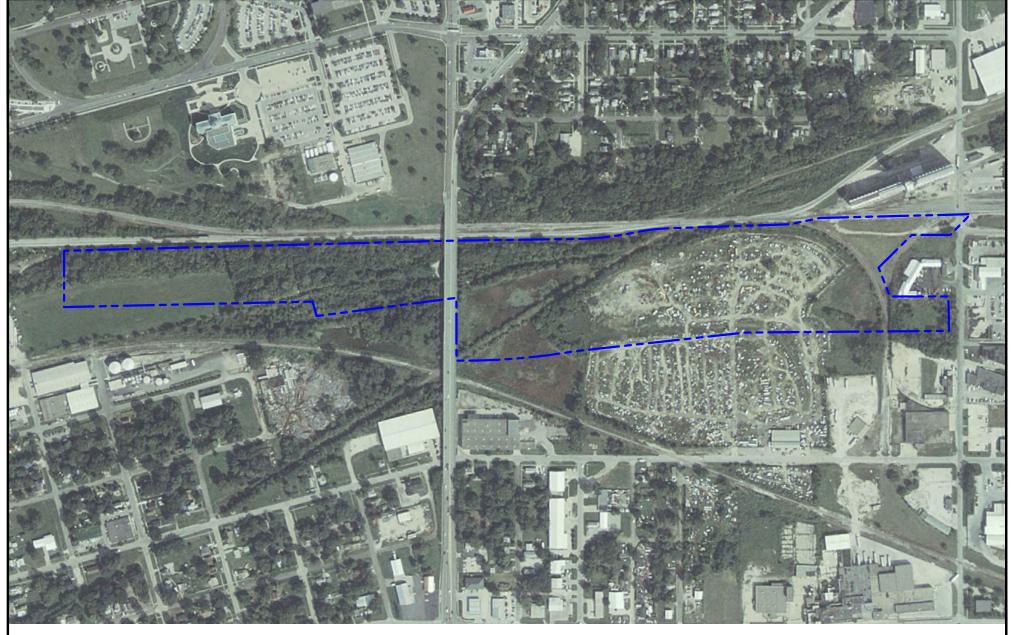
FAX. (515) 244-5249

PH. (515) 244-3184

2007 AERIAL PHOTO
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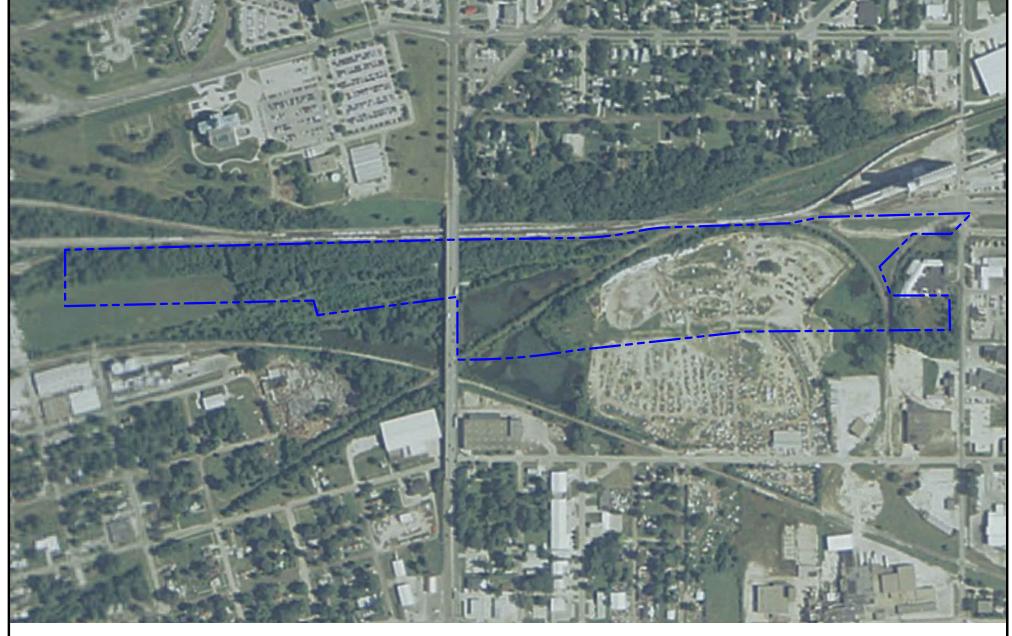
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- BOUNDARY OF ASSESSED AREA

2006	AERIAL	PHOTO

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2005 AERIAL PHOTO
WETLAND DELINEATION
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200 SE 15TH STREET
DES MOINES, IOWA

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- BOUNDARY OF ASSESSED AREA

2004 AERIAL PHOTO
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DES MOINES, IOWA

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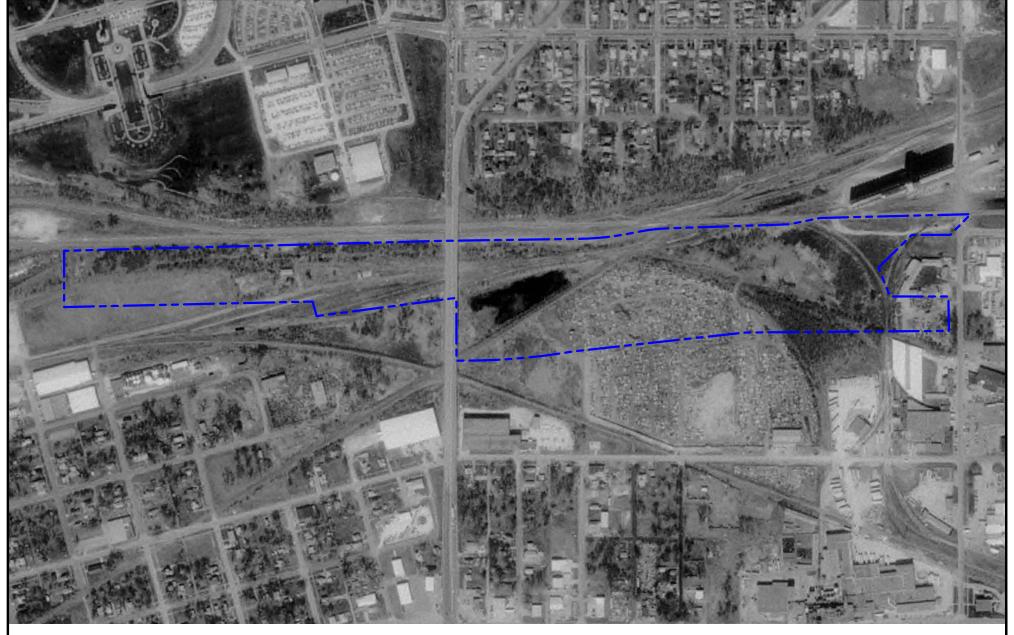
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2002 AERIAL PHOTO (INFRARED)

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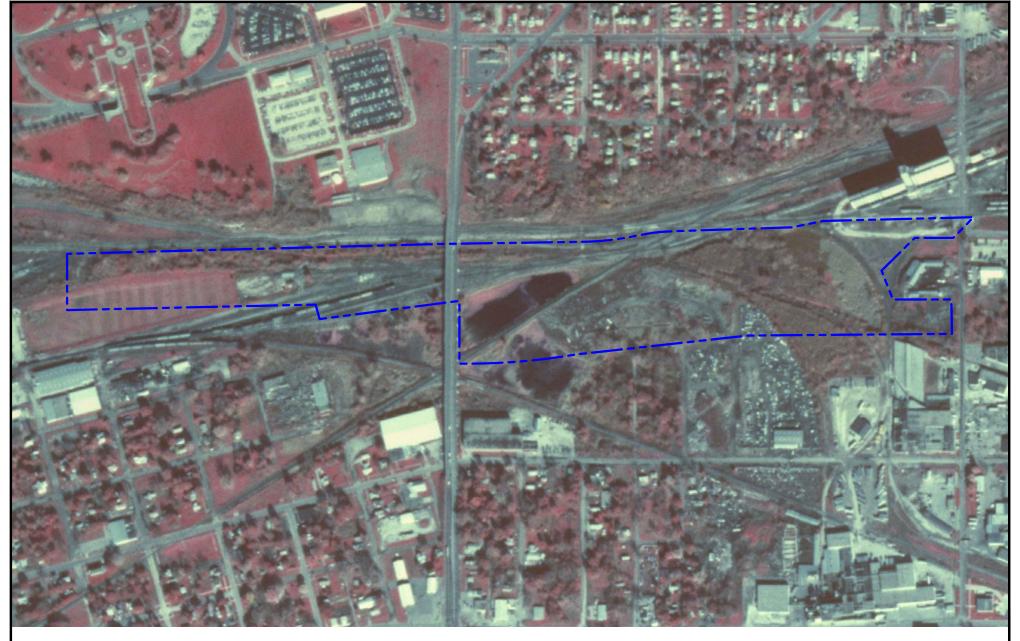
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1990s AERIAL PHOTO
WETLAND DELINEATION
DES MOINES INDUSTRIA
200 SE 15TH STREET

DES MOINES, IOWA

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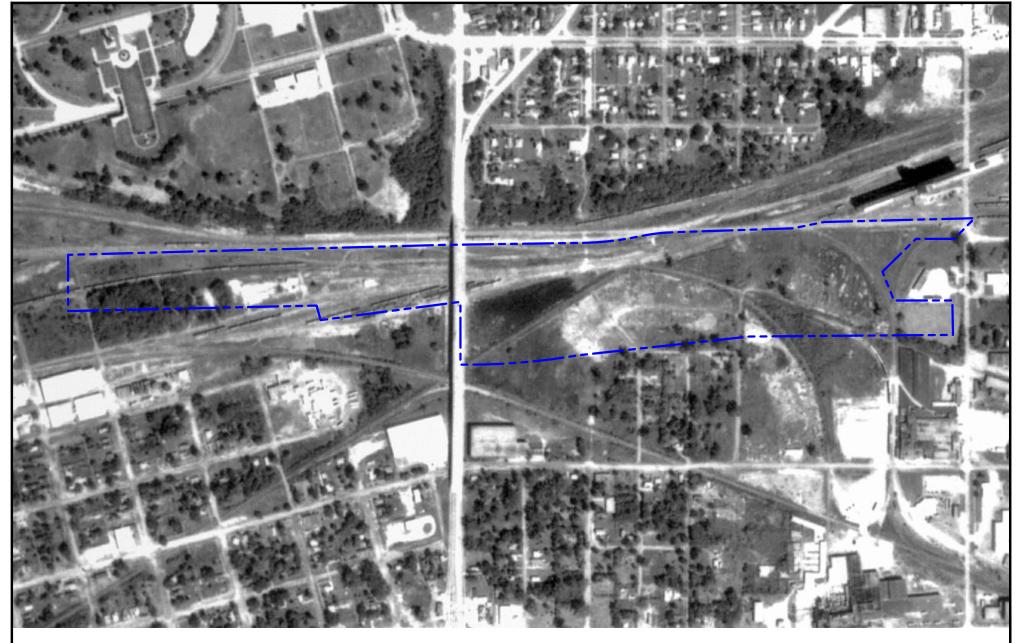
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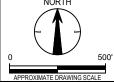
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1970s AERIAL PHOTO
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DES MOINES INDUSTRIAL
200 SE 15TH STREET

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DES MOINES, IOWA





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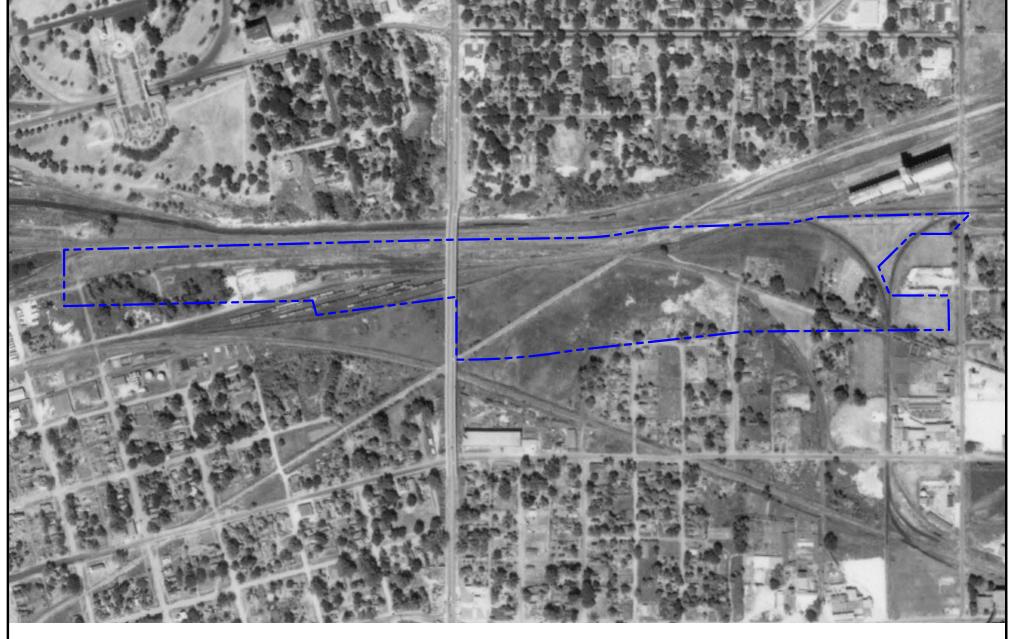
Terracon Consulting Engineers and Scientists

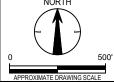
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<u>LEGEND</u> - BOUNDARY OF ASSESSED AREA

1960s AERIAL PHOTO	EXHIBIT
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DES MOINES INDUSTRIAL	
200 SE 15TH STREET	-
DES MOINES, IOWA	





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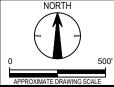
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1950s AERIAL PHOTO	EXHIBIT
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DES MOINES INDUSTRIAL	
200 SE 15TH STREET	_
DES MOINES, IOWA	





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1930s AERIAL PHOTO	EXHIBIT
WETLAND DELINEATION	
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200 SE 15TH STREET	_
DES MOINES, IOWA	

APPENDIX CWetland Determination Data Forms

Project/Site:	Des Moines Area Transloading Facility C		City/County: Des Moine		es, Polk Sampling Date: 7/2	3/19	
Applicant/Owner:	Des Moines Industrial			State:	IA Sampling Point: DP	-1	
Investigator(s):	A. Corcoran/K. John	son	Section, Township Range: Sec. 2, Twp. 78N, R 24W				
Landform (hillslope,	terrace, etc.): Stormwater ba	concave, cor	nvex, none): Concave				
Slope (%):	Lat: 41°35'10.44"		Long: 93°3	5'49.56"	Datum: WL-1		
Soil Map Unit Name	: Urban Land	_		NV	VI Classification: Yes – PSS1Cx		
Are climatic/hydrologic	conditions on the site typical for this	time of year	? Yes		No (If no, explain in Re	marks)	
Are vegetation N	soil N or hydrology N	significant	ly disturbed?	Are "Norma	al Circumstances" present? Y X	N	
Are vegetation N	soil N or hydrology N	significant	ly problematic?	? (if neede	ed, explain any answers in Remarks)		
SUMMARY OF FI	NDINGS – Attach site map sh	owing san	npling point l	ocations, tr	ransects, important features, etc.		
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Within a Wetland?							
Remarks: Wetland		water rete	ntion basin. W	etland Area	1 does not appear to be associate	d with a	
	Jse scientific names of plants.						
Tree Stratum >3" DBI	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:		
1		70 COVE	Species:	Status	Number of Dominant Species that are OBL, FACW, or FAC (A):	2	
3					Total Number of Dominant Species		
4					Across All Strata (B):	2	
5					Percent of Dominant Species That	100	
	20% Total Cover		= Total Cov	er	are OBL, FACW, or FAC (A/B):		
Sapling/Shrub Stratur	<u>m</u> <3" DBH or > 1 m tall (Plot	size: 15' rad	dius)		Prevalence Index Worksheet:		
1					Total % Cover of: Multi	oly by:	
2					OBL species X 1		
3					FACW species X 2		
5					FAC species X 3 _ X 4		
	20% Total Cover		= Total Cov	l er	UPL species X 5		
					Totals (A) (B)		
Herb Stratum non-wo	oody or woody < 1 m tall (Plot	size: 5' radi	us)		Prevalence Index = B/A =		
1 Scirpus atrovirens	s (Dark Green Bulrush)	40	Υ	OBL	Hydrophytic Vegetation Indicator	s:	
2 Carex vulpinoidea	, , ,	25	Υ	FACW	X 1-Rapid Test for Hydrophyti	_	
3 Typha latifolia (Ca		15	N	OBL	2-Dominance Test is > 50%	1	
4 Schoenopiectus to Bulrush)	abernaemontani (Softstem	15	N	OBL	3-Prevalence Index is ≤3.0¹		
6					4-Morphological Adaptation	s	
7					(Provide supporting data in		
8					Remarks)		
9					Problematic Hydrophytic Ve	getation	
10 11					¹ Indicators of hydric soil and wetla	ad	
12					hydrology must be present, unless	IG	
50% Total Cover	20% Total Cover 19	95	= Total Cov	er	disturbed or problematic.		
Woody Vine Stratum	> 1 m tall (Plot size: 30						
1		,			- Hydrophytic		
2					Vegetation Yes X No)	
1					Present?	_	
	20% Total Cover		= Total Cov	er			
Remarks: Wetland	d vegetation was dominant and pas	ses the FA	C-Neutral test.				

Profile D	Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.)								
Depth	enth Matrix Redox Features								
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-3	10YR 2/1	100	Color (Moist)	70	Турс	200	Silty clay		
3-18	10YR 2/1		5Y 4/1	90	D	М	SA-Silty Clay	Depletion with redox	
¹ Type: C=	Concentration, D=D	epletion,	RM=Reduced Matrix	k, CS=C	overed o	r Coated S	and Grains.	2 Location: PL=Pore Lining, M=Matrix	
	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sedox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Peat or Peat (S3) Loamy Matrix, CS=Covered or Coated Sand Grains. 2 Location: PL=Pore Lining, M=Matrix 1 Indicator for Problematic Hydric Soils ³ : Indicator for Problematic Hydric Soils ³ : Coast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Other (Explain in Remarks) To high Cartes of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
	ve Layer (if obse	•	,					·	
Type: Depth (ind	ches):				١,	Hvdric Sc	oil Present?	Yes X No	
-	Remarks: Soil displayed a depleted matrix.								
HYDRO	LOGY								
Primary Ir S S S S S S S S S S S S S S S S S S									
Surface V Water Tal Saturation (includes	Field Observations: Surface Water Present? Yes No X Depth: NA in Water Table Present? Yes X No Depth: 3 in Saturation Present? Yes X No Depth: 0 in Wetland Hydrology Present Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:									

Project/Site:	Des Moines Area Transloading	g Facility	City/County:	Des Moin	es, Polk Sampling Date: 7/23/19			
Applicant/Owner:	Des Moines Industrial	<u> </u>	State: IA Sampling Point: DP-					
Investigator(s):	A. Corcoran/K. Jo	hnson	Section, Township Range: Sec. 2, Twp. 78N, R 24W					
Landform (hillslope,	terrace, etc.): Basin slope	concave, co	nvex, none): None					
Slope (%):	Lat: 41°35'10.44"	5'49.56"	Datum: Upland					
Soil Map Unit Name	e: Urban Land	VI Classification: Not identified						
Are climatic/hydrologic	conditions on the site typical for t	his time of yea	ar? Yes		No (If no, explain in Remarks)			
Are vegetation N	soil N or hydrology N	significan	tly disturbed?	Are "Norma	al Circumstances" present? Y X N			
Are vegetation N	soil N or hydrology N	significan	tly problematic	? (if need	ed, explain any answers in Remarks)			
			mpling poin	t locations,	transects, important features, etc.			
Hydrophytic Vegeta		No X	_ le the	Sampled A	roa			
Hydric Soil Present' Wetland Hydrology		No X No X		a Wetland?				
		-	_					
Remarks: Data po	oint was taken on the basin slo	pe.						
VEGETATION - I	Jse scientific names of plan	•	T5 · ·	T	T			
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
2					Number of Dominant Species that are OBL, FACW, or FAC (A):			
3					Total Number of Dominant Species			
4					Across All Strata (B):			
5					Percent of Dominant Species That			
	20% Total Cover		= Total Cov	/er	are OBL, FACW, or FAC (A/B):			
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plo	ot size: 15' ra	dius)		Prevalence Index Worksheet:			
1					Total % Cover of: Multiply by:			
2					OBL species X 1			
3					FACW species X 2			
5					FAC species X 3 FACU species X 4			
<u> </u>	20% Total Cover		= Total Cov	/or	UPL species X 5			
			= 10tal C0	/ei	Totals (A) (B)			
Herb Stratum non-wo	oody or woody < 1 m tall (Plo	ot size: 5' rad	us)		Prevalence Index = B/A =			
1 Lotus corniculatu	s (Birdsfoot Trefoil)	60	Y	FACU	Hydrophytic Vegetation Indicators:			
	nsis (Canada Goldenrod)	10	N	FACU	1-Rapid Test for Hydrophytic Veg			
3 Panicum virgatun		10	N	FAC	2-Dominance Test is > 50%			
	icea (Reed Canary Grass)	5	N	FACW	3-Prevalence Index is ≤3.0¹			
6 Erigeron annuus	(Daisy Fleabane)	5	N	FACU	4-Morphological Adaptations			
7 8					(Provide supporting data in Remarks)			
9					Problematic Hydrophytic			
10					Vegetation ¹ (Explain)			
11					¹ Indicators of hydric soil and wetland			
12					hydrology must be present, unless			
50% Total Cover	20% Total Cover18	90	= Total Cov	/er	disturbed or problematic.			
Woody Vine Stratum	> 1 m tall (Plot size:	30' radius)						
1	· ·				Hydrophytic			
2					Vegetation Yes No X			
1					Present?			
	20% Total Cover		= Total Cov	/er				
Remarks: Wetland	d vegetation was not dominant.							

SOIL DP-2 Sampling Point: Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.) Depth Matrix Redox Features Remarks (inches) Color (moist) % Color (Moist) Type¹ Loc² Texture 0-10 10YR 3/2 100 Lean clay ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 2 Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicator for Problematic Hydric Soils³: Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) Sandy Redox (S5) Histic Epipedon (A2) Iron-Manganese Masses (F12) Black Histic (A3) Stripped Matrix (S6) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) ³ Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be present, unless 5 cm Mucky Peat or Peat (S3) disturbed or problematic. Restrictive Layer (if observed): Type: Rock? Depth (inches): 10 **Hydric Soil Present?** Hydric indicators were not observed. Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of 2 required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Drainage Patterns (B10) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Hydrogen Sulfide Odor (C1) Water Marks (B1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction on Tilled Soil (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery(B7) Gauge or Well Data (D9) Sparse Vegetated Concave Surface(B8) Other (Explain in Remarks) Field Observations: _ Depth: Surface Water Present? Yes Yes ____ Water Table Present? X Depth: No in X Depth: Saturation Present? No in **Wetland Hydrology Present** Yes No X (includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was not observed.

Project/Site:	Des Moines Area Transloading F	acility (City/County:	Des Moine	es, Polk	Sampling Date:	7/23/19
Applicant/Owner:	Des Moines Industrial			State:	IA S	Sampling Point:	DP-3
Investigator(s):	A. Corcoran/K. John	Sec. 2, Tv	vp. 78N, R 24W	1			
Landform (hillslope,	terrace, etc.): Stormwater Ba	sin L	ocal Relief (c	concave, con	nvex, none):	Concave	
Slope (%):	Datum:	WL-2					
Soil Map Unit Name	e: Urban Land	,		NW	VI Classificatio	n: Yes-PSS	1Cx/PEM1Fx
Are climatic/hydrologic	conditions on the site typical for this	time of year	? Yes		No	(If no, explain	in Remarks)
Are vegetation N	soil N or hydrology N	significantl	y disturbed?	Are "Norma	al Circumstance	s" present?	Y X N
Are vegetation N	soil N or hydrology N	significantl	y problematic?	? (if neede	ed, explain any	answers in Rem	narks)
SUMMARY OF F	INDINGS – Attach site map sh	owing sam	pling point l	ocations, tr	ansects, imp	ortant features	s, etc.
Hydrophytic Vegeta		No	_ le the	Sampled Ar	202		
Hydric Soil Present' Wetland Hydrology		No No		a Wetland?		<u> </u>	No
Remarks: Wetlan WOUS	d Area 2 is located in a City storm	nwater reter	ntion basin. W	etland Area	2 does not ap	pear to be asso	ociated with a
VEGETATION - I	Use scientific names of plants.						
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance	Test Workshee	t:
1 2						ominant Species CW, or FAC (A):	
3					=	er of Dominant S	
4					Across All St	` '	
5	20% Total Cover					ominant Species CW, or FAC (A/E	
	20% Total Covel		= Total Cov	er	ale OBL, I A	CW, OI I AC (A/I	
Sapling/Shrub Stratu	\underline{m} <3" DBH or > 1 m tall (Plot s	size: 15' rad	ius)		Prevalence	Index Workshe	et:
1					Total % C		Multiply by:
2					OBL species		
3					FACW species		(2 (3
5					FACU species		
	20% Total Cover		= Total Cov	er	UPL species		. 5
		. 51 11	``		Totals (A) ((B)
		size: 5' radiu	ıs)		Prevale	nce Index = B/A	\ =
1 Schoenoplectus t Bulrush)	tabernaemontani (Softstem	40	Y	OBL	Hydrophytic	Vegetation Ind	licators:
-	s (Dark Green Bulrush)	35	Y	OBL		pid Test for Hydr	
	tus (Yellow Nut Sedge)	10	N	FACW		minance Test is evalence Index is	
6						rphological Adar	
7						ide supporting d	
8					Rema	· · · · · ·	
9						lematic Hydroph	ytic Vegetation
10					┥ ` '	plain)	
11						of hydric soil and ust be present, u	
50% Total Cover	20% Total Cover 17	85	= Total Cov	l	disturbed or		1111033
			- Total Gov			-	
Woody Vine Stratum	> 1 m tall (Plot size: 30	radius)	1		╡		
2					Hydrophyti Vegetation		No
1					Present?	. 163 <u>A</u>	_ 110
	20% Total Cover		= Total Cov	er			
Remarks: Wetland	d vegetation was dominant and pas	ses the FA0			l		
	·						

Profile D	Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.)								
Depth	Matrix		Redox Features						
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-8	10YR 3/1	90	2.5YR 4/6	10	С	М	Lean clay	Redox and lots of organics	
8-18			10YR 5/1	80	D	М	Lean Clay	Depletion with redox	
¹Type: C=	L Concentration D=De	epletion	RM=Reduced Matrix	CS=C	Covered o	r Coated S	and Grains	L 2 Location: PL=Pore Lining, M=Matrix	
H	Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Redox (S5) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sendy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sendy Mucky Mineral (S1) Redox Depressions (F8) Indicator for Problematic Hydric Soils ³ : Coast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Other (Explain in Remarks) Jandicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Restricti Type:	Restrictive Layer (if observed):								
Depth (inc	· ·			_ _		Hydric Sc	oil Present?	Yes <u>X</u> No	
Remarks:	Remarks: Soil displayed redox dark surface and depleted matrix.								
HYDRO	LOGY								
Primary Ir S X F X S V S C Ir Ir									
Surface V Water Tal Saturation (includes	Field Observations: Surface Water Present? Yes								
Describe	Trecorded Data (Sti		uge, monitoring wei	ı, acııa	piiotos,	previous i		available.	
Remarks:	Remarks: Wetland appears to be receiving hydrology from surface water runoff and City stormwater.								

Project/Site:	Des Moines Area Transloading	g Facility	City/County:	Des Moin	es, Polk Sampling Date: 7/23/19			
Applicant/Owner:	Des Moines Industrial			State:	IA Sampling Point: DP-4			
Investigator(s):	A. Corcoran/K. Jo	hnson	Section, Township Range: Sec. 2, Twp. 78N, R 24W					
Landform (hillslope,	terrace, etc.): Basin Slope		Local Relief (concave, co	nvex, none): None			
Slope (%):	Lat: 41°35'10.44''		Long: 93°3	5'49.56"	Datum: Upland			
Soil Map Unit Name	e: Urban Land			NV	VI Classification: Not identified			
Are climatic/hydrologic	conditions on the site typical for t	his time of yea	ar? Yes	X	No (If no, explain in Remarks)			
Are vegetation N	soil N or hydrology N	significant	ly disturbed?	Are "Norma	al Circumstances" present? Y X N			
Are vegetation N	soil N or hydrology N	significant	ly problematic	? (if need	ed, explain any answers in Remarks)			
		showing sa	mpling poin	t locations,	transects, important features, etc.			
Hydrophytic Vegeta		roa v						
Hydric Soil Present' Wetland Hydrology		No X		Sampled Ai a Wetland?				
	·		_					
Remarks: Data po	oint was taken on the basin slo	pe upland of	WL-2.					
VEGETATION -	Use scientific names of plant			T	T			
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
2					Number of Dominant Species that are OBL, FACW, or FAC (A):			
3					Total Number of Deminant Species			
4					Across All Strata (B):			
5					Percent of Dominant Species That			
	20% Total Cover		= Total Cov	/er	are OBL, FACW, or FAC (A/B):			
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plo	ot size: 15' ra	dius)		Prevalence Index Worksheet:			
1					Total % Cover of: Multiply by:			
2					OBL species X 1			
3					FACW species X 2			
5					FAC species X 3 FACU species X 4			
<u> </u>	20% Total Cover		= Total Cov	/or	UPL species X 5			
			- Total Co	/GI	Totals (A) (B)			
Herb Stratum non-wo	oody or woody < 1 m tall (Plo	ot size: 5' radi	us)		Prevalence Index = B/A =			
1 Lotus corniculatu	s (Birdsfoot Trefoil)	40	Y	FACU	Hydrophytic Vegetation Indicators:			
	ndinacea (Tall Fescue)	20	Y	FACU	1-Rapid Test for Hydrophytic Veg			
	nsis (Canada Goldenrod)	10	N	FACU	2-Dominance Test is > 50%			
	is (Yellow Sweetclover)	10	N	FACU	3-Prevalence Index is ≤3.0 ¹			
7					4-Morphological Adaptations (Provide supporting data in			
8					Remarks)			
9					Problematic Hydrophytic			
10					Vegetation ¹ (Éxplain)			
11					¹ Indicators of hydric soil and wetland			
12	000/ T + 1 0 40				hydrology must be present, unless			
50% Total Cover	20% Total Cover16	80	= Total Cov	/er	disturbed or problematic.			
Woody Vine Stratum	> 1 m tall (Plot size: 3	30' radius)						
1					Hydrophytic			
2					Vegetation Yes No X			
1	200/ T-t-L C				Present?			
	20% Total Cover		= Total Cov	/er				
Remarks: Wetland	d hydrology was not observed.							

SOIL DP-4 Sampling Point: Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.) Depth Matrix Redox Features Remarks (inches) Color (moist) % Color (Moist) Type¹ Loc² Texture 0-18 10YR 5/4 100 Lean clay ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 2 Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicator for Problematic Hydric Soils³: Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) Sandy Redox (S5) Histic Epipedon (A2) Iron-Manganese Masses (F12) Black Histic (A3) Stripped Matrix (S6) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) ³ Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be present, unless 5 cm Mucky Peat or Peat (S3) disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): **Hydric Soil Present?** Hydric indicators were not observed. Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of 2 required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Drainage Patterns (B10) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Hydrogen Sulfide Odor (C1) Water Marks (B1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction on Tilled Soil (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery(B7) Gauge or Well Data (D9) Sparse Vegetated Concave Surface(B8) Other (Explain in Remarks) Field Observations: _ Depth: Surface Water Present? Yes Nο Yes ____ Water Table Present? X Depth: No in X Depth: Saturation Present? No in **Wetland Hydrology Present** Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was not observed.

Due in at/Cita	'acility (2:to://2 = to	Dan Main	as Dalle Comming Date: 7/22/40	<u> </u>
Project/Site: Des Moines Area Transloading F	acility (City/County:	Des Moine		9
Applicant/Owner: Des Moines Industrial		Dootion Tour	_ State:	IA Sampling Point: DP-5	
Investigator(s): A. Corcoran/K. John		Section, Town			
Landform (hillslope, terrace, etc.): Grassland	_	_ocal Relief (c			
Slope (%): Lat: 41°35'10.44"		_ong: <u>93°3</u>	5'49.56''	Datum: WL-3	
Soil Map Unit Name: Urban land		2 1/		/I Classification: Not identified	
Are climatic/hydrologic conditions on the site typical for this	-			No (If no, explain in Remar	•
Are vegetation N soil N or hydrology N		ly disturbed?		al Circumstances" present? Y X N	'
Are vegetation N soil N or hydrology N	significanti	ly problematic?	? (If neede	ed, explain any answers in Remarks)	
SUMMARY OF FINDINGS – Attach site map sh	owing sam	npling point l	ocations, tr	ansects, important features, etc.	
	No	_ lo the G	Campled Ar		
	No		Sampled Ar a Wetland?		
Wetland Hydrology Present? Yes X	No		a Welland:		
Remarks: Wetland Area 3 is located in a somewhat properties through the east-central portion of the wetland. Wetland Area 3 is located in a somewhat properties that the somewhat provided in a somewhat prov	o be a storm	nwater drainag	e ditch for the	e adjacent north railroad. The ditch cuts o	down
VEGETATION – Use scientific names of plants.					
<u>Tree Stratum</u> >3" DBH (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1				Number of Dominant Species that	2
2				are OBL, FACW, or FAC (A):	
4				Total Number of Dominant Species Across All Strata (B):	2
5				Percent of Dominant Species That	
20% Total Cover		= Total Cov	er	are OBL, FACW, or FAC (A/B):	100
Sapling/Shrub Stratum <3" DBH or > 1 m tall (Plot	size: 15' rad	lius)		Prevalence Index Worksheet:	
1					ov:
2				OBL species X 1	
3				FACW species X 2	
4				FAC species X 3	
5				FACU species X 4	
20% Total Cover		= Total Cov	er	UPL species X 5	
Herb Stratum non-woody or woody < 1 m tall (Plot	size: 5' radiu	us)		Totals (A) (B)	
, , ,		<u>, </u>	EA 0)4/	Prevalence Index = B/A =	
Phalaris arundinacea (Reed Canary Grass) Scirpus atrovirens (Dark Green Bulrush)	80 20	Y	FACW OBL	Hydrophytic Vegetation Indicators: X 1-Rapid Test for Hydrophytic Ve	20
3	20	'	OBL	2-Dominance Test is > 50%	- 9
4				3-Prevalence Index is ≤3.0¹	
6				4-Morphological Adaptations	
7				(Provide supporting data in	
8				Remarks)	
9 10				Problematic Hydrophytic Vegeta 1 (Explain)	ation
50% Total Cover 20% Total Cover 20	400	T. (.) (0		(Explain)	
Woody Vine Stratum > 1 m tall (Plot size: 30	100 1' radius)	= Total Cov	er		
	i raulus)	1		II alamata da	
2				Hydrophytic Vegetation Yes X No	
1				Present?	
20% Total Cover		= Total Cov	er	1	
Remarks: Wetland vegetation was dominant and pas	sses the FA0			<u> </u>	

Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.)																
		cribe to	the depth needs		x Featur		cator to con	Irm the absence of indicators.)								
Depth (inches)	Matrix	%	Color (Moiot)	%		Loc ²	Toytura	Remarks								
(inches)	Color (moist)		Color (Moist)		Type ¹		Texture	5.								
0-8	10YR 2/1	90	2.5YR 4/6	10	С	М	Sandy clay	Redox								
¹Type: C=	Concentration, D=D	epletion,	RM=Reduced Matri	x, CS=C	overed o	r Coated S	Sand Grains.	2 Location: PL=Pore Lining, M=Matrix								
	oil Indicators:	<u> </u>		,				Indicator for Problematic Hydric Soils ³ :								
	listosol (A1)		Sar	idy Gley	ed Matri	x (S4)		Coast Prairie Redox (A16)								
H	listic Epipedon (A2)		idy Red		, ,	_	Iron-Manganese Masses (F12)								
	Black Histic (A3)				atrix (S6)			Other (Explain in Remarks)								
	Hydrogen Sulfide (A		Loa	my Muc	ky Miner	ral (F1)										
	Stratified Layers (A5	5)			yed Matri											
	cm Muck (A10)				atrix (F3)											
	Depleted Below Dar															
	hick Dark Surface				ark Surfa			³ Indicators of hydrophytic vegetation and								
	Sandy Mucky Miner			lox Dep	ressions	(F8)		wetland hydrology must be present, unless								
5	cm Mucky Peat or	Peat (S	3)					disturbed or problematic.								
Restricti	ve Layer (if obse	rved):														
Type:	Sand?															
Depth (ind	ches): 8				ŀ	Hydric So	oil Present?	Yes <u>X</u> No								
Remarks:	Soil displayed r	edox da	rk surface.		1											
HYDRO	LOGY					HYDROLOGY										
	Hydrology Indica	ators:														
Wetland Primary Ir	ndicators (minimum						<u>Se</u>	condary Indicators (minimum of 2 required)								
Wetland Primary Ir	ndicators (minimum Burface Water (A1)	of one	Wa	ter-Stair	ned Leav		<u>Se</u>	Surface Soil Cracks (B6)								
Wetland Primary Ir S X	ndicators (minimum Surface Water (A1) High Water Table (<i>A</i>	of one	Wa Aqu	ter-Stair ıatic Faı	ned Leav una (B13	5)	<u>Se</u>	Surface Soil Cracks (B6) Drainage Patterns (B10)								
Wetland Primary Ir S X S	ndicators (minimum Burface Water (A1) High Water Table (A Baturation (A3)	of one	Wa Aqu Tru	ter-Stair ıatic Faı e Aquat	ned Leav una (B13 ic Plants	(B14)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)								
Wetland Primary Ir S X X Y	ndicators (minimum Surface Water (A1) High Water Table (A Saturation (A3) Vater Marks (B1)	of one	Wa Aqu Tru Hyd	ter-Stair ıatic Faı e Aquat Irogen S	ned Leav una (B13 ic Plants Sulfide Od	(B14) dor (C1)	X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)								
Wetland Primary Ir S X H X S U S S S S S S S S S S S S S S S S S	ndicators (minimum Surface Water (A1) High Water Table (A Saturation (A3) Vater Marks (B1) Sediment Deposits (of one	Wa Aqu Tru Hyc Oxid	ter-Stair ıatic Fau e Aquat Irogen S ized Rhiz	ned Leav una (B13 ic Plants Sulfide Od ospheres d	(B14) dor (C1) on Living Ro	X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)								
Wetland Primary Ir S X H X S V S S C D	ndicators (minimum Surface Water (A1) High Water Table (A Saturation (A3) Vater Marks (B1) Sediment Deposits (Drift Deposits (B3)	of one (A2)	Wa Aqu Tru Hyc Oxid	ter-Stair latic Fau e Aquat Irogen S lized Rhiz sence o	ned Leav una (B13 ic Plants Sulfide Oc ospheres of f Reduce	(B14) dor (C1) on Living Ro ed Iron (C4	x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)								
Wetland Primary Ir S X H X S V S C C A	ndicators (minimum Burface Water (A1) High Water Table (A Baturation (A3) Vater Marks (B1) Bediment Deposits (Drift Deposits (B3) Algal Mat or Crust (I	of one (A2)	Wa Aqu Tru Hyc Oxid Pre	ter-Stair latic Fau e Aquat Irogen S lized Rhiz sence o ent Iron I	ned Leavuna (B13) ic Plants Sulfide Occospheres of Reduce Reduction	(B14) (B14) dor (C1) on Living Ro ed Iron (C4 on Tilled S	x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)								
Wetland Primary Ir S X H X S V S C I I I I I	ndicators (minimum Burface Water (A1) High Water Table (A Baturation (A3) Vater Marks (B1) Bediment Deposits (Drift Deposits (B3) Algal Mat or Crust (B5) Fron Deposits (B5)	(B2) (34)	Wa Aqu Tru Hyc Oxid Pre Rec Thiu	ter-Stair latic Fale Re Aquat lrogen S lized Rhiz sence of ent Iron I	ned Leavuna (B13) ic Plants Sulfide Occoperes of Reduces Reduction Surface ((B14) (B14) dor (C1) on Living Ro ed Iron (C4) on Tilled S (C7)	x	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)								
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Project/Site:	Des Moines Area Transloading	Facility (City/County:	Des Moin	es, Polk Sampling Date: 7/23/19			
Applicant/Owner:	Des Moines Industrial			State:	IA Sampling Point: DP-6			
Investigator(s):	A. Corcoran/K. Joh	nson (Section, Towr	- nship Range	E: Sec. 2, Twp. 78N, R 24W			
Landform (hillslope,	terrace, etc.): Grassland		Local Relief (d	concave, co	nvex, none): Slightly Concave			
Slope (%):	Lat: 41°35'10.44"		Long: 93°35'49.56" Datum: WL-3					
Soil Map Unit Name	e: Urban Land			NV	WI Classification: Not identified			
Are climatic/hydrologic	conditions on the site typical for thi	is time of yea	ar? Yes	X	No (If no, explain in Remarks)			
Are vegetation N	soil N or hydrology N	significant	ly disturbed?	Are "Norma	al Circumstances" present? Y X N			
Are vegetation N	soil N or hydrology N	significant	ly problematic	? (if neede	ed, explain any answers in Remarks)			
	-		mpling point	t locations,	transects, important features, etc.			
Hydrophytic Vegeta		No	_ Is the	Sampled A	rea v v.			
Hydric Soil Present' Wetland Hydrology		No		a Wetland?				
		-						
Remarks: Data po	oint was taken on the western po	ortion of VVI	3.					
VEGETATION – I	Use scientific names of plants		I Danain and		I			
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1					Number of Dominant Species that			
2					are OBL, FACW, or FAC (A):			
4					Total Number of Dominant Species Across All Strata (B):			
5					Percent of Dominant Species That			
	20% Total Cover		= Total Cov	/er	are OBL, FACW, or FAC (A/B):			
Sapling/Shrub Stratu	m <3" DBH or > 1 m tall (Plot	size: 15' rad	dius)		Prevalence Index Worksheet:			
1								
2					OBL species X 1			
3					FACW species X 2			
4					FAC species X 3			
5	200/ Total Cover				FACU species X 4			
	20% Total Cover		= Total Cov	/er	UPL species X 5			
Herb Stratum non-wo	oody or woody < 1 m tall (Plot	size: 5' radi	us)		Totals (A) (B)			
	acea (Reed Canary Grass)	100	Y	FACW	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:			
2	icea (Need Garlary Grass)	100	'	17.000	X 1-Rapid Test for Hydrophytic Veg			
3					2-Dominance Test is > 50%			
4					3-Prevalence Index is ≤3.0¹			
6					4-Morphological Adaptations			
7 8					(Provide supporting data in Remarks)			
9					Problematic Hydrophytic			
10					Vegetation ¹ (Explain)			
11					¹ Indicators of hydric soil and wetland			
12					hydrology must be present, unless			
50% Total Cover	20% Total Cover20	100	= Total Cov	/er	disturbed or problematic.			
Woody Vine Stratum	> 1 m tall (Plot size: 30	0' radius)						
1					Hydrophytic			
2					Vegetation Yes X No			
1	200/ Total Caver				Present?			
D 1 1111	20% Total Cover	 	= Total Cov					
Remarks: Wetland	d vegetation was dominant and pa	isses the F <i>F</i>	AC-Neutral tes	τ.				

SOIL Sampling Point: DP-6
Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.)

				u to ut	Cumen	t tilo illai		irm the absence of mulcators.)		
Depth	Matrix			Red	lox Featu	ıres		Domonico		
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-10	10YR 2/1	90-95	2.5YR 4/6	5- 10	С	М	Sand Clay	Redox-Material appeared to be fill		
10-18	10YR 3/3	Material	was fill and had l		wn, white	e mottles	uith coal inclus	sions as well		
	Concentration, D=D	epletion, R	M=Reduced Matri	x, CS=C	covered or	r Coated S		2 Location: PL=Pore Lining, M=Matrix		
	oil Indicators:		_					Indicator for Problematic Hydric Soils ³ :		
	listosol (A1)				ed Matrix	x (S4)	_	Coast Prairie Redox (A16)		
	listic Epipedon (A2)			ox (S5)		_	Iron-Manganese Masses (F12)		
	Black Histic (A3)				atrix (S6)		_	Other (Explain in Remarks)		
	lydrogen Sulfide (A				ky Miner					
	Stratified Layers (A5	5)			yed Matri					
	cm Muck (A10)				latrix (F3)					
	Depleted Below Dar									
	hick Dark Surface	` ,			ark Surfa			³ Indicators of hydrophytic vegetation and		
	Sandy Mucky Miner			ox Dep	ressions	(F8)		wetland hydrology must be present, unless		
	cm Mucky Peat or	` '						disturbed or problematic.		
Restricti	ve Layer (if obse	rved):								
Type:	· · · · · · · · · · · · · · · · · · ·									
Depth (ind	ches):				H	Hydric So	oil Present?	Yes <u>X</u> No		
Remarks:	Soil displayed F	Redox Dai	k Surface.							
	, ,									
HYDRO	HYDROLOGY									
Wetland		ators:								
Primary Ir	Hydrology Indicators (minimum	ators: of one is					Sec	condary Indicators (minimum of 2 required)		
Primary Ir	Hydrology Indica	ators: of one is			ipply) ned Leav	es (B9)	Sec	Surface Soil Cracks (B6)		
Primary Ir	Hydrology Indicators (minimum	of one is	Wat	er-Stair			Sec	Surface Soil Cracks (B6) Drainage Patterns (B10)		
Primary Ir S	Hydrology Indicandicators (minimum Gurface Water (A1)	of one is	Wat Aqu True	er-Stair atic Fau Aquat	ned Leav una (B13) ic Plants) (B14)	Sec	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)		
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Primary Ir	Hydrology Indicandicators (minimum Surface Water (A1) High Water Table (A Saturation (A3) Vater Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (If on Deposits (B5) nundation Visible on Asparse Vegetated Condicators (Material Conditions)	of one is 2) B2) 34) erial Image	Wat Aqu True Hyd Oxid Pres Reco Thir Gautery(B7) Gautery Gautery Gautery Gautery Gautery Gautery Gautery Care Car	er-Stair atic Fau e Aquat rogen S ized Rhiz sence o ent Iron I n Muck S ge or V	ned Leave una (B13) ic Plants Sulfide Occospheres of f Reduce Reduction Surface ((B14) dor (C1) on Living Ro ed Iron (C4 on Tilled S (C7) (D9)	oots (C3) 4) ioil (C6) X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)		
Primary Ir S S S S Field Ob	Hydrology Indicandicators (minimum Surface Water (A1) digh Water Table (A Saturation (A3) Vater Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Augal Mat or Crust (B5) Deposits (B5) Deposi	of one is 2) B2) 34) erial Image	Wat Aqu True Hyd Oxid Pres Reco Thir Gau Cce(B8) Other	er-Stair atic Fau Aquat rogen S ized Rhiz sence o ent Iron I i Muck s ige or V er (Expl	ned Leave una (B13) ic Plants Sulfide Occospheres of f Reduce Reduction Surface ((B14) dor (C1) on Living Ro ed Iron (C4 on Tilled S (C7) (D9)	oots (C3) 4) ioil (C6) X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)		
Primary Ir S S S S S S S Field Ob	Hydrology Indicandicators (minimum Surface Water (A1) High Water Table (A Saturation (A3) Vater Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (If on Deposits (B5) nundation Visible on A Sparse Vegetated Conservations:	of one is 2) (B2) (34) erial Image cave Surfa	Wat	er-Stair atic Fau e Aquat rogen S ized Rhiz sence o ent Iron I n Muck S ge or V	ned Leave una (B13) ic Plants Sulfide Occospheres of f Reduces Reduction Surface (Vell Data ain in Re	(B14) dor (C1) on Living Ro ed Iron (C4 on Tilled S (C7) (D9) emarks)	oots (C3) 4) ioil (C6) X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)		
Primary Ir S S S S S S S Field Ob Surface W Water Tal	Hydrology Indicandicators (minimum Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (If you Deposits (B5) nundation Visible on A Sparse Vegetated Conservations:	of one is 2) (B2) (B4) (erial Image cave Surfa Yes	Wat	er-Stair atic Fau ati	ned Leave una (B13) ic Plants Sulfide Occospheres of f Reduces Reduction Surface (Vell Data ain in Re	(B14) (dor (C1) on Living Ro ed Iron (C4 on Tilled S (C7) (D9) emarks) in in	oots (C3)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)		
Primary Ir S S S V S S Ir Ir Ir S Field Ob Surface W Water Tal Saturation	Hydrology Indicandicators (minimum Burface Water (A1) High Water Table (A Baturation (A3) Water Marks (B1) Bediment Deposits (B3) Algal Mat or Crust (B7) Algal Mat or Crust (of one is 2) (B2) 34) erial Image cave Surfa Yes Yes	Wat	er-Stair atic Fau e Aquat rogen S zed Rhiz sence o ent Iron I n Muck S ge or W er (Expl epth: _ epth: _	ned Leave una (B13) ic Plants Sulfide Occospheres of f Reduces Reduction Surface (Vell Data ain in Re	(B14) (dor (C1) on Living Ro ed Iron (C4 on Tilled S (C7) (D9) emarks) in in	oots (C3) 4) ioil (C6) X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)		
Primary Ir S S S S S S Field Ob Surface W Water Tal Saturatior (includes	Hydrology Indicandicators (minimum Burface Water (A1) High Water Table (A Baturation (A3) Water Marks (B1) Bediment Deposits (B3) Algal Mat or Crust (If on Deposits (B5) nundation Visible on A Brarse Vegetated Conservations: Vater Present?	of one is 2) B2) 34) erial Image cave Surfa Yes Yes Yes Yes	Wat	er-Stair atic Fau e Aquat rogen S zed Rhiz sence o ent Iron I n Muck S ge or W er (Expl epth: _ epth: _ epth: _	ned Leave una (B13 ic Plants Sulfide Oc cospheres of f Reduce Reduction Surface (Vell Data ain in Re	(B14) (dor (C1) on Living Ro ed Iron (C4 on Tilled S (C7) (D9) emarks) in in in we	pots (C3) 4) Soil (C6) X X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)		
Primary Ir S S S S S S Field Ob Surface W Water Tal Saturatior (includes	Hydrology Indicandicators (minimum Surface Water (A1) digh Water Table (A Saturation (A3) Vater Marks (B1) Sediment Deposits (B3) digal Mat or Crust (B3) and Matter Vegetated Conservations: Vater Present? In Present? In Present? In Present? In Present? In Present? In Present?	of one is 2) B2) 34) erial Image cave Surfa Yes Yes Yes Yes	Wat	er-Stair atic Fau e Aquat rogen S zed Rhiz sence o ent Iron I n Muck S ge or W er (Expl epth: _ epth: _ epth: _	ned Leave una (B13 ic Plants Sulfide Oc cospheres of f Reduce Reduction Surface (Vell Data ain in Re	(B14) (dor (C1) on Living Ro ed Iron (C4 on Tilled S (C7) (D9) emarks) in in in we	pots (C3) 4) Soil (C6) X X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)		
Primary Ir S S S S S S S S S S S S S S S S S S S	Hydrology Indicandicators (minimum Surface Water (A1) digh Water Table (A Saturation (A3) Vater Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Algarse Vegetated Conservations: Vater Present? The Pr	of one is 2) B2) B4) erial Image cave Surfa Yes Yes Yes eam gauge	Wat	er-Stair atic Fau e Aquat rogen S zed Rhiz sence o ent Iron I n Muck i ge or W er (Expl epth: _ epth: _ epth: _ I, aerial	ned Leave una (B13) ic Plants Sulfide Occospheres of f Reduce Reduction Surface (Vell Data ain in Re	(B14) (dor (C1) on Living Ro ed Iron (C4 on Tilled S (C7) (D9) emarks) in in in previous	oots (C3) 4) 4) ioil (C6) X X etland Hydrolo	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)		
Primary Ir S S S S S S Field Ob Surface W Water Tal Saturatior (includes	Hydrology Indicandicators (minimum Surface Water (A1) digh Water Table (A Saturation (A3) Vater Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Algarse Vegetated Conservations: Vater Present? The Pr	of one is 2) B2) 34) erial Image cave Surfa Yes Yes Yes eam gauge	Wat	er-Stair atic Fau e Aquat rogen S zed Rhiz sence o ent Iron I n Muck i ge or W er (Expl epth: _ epth: _ epth: _ I, aerial	ned Leave una (B13) ic Plants Sulfide Occospheres of f Reduce Reduction Surface (Vell Data ain in Re	(B14) (dor (C1) on Living Ro ed Iron (C4 on Tilled S (C7) (D9) emarks) in in in previous	oots (C3) 4) 4) ioil (C6) X X etland Hydrolo	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)		
Primary Ir S S S S S S S S S S S S S S S S S S S	Hydrology Indicandicators (minimum Surface Water (A1) digh Water Table (A Saturation (A3) Vater Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Algarse Vegetated Conservations: Vater Present? The Pr	of one is 2) B2) 34) erial Image cave Surfa Yes Yes Yes eam gauge	Wat	er-Stair atic Fau e Aquat rogen S zed Rhiz sence o ent Iron I n Muck i ge or W er (Expl epth: _ epth: _ epth: _ I, aerial	ned Leave una (B13) ic Plants Sulfide Occospheres of f Reduce Reduction Surface (Vell Data ain in Re	(B14) (dor (C1) on Living Ro ed Iron (C4 on Tilled S (C7) (D9) emarks) in in in previous	oots (C3) 4) 4) ioil (C6) X X etland Hydrolo	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)		

Project/Site:	Des Moines Area Transloading	g Facility	City/County:	Des Moin	es, Polk Sampling Date: 7/23/19			
Applicant/Owner:	Des Moines Industrial			State:	IA Sampling Point: DP-7			
Investigator(s):	A. Corcoran/K. Jo	hnson	Section, Towr	nship Range	Sec. 2, Twp. 78N, R 24W			
Landform (hillslope,	terrace, etc.): Grassland		Local Relief (concave, coi	nvex, none): None			
Slope (%):	Lat: 41°35'10.44"		Long: 93°35'49.56" Datum: Upland					
Soil Map Unit Name	e: Urban Land			NW	/I Classification: NA			
Are climatic/hydrologic	conditions on the site typical for t	his time of yea	ar? Yes	<u> </u>	No (If no, explain in Remarks)			
Are vegetation N	soil N or hydrology N	significant	ly disturbed?	Are "Norma	al Circumstances" present? Y X N			
Are vegetation N	soil N or hydrology N	significant	ly problematic	? (if neede	ed, explain any answers in Remarks)			
		showing sa	mpling poin	t locations,	transects, important features, etc.			
Hydrophytic Vegeta		Is the Sampled Area Yes No X						
Hydric Soil Present' Wetland Hydrology		No X		a Wetland?				
		•	—					
Remarks: Data po	oint was taken in a better drain	ed area sout	hwest of WL-	3.				
VEGETATION - I	Use scientific names of plant		15	Legator				
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
2					Number of Dominant Species that are OBL, FACW, or FAC (A):			
3					Total Number of Dominant Species			
4					Across All Strata (B):			
5					Percent of Dominant Species That			
	20% Total Cover		= Total Cov	/er	are OBL, FACW, or FAC (A/B):			
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plo	ot size: 15' rad	dius)		Prevalence Index Worksheet:			
1					Total % Cover of: Multiply by:			
2					OBL species X 1			
3					FACW species X 2			
5					FAC species X 3 FACU species X 4			
<u> </u>	20% Total Cover		= Total Cov	/or	UPL species X 5			
			- 10tal C0	/ CI	Totals (A) (B)			
Herb Stratum non-wo	oody or woody < 1 m tall (Plo	ot size: 5' radi	us)		Prevalence Index = B/A =			
1 Solidago canader	nsis (Canada Goldenrod)	25	Y	FACU	Hydrophytic Vegetation Indicators:			
	Queen Anne's Lace)	15	Υ	FACU	1-Rapid Test for Hydrophytic Veg			
	is (Yellow Sweet Clover)	15	Υ	FACU	2-Dominance Test is > 50%			
4 Unidentified Gras		10	N	Unknown	3-Prevalence Index is ≤3.0¹			
	Buckhorn Plantain)	10 5	N N	FAC FACW	4-Morphological Adaptations (Provide supporting data in			
	nse (Ground Cherry)	5	N N	FACU	Remarks)			
9	ilide (Greatia Grierry)		.,	17100	Problematic Hydrophytic			
10					Vegetation ¹ (Explain)			
11					¹ Indicators of hydric soil and wetland			
12					hydrology must be present, unless			
50% Total Cover	42.5 20% Total Cover 17	85	= Total Cov	/er	disturbed or problematic.			
Woody Vine Stratum	> 1 m tall (Plot size:	30' radius)						
1					Hydrophytic			
2					Vegetation Yes No X			
1					Present?			
	20% Total Cover		= Total Cov	/er				
Remarks: Wetland	d vegetation was not dominant.							

Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.)										
Depth	Matrix		жерин несис		x Featu					
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹		Texture	Remarks		
0-18	10YR 3/2	70	Color (Molet)	70	1,750	200	Sandy	Trace gravel and coal		
							Clay			
¹Type: C=	Concentration, D=De	epletion,	RM=Reduced Matrix	x, CS=C	overed	or Coated S	Sand Grains.	2 Location: PL=Pore Lining, M=Matrix		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.2 Location: PL=Pore Lining, M=MatrixHydric Soil Indicators:Indicator for Problematic Hydric Soils³:Histosol (A1)Sandy Gleyed Matrix (S4)Coast Prairie Redox (A16)Histic Epipedon (A2)Sandy Redox (S5)Iron-Manganese Masses (F12)Black Histic (A3)Stripped Matrix (S6)Other (Explain in Remarks)Hydrogen Sulfide (A4)Loamy Mucky Mineral (F1)Stratified Layers (A5)Loamy Gleyed Matrix (F2)2 cm Muck (A10)Depleted Matrix (F3)Depleted Below Dark Surface (A11)Redox Dark Surface (F6)Thick Dark Surface (A12)Depleted Dark Surface (F7)Sandy Mucky Mineral (S1)Redox Depressions (F8)wetland hydrology must be present, unless disturbed or problematic.										
Restricti	ve Layer (if obse	`	,					·		
Type: Depth (ind	ches):			_		Hydric So	oil Present?	Yes No <u>X</u>		
Remarks:	Hydric indicator	s were	not observed.							
HYDRO	LOGY									
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water-Stained Leaves (B9) Saturation (A3) True Aquatic Plants (B14) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery(B7) Sparse Vegetated Concave Surface(B8) Field Observations: Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth: in Water Table Present? Yes No X Depth: in Dry-Season Water (A1) Sturted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)										
(includes Describe	Saturation Present? Yes No X Depth: In Wetland Hydrology Present Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:	Wetland hydrol	ogy was	s not observed.							

Project/Site:	Des Moines Area Transloading	Facility	City/County:	Des Moin	nes, Polk Sampling Date: 7/23/19		
Applicant/Owner:	Des Moines Industrial			State:	IA Sampling Point: DP-8		
Investigator(s):	A. Corcoran/K. Jol	hnson	Section, Tow	_ nship Range	e: Sec. 2, Twp. 78N, R 24W		
Landform (hillslope,	terrace, etc.): Grassland		Local Relief (concave, co	nvex, none): None		
Slope (%):	Lat: 41°35'10.44"		Long: 93°3	35'49.56''	Datum: Upland		
Soil Map Unit Name	e: Urban Land	_		NV	VI Classification: Not identified		
Are climatic/hydrologic	conditions on the site typical for the	his time of yea	ar? Yes	1 X	No (If no, explain in Remarks)		
Are vegetation N	soil N or hydrology N	significant	ly disturbed?	Are "Norma	al Circumstances" present? Y X N		
Are vegetation N	soil N or hydrology N	significant	ly problemation	? (if need	ed, explain any answers in Remarks)		
SUMMARY OF F	INDINGS – Attach site map	showing sa	mpling poin	t locations,	transects, important features, etc.		
Hydrophytic Vegeta		Commissi A.					
Hydric Soil Present		No X		Sampled Al			
Wetland Hydrology	·	No X	_				
Remarks: Data po	oint was taken in a better draind	ed area sout	h of the easte	ern portion o	·f WL-3.		
VEGETATION -	Use scientific names of plant			T			
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:		
1			-		Number of Dominant Species that		
3			+		are OBL, FACW, or FAC (A): Total Number of Dominant Species		
4					Across All Strata (B):		
5					Percent of Dominant Species That		
	20% Total Cover		= Total Co	ver	are OBL, FACW, or FAC (A/B):		
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plo	t size: 15' ra	dius)		Prevalence Index Worksheet:		
1					Total % Cover of: Multiply by:		
2					OBL species X 1		
3					FACW species X 2		
4					FAC species X 3		
5	200/ Tatal Cause				FACU species X 4		
	20% Total Cover		= Total Co	ver	UPL species X 5		
Herb Stratum non-wo	oody or woody < 1 m tall (Plo	t size: 5' radi	us)		Totals (A) (B)		
1 Schedonous arur	ndiancea (Tall Tescue)	20	Y	FACU	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:		
	icea (Reed Canary Grass)	20	Y	FACW	1-Rapid Test for Hydrophytic Veg		
	sifolia (Annual Ragweed)	15	Y	FACU	2-Dominance Test is > 50%		
4 Bromus inermis (10	N	FACU	3-Prevalence Index is ≤3.0¹		
	nsis (Canada Goldenrod)	10	N	FACU	4-Morphological Adaptations		
	(Common Milkweed)	10	N	FACU	(Provide supporting data in		
	adicans (Poison Ivy)	5	N	FAC	Remarks)		
9 Cichorium intybus	s (Chickory)	5	N	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)		
11					Vegetation (Explain) Indicators of hydric soil and wetland		
12					hydrology must be present, unless		
50% Total Cover	47.5 20% Total Cover 19	95	= Total Cov	ver	disturbed or problematic.		
Woody Vine Stratum	> 1 m tall (Plot size: 3						
1					Hydrophytic		
2					Vegetation Yes No X		
1					Present?		
	20% Total Cover		= Total Co	ver			
Remarks: Wetland	d vegetation was not dominant.						

SOIL DP-8 Sampling Point: Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.) Depth Matrix Redox Features Remarks (inches) Color (moist) % Color (Moist) Type¹ Loc² Texture 0-18 10YR 3/2 100 Sandy clay Fill-trace gravel, brick, coal ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 2 Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicator for Problematic Hydric Soils³: Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) Sandy Redox (S5) Histic Epipedon (A2) Iron-Manganese Masses (F12) Black Histic (A3) Stripped Matrix (S6) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) ³ Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be present, unless 5 cm Mucky Peat or Peat (S3) disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): **Hydric Soil Present?** Hydric indicators were not observed. Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of 2 required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Drainage Patterns (B10) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Hydrogen Sulfide Odor (C1) Water Marks (B1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction on Tilled Soil (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery(B7) Gauge or Well Data (D9) Sparse Vegetated Concave Surface(B8) Other (Explain in Remarks) Field Observations: _ Depth: Surface Water Present? Yes Nο Yes ____ Water Table Present? X Depth: No in X Depth: Saturation Present? No in **Wetland Hydrology Present** Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

(includes capillary fringe)

Remarks:

Wetland hydrology was not observed.

Project/Site:	Des Moines Area Transloading F	acility (City/County:	Des Moine	es, Polk Samp	oling Date: 7/2	23/19			
Applicant/Owner:	Des Moines Industrial	,		State:	IA Samp	oling Point: DF	P-9			
Investigator(s):	A. Corcoran/K. John	son S	Section, Town	_ iship Range:	Sec. 2, Twp. 7	8N, R 24W				
Landform (hillslope,	terrace, etc.): Stormwater bas	sin L	ocal Relief (c	concave, cor	nvex, none): Co	ncave				
Slope (%):	Lat: 41°35'10.44"	L	ong: 93°3	5'49.56"	Datum: W	'L-4				
Soil Map Unit Name	e: Urban Land			NV	VI Classification:	Not identified				
Are climatic/hydrologic	conditions on the site typical for this	time of year	? Yes		No (If	no, explain in Re	emarks)			
Are vegetation N	soil N or hydrology N	significantl	y disturbed?	Are "Norma	al Circumstances" pre	esent? Y >	(N			
Are vegetation N	soil N or hydrology N	significantl	y problematic?	? (if neede	ed, explain any ansv	wers in Remarks)				
SUMMARY OF F	INDINGS – Attach site map sh	owing sam	ıpling point l	ocations, tr	ansects, importa	nt features, etc				
Hydrophytic Vegeta		No	_ le the	Sampled Ar	202					
Hydric Soil Present' Wetland Hydrology		No No		a Wetland?		X No				
Remarks: Wetlan WOUS	· · · · · · · · · · · · · · · · · · ·									
VEGETATION – (Jse scientific names of plants.									
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	Worksheet:				
1 2					Number of Domin are OBL, FACW,		3			
3					Total Number of [s			
4					Across All Strata		3			
5					Percent of Domin		100			
	20% Total Cover		= Total Cov	er	are OBL, FACW,	or FAC (A/B):				
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plot	size: 15' rad	ius)		Prevalence Index	x Worksheet:				
1 Salix exigua (Sar	ndbar Willow)	5	Υ	OBL	Total % Cover		iply by:			
2					OBL species	X 1 _				
3					FACW species FAC species	X2 X3				
5					FACU species	X3 _				
-	20% Total Cover 1	5	= Total Cov	er	UPL species	X 5				
					Totals (A)	(B)				
Herb Stratum non-wo	oody or woody < 1 m tall (Plot	size: 5' radiu	ıs)		Prevalence	Index = B/A =				
1 Typha latifolia (C		35	Y	OBL	Hydrophytic Veg	jetation Indicato	rs:			
2 Schoenoplectus t Bulrush)	abernaemontani (Softstem	25	Υ	OBL	X 1-Rapid T	est for Hydrophy	tic Veg			
	sylvanica (Pinkweed)	10	N	FACW	2-Domina	nce Test is > 50%	6			
4	,				3-Prevale	nce Index is ≤3.0	1			
6						logical Adaptation				
7					Provide s Remarks)	supporting data in	l			
9					<u>-</u>	, tic Hydrophytic V	egetation			
10					1 (Explain)		ogetation			
11					¹ Indicators of hyd					
12					hydrology must be					
50% Total Cover	20% Total Cover14	70	= Total Cov	er	disturbed or probl	ematic.				
Woody Vine Stratum	> 1 m tall (Plot size: 30	' radius)								
1					Hydrophytic					
2					Vegetation	Yes X N	o			
1	200/. Total Cayor		= Total Cov		Present?					
Danisalis M. "	20% Total Cover	er								
Remarks: Wetland	d vegetation was dominant and pas	ses the FA(Neutral test.							

Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.)										
Depth	Matrix				ox Featur					
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-4	10YR 2/1	95	,		71		Muck	Muck with some redox		
4-8							Sand	Fine to medium		
8-18			10YR 5/1	85	D	М	Silty clay	Depletion with redox		
¹Type: C=	Concentration, D=De	epletion,	RM=Reduced Matrix	k, CS=C	covered o	r Coated S	and Grains.	2 Location: PL=Pore Lining, M=Matrix		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Z cm Muck (A10) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sedox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Peat or Peat (S3) Loamy Matrix, CS=Covered or Coated Sand Grains. 2 Location: PL=Pore Lining, M=Matrix 1 Indicator for Problematic Hydric Soils ³ : Indicator for Problematic Hydric Soils ³ : Coast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Other (Explain in Remarks) J Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.										
Restricti Type:	ve Layer (if obse	rved):								
Depth (inc				_		Hydric So	oil Present?	Yes <u>X</u> No		
Remarks:	Soil displayed a	muck s	surface and deplete	d matri:	х.					
HYDRO	LOGY									
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of 2 required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) X High Water Table (A2) X Aquatic Fauna (B13) Drainage Patterns (B10) X Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) X Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction on Tilled Soil (C6) X Geomorphic Position (D2) Iron Deposits (B5) X Thin Muck Surface (C7) X FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery(B7) Gauge or Well Data (D9) Sparse Vegetated Concave Surface(B8) Other (Explain in Remarks)										
Surface V Water Tal Saturatior (includes	Field Observations: Surface Water Present? Yes No X Depth: in Water Table Present? Yes X No Depth: 0 in Saturation Present? Yes X No Depth: 0 in Wetland Hydrology Present Yes X No (includes capillary fringe)									
	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:	Wetland appea	rs to be	receiving hydrology	/ from s	surface w	ater runof	f and City stor	mwater.		

Project/Site:	Des Moines Area Transloading	g Facility	City/County:	Des Moin	es, Polk Sampling Date: 7/23/19		
Applicant/Owner:	Des Moines Industrial			State:	IA Sampling Point: DP-10		
Investigator(s):	A. Corcoran/K. Jo	hnson	Section, Towr	- nship Range	e: Sec. 2, Twp. 78N, R 24W		
Landform (hillslope,	terrace, etc.): Basin Slope		Local Relief (d	concave, co	nvex, none): None		
Slope (%):	Lat: 41°35'10.44"		Long: 93°3	5'49.56"	Datum: upland		
Soil Map Unit Name	e: Urban Land			NV	VI Classification: Not identified		
Are climatic/hydrologic	conditions on the site typical for t	his time of yea	ar? Yes	1 X	No (If no, explain in Remarks)		
Are vegetation N	soil N or hydrology N	significant	ly disturbed?	Are "Norma	al Circumstances" present? Y X N		
Are vegetation N	soil N or hydrology N	significant	ly problematic	? (if need	ed, explain any answers in Remarks)		
		showing sa	mpling poin	t locations,	transects, important features, etc.		
Hydrophytic Vegeta		Sampled A	roa v				
Hydric Soil Present' Wetland Hydrology		No X		a Wetland?			
			<u> </u>				
Remarks: Data po	oint was taken on the basin slo	pe upland fro	om WL-4.				
VEGETATION - I	Use scientific names of plant		T	T	1		
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:		
2					Number of Dominant Species that are OBL, FACW, or FAC (A):		
3					Total Number of Dominant Species		
4					Across All Strata (B):		
5					Percent of Dominant Species That		
	20% Total Cover		= Total Cov	/er	are OBL, FACW, or FAC (A/B):		
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plo	ot size: 15' rad	dius)		Prevalence Index Worksheet:		
1					Total % Cover of: Multiply by:		
2					OBL species X 1		
3					FACW species X 2		
5					FAC species X 3 FACU species X 4		
<u> </u>	20% Total Cover		= Total Cov	/or	UPL species X 5		
			- Total Cov	/CI	Totals (A) (B)		
Herb Stratum non-wo	oody or woody < 1 m tall (Plo	ot size: 5' radi	us)		Prevalence Index = B/A =		
1 Lotus corniculatu	s (Birdsfoot Trefoil)	30	Y	FACU	Hydrophytic Vegetation Indicators:		
	ndinaceus (Tall Fescue)	25	Υ	FACU	1-Rapid Test for Hydrophytic Veg		
3 Bromus inermis (20	Υ	FACU	2-Dominance Test is > 50%		
	nsis (Canada Goldenrod)	10	N	FACU	3-Prevalence Index is ≤3.0 ¹		
7					4-Morphological Adaptations (Provide supporting data in		
8					Remarks)		
9					Problematic Hydrophytic		
10					Vegetation ¹ (Éxplain)		
11					¹ Indicators of hydric soil and wetland		
12					hydrology must be present, unless		
50% Total Cover	20% Total Cover17	85	= Total Cov	/er	disturbed or problematic.		
Woody Vine Stratum	> 1 m tall (Plot size:	30' radius)	<u></u>				
1					Hydrophytic		
2					Vegetation Yes No X		
1			_		Present?		
	20% Total Cover		= Total Cov	/er			
Remarks: Wetland	d vegetation was not dominant.						

		ribe to	the depth neede				cator to cont	irm the absence	of indicators.)
Depth	Matrix				x Feat			ļ	Remarks
(inches)	Color (moist)	%	Color (Moist)	%	Type	1 Loc ²	Texture		
0-4	10YR 3/2						Sandy lean clay		
4-18							Sandy Fill	Trace gravel, bric	k, coal
1= 0			DM D 1 144 1	00.0		0 1 10		01 (1 D) D	1111 14 14 11
		pletion,	RM=Reduced Matri	x, CS=C	overed	or Coated S			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 Location: PL=Pore Lining, M=Matrix Coast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Loamy Mucky Mineral (F1) Stratified Layers (A5) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6)									
Thick Dark Surface (A12) Depleted Dark Surface (F7) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Pepleted Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless									
	cm Mucky Peat or					()		disturbed or proble	
Restricti	ve Layer (if obser	ved):							
Type:				_					
Depth (ind	· · · · · · · · · · · · · · · · · · ·					Hydric So	oil Present?	Yes	NoX
Remarks:	Hydric indicators	s were	not observed.						
HYDRO									
Wetland	Hydrology Indicandicators (minimum	tors:	io roquirod; obook o	ull that a	nnly)		Soci	aandaru Indiaatara (minimum of 2 required)
	Burface Water (A1)	or one	is required, check a Wat	er-Stair	i <u>ppiy)</u> ied Lea	aves (B9)	<u>360</u>	Surface Soil Crac	minimum of 2 required) ks (B6)
	ligh Water Table (A	2)		atic Fau				Drainage Patterns	
	Saturation (A3)	•	True	e Aquati	ic Plan	ts (B14)		Dry-Season Wate	er Table (C2)
	Vater Marks (B1)					Odor (C1)		Crayfish Burrows	
	Sediment Deposits (I	B2)			•	s on Living Ro	` '		on Aerial Imagery (C9)
	rift Deposits (B3) Jgal Mat or Crust (B	(1)				ced Iron (C ² on on Tilled S		Stunted or Stress Geomorphic Posit	
	ron Deposits (B5)	'+)		Muck			Oii (CO)	FAC-Neutral Test	
	nundation Visible on A	erial Ima		ige or W		` '			(=3)
s	parse Vegetated Cond	cave Su	face(B8) Oth	er (Expl	ain in F	Remarks)			
Field Ob	servations:								
Surface V	Vater Present?	Yes	No _X_ D	epth:		in			
	ble Present?	Yes		epth: _		in			
	n Present?	Yes	No <u>X</u> D	epth:		_ in We	tland Hydrolo	ogy Present Yes	s No <u>X</u>
	capillary fringe) Recorded Data (stre	00m ac	ugo monitoring	ll ocrici	nhoto	nrovious :	nanoationa\ :f	available:	
Describe	necolueu Data (Stre	ani ya	uge, monitoring we	ıı, aerial	priotos	s, previous i	nspections), if	avallable.	
Remarks:	Wetland hydrolo	gy was	not observed.						

Project/Site:	Des Moines Area Transloading	Facility	City/County:	Des Moin	es, Polk Sampling Date: 7/23/19			
Applicant/Owner:	Des Moines Industrial		State: IA Sampling Point: DP-11					
			Section, Township Range: Sec. 2, Twp. 78N, R 24W					
Landform (hillslope,	sin	Local Relief (concave, convex, none): Concave						
Slope (%):	Lat: 41°35'10.44"		Long: 93°3	5'49.56"	Datum: WL-5			
Soil Map Unit Name	e: Urban Land			NV	VI Classification: Not identified			
Are climatic/hydrologic	conditions on the site typical for thi	s time of yea	ar? Yes	X	No (If no, explain in Remarks)			
Are vegetation N	soil N or hydrology N	significan	tly disturbed?	Are "Norma	al Circumstances" present? Y X N			
Are vegetation N	soil N or hydrology N	significan	tly problematic	? (if need	ed, explain any answers in Remarks)			
			mpling poin	t locations,	transects, important features, etc.			
Hydrophytic Vegeta		rea v v.						
Hydric Soil Present' Wetland Hydrology		No No		Is the Sampled Area Yes X No No				
	d Area 5 is located in a City stor S. Data point was taken on the				ea 5 does not appear to be associated with			
VEGETATION - I	Use scientific names of plants	i.						
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1					Number of Dominant Species that			
3			_		are OBL, FACW, or FAC (A):			
4					Total Number of Dominant Species Across All Strata (B):			
5					Percent of Dominant Species That			
	20% Total Cover		= Total Cov	/er	are OBL, FACW, or FAC (A/B):			
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plot	size: 15' ra	dius)		Prevalence Index Worksheet:			
1					Total % Cover of: Multiply by:			
2					OBL species X 1			
3					FACW species X 2			
4					FAC species X 3			
5	20% Total Cover		- T-4-1 O-1		FACU species X 4 UPL species X 5			
	20% Total Gover		= Total Cov	/er	Totals (A) (B)			
Herb Stratum non-wo	oody or woody < 1 m tall (Plot	size: 5' rad	ius)		Prevalence Index = B/A =			
1 Phalaris arundina	acea (Reed Canary Grass)	75	Υ	FACW	Hydrophytic Vegetation Indicators:			
2	, , ,				X 1-Rapid Test for Hydrophytic Veg			
3					2-Dominance Test is > 50%			
4			_		3-Prevalence Index is ≤3.0¹			
7			_		4-Morphological Adaptations			
8					(Provide supporting data in Remarks)			
9					Problematic Hydrophytic			
10					Vegetation ¹ (Explain)			
11					¹ Indicators of hydric soil and wetland			
12					hydrology must be present, unless			
50% Total Cover	20% Total Cover15	75	= Total Cov	/er	disturbed or problematic.			
Woody Vine Stratum	> 1 m tall (Plot size: 30)' radius)						
1					Hydrophytic			
2					Vegetation Yes X No			
1					Present?			
	20% Total Cover		= Total Cov					
Remarks: Wetland	d vegetation was dominant and pa	sses the F	AC-Neural test					

Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.)											
Depth Matrix					ox Featur						
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-4	10YR 3/1	90	2.5YR 4/6	10	С	M	Lean clay	Redox			
4-12	1011(3/1	30	10YR 4/1	85	D	M	Lean clay	Depletion with redox			
				65			,				
12-18			10YR 4/1	75	D	М	Lean clay	Depletion with redox			
¹ Type: C=	L Concentration, D=D	epletion.	RM=Reduced Matrix	x. CS=C	Covered o	r Coated S	L Sand Grains.	2 Location: PL=Pore Lining, M=Matrix			
	oil Indicators:	оргоногт,	Tan Houdood Maan	и, оо с	JO 1 0 1 0 1	. Oodioa c		Indicator for Problematic Hydric Soils ³ :			
	listosol (A1)		San	dv Glev	ed Matri	x (S4)		Coast Prairie Redox (A16)			
	listic Epipedon (A2	1			ox (S5)	X (O4)	_	Iron-Manganese Masses (F12)			
	Black Histic (A3)	,			atrix (S6)		-	Other (Explain in Remarks)			
		4)			cky Miner		_	Other (Explain in Remarks)			
	lydrogen Sulfide (A										
	Stratified Layers (A5	o)			yed Matri						
	cm Muck (A10)		X Dep								
	Depleted Below Dar										
	hick Dark Surface	. ,			ark Surfa			³ Indicators of hydrophytic vegetation and			
	Sandy Mucky Miner			ox Dep	ressions	(F8)		wetland hydrology must be present, unless			
5	cm Mucky Peat or	Peat (S	3)					disturbed or problematic.			
Restricti	ve Layer (if obse	rved):									
Type:		,									
	Depth (inches): Hydric Soil Present? Yes X No										
Remarks: Soil displayed redox dark surface and depleted matrix.											
HYDROLOGY											
	Hydrology Indica	ators:									
			is required; check a	all that a	(vlaar		Sec	condary Indicators (minimum of 2 required)			
	Surface Water (A1)	1 01 0110				es (B9)	<u>55.</u>	Surface Soil Cracks (B6)			
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) True Aquatic Plants (B14) Dry Sesson Water Table											
Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Dry-Season Water Table (C2)											
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)											
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)											
	Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction on Tilled Soil (C6) X Geomorphic Position (D2)										
	Algal Mat or Crust (I	84)						Geomorphic Position (D2)			
Iron Deposits (B5) Thin Muck Surface (C7) X FAC-Neutral Test (D5)											
Inundation Visible on Aerial Imagery(B7) Gauge or Well Data (D9)											
Sparse Vegetated Concave Surface(B8) Other (Explain in Remarks)											
Field Observations:											
	Vater Present?	Yes	No X D	epth:		in					
Water Table Present? Yes No X Depth: in											
Saturation Present? Yes No X Depth: in Wetland Hydrology Present Yes X No											
(includes capillary fringe)											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Remarks: Wetland appears to be receiving hydrology from surface water runoff, City stormwater, and the railroad ditch.											
Remarks: Wetland appears to be receiving hydrology from surface water runoff, City stormwater, and the railroad ditch.											

Project/Site:	Des Moines Area Transloading	Facility (City/County:	Des Moin	es, Polk Sampling Date: 7/23/19			
Applicant/Owner:	Des Moines Industrial		State: IA Sampling Point: DP-12					
Investigator(s): A. Corcoran/K. Johnson			Section, Township Range: Sec. 2, Twp. 78N, R 24W					
Landform (hillslope,	terrace, etc.): Slope	l	Local Relief (concave, convex, none): Upland					
Slope (%):	Lat: 41°35'10.44"	I	_ong: 93°3	5'49.56"	Datum: Upland			
Soil Map Unit Name	e: Urban land		NWI Classification: Not identified					
Are climatic/hydrologic	conditions on the site typical for the	his time of yea	r? Yes	1 X	No (If no, explain in Remarks)			
Are vegetation N	soil N or hydrology N	significant	ly disturbed?	Are "Norma	al Circumstances" present? Y X N			
Are vegetation N	soil N or hydrology N	significant	ly problematic	? (if need	ed, explain any answers in Remarks)			
			mpling poin	t locations,	transects, important features, etc.			
Hydrophytic Vegeta		No X						
Hydric Soil Present' Wetland Hydrology		No X	10.1					
		-	_					
Remarks: Data po	oint was taken on the basin slop	pe upland to	the northwes	st of DP-11 i	n WL-5.			
VEGETATION - I	Use scientific names of plant		T	T	1			
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
2					Number of Dominant Species that are OBL, FACW, or FAC (A):			
3					Total Number of Dominant Species			
4					Across All Strata (B):			
5					Percent of Dominant Species That			
	20% Total Cover	_	= Total Cov	/er	are OBL, FACW, or FAC (A/B):			
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plo	t size: 15' rad	dius)		Prevalence Index Worksheet:			
1					Total % Cover of: Multiply by:			
2					OBL species X 1			
3					FACW species X 2			
5					FAC species X 3 FACU species X 4			
<u> </u>	20% Total Cover		= Total Cov	/or	UPL species X 5			
		_	- Total Cov		Totals (A) (B)			
Herb Stratum non-wo	oody or woody < 1 m tall (Plo	t size: 5' radi	us)		Prevalence Index = B/A =			
1 Bromus inermis (Smooth Brome)	10	Y	FACU	Hydrophytic Vegetation Indicators:			
2 Solidago canade	nsis (Canada Goldenrod)	10	Y	FACU	1-Rapid Test for Hydrophytic Veg			
	s (Birdsfoot Trefoil)	10	Y	FACU	2-Dominance Test is > 50%			
4 Cirsium arvense	•	5	N	FACU	3-Prevalence Index is ≤3.0¹			
	ı (Common Milkweed) siifolia (Annual Ragweed)	5 5	N N	FACU FACU	4-Morphological Adaptations (Provide supporting data in			
8	siliolia (Affiliali Ragweed)	3	IN	FACU	Remarks)			
9					Problematic Hydrophytic			
10					Vegetation ¹ (Explain)			
11					¹ Indicators of hydric soil and wetland			
12					hydrology must be present, unless			
50% Total Cover	20% Total Cover 9	45	= Total Cov	/er	disturbed or problematic.			
Woody Vine Stratum	> 1 m tall (Plot size: 3	30' radius)						
1	•				Hydrophytic			
2					Vegetation Yes No X			
1					Present?			
	20% Total Cover	<u></u>	= Total Cov	/er				
Remarks: Wetland	d vegetation was not dominant.							

Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.)								
Depth	h Matrix		Redox Features					Damarka
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/1	100			. 7 -		Lean Clay	Trace sand, gravel, - Fill
6-8	10YR 2/1	100					Lean Clay	Trace sand, gravel, - Fill
8-18	10YR 5/6/ 2.5Y 5/1	50/5 0					Lean Clay	Trace sand, gravel, - Fill
1			DM D I IM I	22.0				
		epletion,	RM=Reduced Matrix	k, CS=Co	vered o	r Coated S		2 Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Histosol (A1) Sandy Redox (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Indicator for Problematic Hydric Soils ³ : Coast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Other (Explain in Remarks) Indicator for Problematic Hydric Soils ³ : Poast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Indicator for Problematic Hydric Soils ³ : Poast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Indicator for Problematic Hydric Soils ³ : Poast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Indicator for Problematic Hydric Soils ³ : Poast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Indicator for Problematic Hydric Soils ³ : Poast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Indicator for Problematic Hydric Soils ³ : Poast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Indicator for Problematic Hydric Soils Poast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Indicator for Problematic Hydric Soils Iron-Manganese Masses (F12) Iron-Manganese Masses (F12) Other (Explain in Remarks) Indicator for Problematic Hydric Soils Iron-Manganese Masses (F12) Other (Explain in Remarks) Indicator for Problematic Hydric Soils Iron-Manganese Masses (F12) Iron-Manganese								
	andy Mucky Minera cm Mucky Peat or			ox Depre	essions	(F6)		wetland hydrology must be present, unless disturbed or problematic.
		•						distarbed of problematic.
Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Hydric Soil Present? Hydric Soil Present? Hydric indicators were not observed.								
HYDROLOGY								
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of 2 required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction on Tilled Soil (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery(B7) Gauge or Well Data (D9) Sparse Vegetated Concave Surface(B8) Other (Explain in Remarks)								
Surface Water Present? Yes No X Depth: in Water Table Present? Yes No X Depth: in Saturation Present? Yes No X Depth: in (includes capillary fringe)								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks: Wetland hydrology was not observed.								

Project/Site:	Des Moines Area Transloading	Facility (City/County:	Des Moin	es, Polk Sampling Date: 7/23/19				
Applicant/Owner:		State: IA Sampling Point: DP-13							
Investigator(s):	nson S	Section, Township Range: Sec. 2, Twp. 78N, R 24W							
Landform (hillslope,	terrace, etc.): Stormwater ba	asin L	Local Relief (concave, convex, none): Concave						
Slope (%):	Lat: 41°35'10.44"	l	Long: 93°35'49.56" Datum: WL-5						
Soil Map Unit Name	e: Urban Land		NWI Classification: Not identified						
Are climatic/hydrologic	conditions on the site typical for thi	s time of yea	-						
Are vegetation N	soil N or hydrology N	significant	ly disturbed?	Are "Norma	al Circumstances" present? Y X N				
Are vegetation N	soil N or hydrology N	significant	ly problematic	? (if need	ed, explain any answers in Remarks)				
			mpling poin	t locations,	transects, important features, etc.				
Hydrophytic Vegeta		Sampled A	rea v N.						
Hydric Soil Present' Wetland Hydrology		No	Is the Sampled Area Yes X No within a Wetland?						
			_						
Remarks: Data po	oint was taken on the southeast	portion of ti	ne wetland.						
VEGETATION - I	Use scientific names of plants		T	T	1				
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:				
2					Number of Dominant Species that are OBL, FACW, or FAC (A):				
3					Total Number of Dominant Species				
4					Across All Strata (B):				
5					Percent of Dominant Species That 66				
	20% Total Cover		= Total Cov	/er	are OBL, FACW, or FAC (A/B):				
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plot	size: 15' rad	lius)		Prevalence Index Worksheet:				
1					Total % Cover of: Multiply by:				
2					OBL species X 1				
3					FACW species X 2				
5					FAC species X 3				
3	20% Total Cover		= Total Cov	/or	FACU species X 4 UPL species X 5				
		1	- Total Cov	/ei	Totals (A) (B)				
Herb Stratum non-wo	oody or woody < 1 m tall (Plot	size: 5' radi	us)		Prevalence Index = B/A =				
1 Phalaris arundina	acea (Reed Canary Grass)	25	Υ	FACW	Hydrophytic Vegetation Indicators:				
	ylvanica (Pinkweed)	10	Y	FACW	1-Rapid Test for Hydrophytic Veg				
	s (Birdsfoot Trefoil)	10	Y	FACU	X 2-Dominance Test is > 50%				
	ppiper (Milk Water Pepper)	5	N	FACW	3-Prevalence Index is ≤3.0¹				
7					4-Morphological Adaptations (Provide supporting data in				
8					Remarks)				
9					Problematic Hydrophytic				
10					Vegetation ¹ (Explain)				
11					¹ Indicators of hydric soil and wetland				
12					hydrology must be present, unless				
50% Total Cover	20% Total Cover10	50	= Total Cov	/er	disturbed or problematic.				
Woody Vine Stratum	> 1 m tall (Plot size: 30	O' radius)							
1					Hydrophytic				
2					Vegetation Yes X No				
1					Present?				
	20% Total Cover		= Total Cov						
Remarks: Wetland vegetation was dominant and passes the FAC-Neutral test.									

Profile D	Profile Description: (Describe to the depth needed to document the indicator to confirm the absence of indicators.)									
Depth	Matrix				x Featur			•		
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-3	General (mener)		5Y 5/1	95	D	M	Sandy lean clay	Depletion with redox		
3-5	10YR 2/1	95	2.5YR 4/6	5	С	М	Sandy lean clay	Redox		
5-8	10YR 5/3	100		Clayey Sand						
8-18	Sandy lean									
Gidy										
¹Type: C=	Concentration D=De	enletion	RM=Reduced Matrix	/ CS=C	overed o	or Coated S	and Grains	2 Location: PL=Pore Lining, M=Matrix		
H	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 2 Location: PL=Pore Lining, M=Matrix									
Restricti Type:	ve Layer (if obse	rved):								
Depth (inc				_	ı	Hydric Sc	oil Present?	Yes <u>X</u> No		
Remarks:	Soil displayed o	lepletior	n and redox dark su	rface.						
HYDRO	LOGY									
Primary Ir	Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of 2 required) Surface Water (A1) X Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction on Tilled Soil (C6) X Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) X FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery(B7) Gauge or Well Data (D9) Sparse Vegetated Concave Surface(B8) Other (Explain in Remarks)									
Surface V Water Tal Saturation	servations: l/ater Present? ole Present? n Present? capillary fringe)	Yes Yes Yes	No X D	epth: _ epth: _ epth: _		in in in We	tland Hydrolo	gy Present Yes X No		
Describe	Recorded Data (str	eam ga	uge, monitoring wel	l, aerial	photos,	previous i	nspections), if	available:		
Remarks:	Remarks: Wetland appears to be receiving hydrology from surface water runoff, City stormwater, and the railroad ditch.									

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site:	Des Moines Area Transloading	Facility (City/County:	Des Moin	nes, Polk Sampling Date: 7/23/19			
Applicant/Owner:	Des Moines Industrial			State:	IA Sampling Point: DP-14			
Investigator(s):	A. Corcoran/K. Joh	inson (Section, Township Range: Sec. 2, Twp. 78N, R 24W					
Landform (hillslope,	terrace, etc.): Lowland area	I	_ocal Relief (concave, co	nvex, none): None			
Slope (%):	Lat: 41°35'10.44"		Long: 93°35'49.56" Datum: Upland					
Soil Map Unit Name	e: Nodaway silt loam		'	NV	VI Classification: Not identified			
Are climatic/hydrologic	conditions on the site typical for th	is time of yea	r? Yes	1 X	No (If no, explain in Remarks)			
Are vegetation N	soil N or hydrology N	significant	ly disturbed?	Are "Norma	al Circumstances" present? Y X N			
Are vegetation N	soil N or hydrology N	significant	ly problematic	? (if need	ed, explain any answers in Remarks)			
			mpling poin	t locations,	transects, important features, etc.			
Hydrophytic Vegeta		No X	_ ls the	Sampled A	rea v N. v			
Hydric Soil Present' Wetland Hydrology		No X		a Wetland?				
			_					
Remarks: Data po	oint was taken in a basin like are	ea on the w	estern portior	of the site.				
VEGETATION - I	Use scientific names of plants	1	15	Liebertee	T			
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
2					Number of Dominant Species that are OBL, FACW, or FAC (A):			
3					Total Number of Dominant Species			
4					Across All Strata (B):			
5					Percent of Dominant Species That			
	20% Total Cover		= Total Cov	/er	are OBL, FACW, or FAC (A/B):			
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plot	size: 15' rad	dius)		Prevalence Index Worksheet:			
1					Total % Cover of: Multiply by:			
2					OBL species X 1			
3					FACW species X 2			
5					FACUencies X 3			
3	20% Total Cover		= Total Cov	/or	FACU species X 4 UPL species X 5			
			- 10tai C0	/ei	Totals (A) (B)			
Herb Stratum non-wo	oody or woody < 1 m tall (Plot	size: 5' radi	us)		Prevalence Index = B/A =			
1 Trifolium pretense	e (Red Clover)	20	Υ	FACU	Hydrophytic Vegetation Indicators:			
	te (Orchard Grass)	20	Y	FACU	1-Rapid Test for Hydrophytic Veg			
3 Bromus inermis (15	Y	FACU	2-Dominance Test is > 50%			
4 Cichorium intybus	• • • • • • • • • • • • • • • • • • • •	15	Y	FACU	3-Prevalence Index is ≤3.0¹			
<u> </u>	Blackseed Plantain)	15	Y	FAC	4-Morphological Adaptations			
7 Taraxacum officir 8	hale (Dandelion)	5	N	FACU	(Provide supporting data in Remarks)			
9					Problematic Hydrophytic			
10					Vegetation ¹ (Explain)			
11					¹ Indicators of hydric soil and wetland			
12					hydrology must be present, unless			
50% Total Cover	45 20% Total Cover 18	90	= Total Cov	/er	disturbed or problematic.			
Woody Vine Stratum	> 1 m tall (Plot size: 3	0' radius)						
1					Hydrophytic			
2					Vegetation Yes No X			
1	000/ 〒 : : :	1			Present?			
	20% Total Cover		= Total Cov	/er				
Remarks: Wetland	d vegetation was not dominant.							

Profile Description: (Describe to		the depth need	ed to do	cumen	t the indi	cator to conf	irm the absence of indicators.)	
Depth	Matrix			Redo	x Featur	res		Remarks
(inches)	Color (moist) %		Color (Moist)	%	Type ¹	Loc ²	Texture	Nemarks
0-18			10YR 4/1	95	D	М	Sandy lean clay	Depletion with redox
							ĺ	
	Concentration, D=De	epletion,	RM=Reduced Matr	ix, CS=C	overed o	r Coated S		2 Location: PL=Pore Lining, M=Matrix
	oil Indicators:		_					Indicator for Problematic Hydric Soils ³ :
	listosol (A1)				ed Matri	ix (S4)	_	Coast Prairie Redox (A16)
	listic Epipedon (A2))		ndy Redo			_	Iron-Manganese Masses (F12)
	Black Histic (A3)				atrix (S6)		_	Other (Explain in Remarks)
	lydrogen Sulfide (A				ky Mine			
	Stratified Layers (A5	5)			ed Matr			
	cm Muck (A10)				atrix (F3			
	epleted Below Dar				Surface			
	hick Dark Surface					ace (F7)		Indicators of hydrophytic vegetation and
	Sandy Mucky Miner			ох Бері	ressions	(F8)		wetland hydrology must be present, unless
	cm Mucky Peat or	•	53)					disturbed or problematic.
	ve Layer (if obse	rved):						
Type:								
Depth (ind	-					Hydric So	oil Present?	Yes <u>X</u> No
Remarks:	Soil displayed [Depleted	d Matrix.					
HYDRO	LOGY							
Wetland	Hydrology Indica	ators:						
Primary Ir	ndicators (minimum	of one	is required: check	all that a	(vlaa		Sec	condary Indicators (minimum of 2 required)
S	Surface Water (A1)		Wa	ter-Stain	ned Leav	es (B9)		Surface Soil Cracks (B6)
	ligh Water Table (A	2)			ına (B13			Drainage Patterns (B10)
	Saturation (A3)	,			ic Plants			Dry-Season Water Table (C2)
	Vater Marks (B1)					dor (Ć1)		Crayfish Burrows (C8)
s	sediment Deposits (B2)	Oxio	dized Rhiz	ospheres	on Living Ro	oots (C3)	Saturation Visible on Aerial Imagery (C9)
	rift Deposits (B3)		Pre	sence of	f Reduce	ed Iron (C	4)	Stunted or Stressed Plants (D1)
A	Igal Mat or Crust (E	34)	Rec	ent Iron F	Reduction	on Tilled S	Soil (C6)	Geomorphic Position (D2)
Ir	on Deposits (B5)		Thi	n Muck S	Surface ((C7)		FAC-Neutral Test (D5)
Ir	nundation Visible on A	erial Ima	agery(B7) Ga	uge or W	/ell Data	(D9)		
S	parse Vegetated Con	cave Su	rface(B8) Oth	er (Expl	ain in Re	emarks)		
Field Ob	servations:							
		Yes	No X [Depth:		in		
Surface V				Depth:		in		
Surface W Water Tal	ole Present?	Yes	INO A L					
Water Tal	ole Present?	_				in We	tland Hydrolo	ogy Present Yes No X
Water Tal Saturation	ole Present? n Present?	Yes Yes		Depth:		in We	tland Hydrolo	egy Present Yes No <u>X</u>
Water Tal Saturatior (includes	ole Present? n Present? capillary fringe)	Yes	No X [Depth:	photos.			
Water Tal Saturatior (includes	ole Present? n Present?	Yes	No X [Depth:	photos,			
Water Tal Saturatior (includes Describe	ole Present? n Present? capillary fringe) Recorded Data (str	Yes eam ga	No X [Depth: _		previous i	inspections), if	available:
Water Tal Saturatior (includes	ole Present? n Present? capillary fringe) Recorded Data (str Wetland hydrol	Yes eam ga	No X [Depth: _		previous i	inspections), if	
Water Tal Saturatior (includes Describe	ole Present? n Present? capillary fringe) Recorded Data (str	Yes eam ga	No X [Depth: _		previous i	inspections), if	available:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site:	Des Moines Area Transloading	Facility	City/County:	Des Moin	es, Polk	Sampling Date:	7/23/	19
Applicant/Owner:	Des Moines Industrial			State:	IA S	Sampling Point:	DP-1	5
Investigator(s):	A. Corcoran/K. Joh	Section, Towr	_ nship Range	e: Sec. 2, Tv	vp. 78N, R 24W	/		
Landform (hillslope,	terrace, etc.): Woodland		Local Relief (d	concave, co	nvex, none):	None		
Slope (%):	Lat: 41°35'10.44"	5'49.56"	Datum:	Upland				
Soil Map Unit Name	e: Urban land	NV	VI Classification	n: Not ident	ified			
Are climatic/hydrologic	conditions on the site typical for thi	s time of yea	ar? Yes		No	(If no, explain	in Rem	narks)
Are vegetation N	soil N or hydrology N	significant	tly disturbed?	Are "Norma	al Circumstance	s" present?	ΥX	N
Are vegetation N	soil N or hydrology N	significant	tly problematic	? (if need	ed, explain any	answers in Rer	narks)	
SUMMARY OF F	INDINGS – Attach site map s	howing sa	mpling poin	t locations,	transects, in	portant featur	es, etc.	
Hydrophytic Vegeta		No X	_ ls the	Sampled Aı	roa v			
Hydric Soil Present' Wetland Hydrology		No X No X		a Wetland?			No	Х
	pint was taken in a wooded area		-			f the cite		
Remarks: Data po	onit was taken in a wooded area	just south	or the railload	i on the wes	stern portion o	i trie site.		
VEGETATION - I	Use scientific names of plants			I				
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance	Test Workshee	t:	
1 Morus rubra (Red	d Mulberry)	30	Y	FACU	Number of D	ominant Species	s that	4
2						CW, or FAC (A):		1
3						er of Dominant S	pecies	5
5			_		Across All St	` '	- Tl4	
3	20% Total Cover 6	30	= Total Cov	/or		ominant Species CW, or FAC (A/I		20
		30	- Total Cov	761	•			
Sapling/Shrub Stratu	<u>m</u> <3" DBH or > 1 m tall (Plot	size: 15' ra	dius)		Prevalence	Index Workshe	et:	
1 Lonicera tatarica		5	Y	FACU	Total % C	Cover of:	Multiply	<u>/ by:</u>
2 Ribes missourien	se (Gooseberry)	5	Y	FAC	OBL species			
3					FACW specie			
5					FAC species FACU specie		3	
<u> </u>	20% Total Cover 2	10	= Total Cov	/or	UPL species	× X		
		10	- Total Cov	/GI	_		B)	
Herb Stratum non-wo	oody or woody < 1 m tall (Plot	size: 5' radi	us)		`	nce Index = B/A		
1 Glechoma hedera	acea (Ground Ivy)	20	Y	FACU		Vegetation Inc		 ;:
	alis (Northern Woodland Violet)	15	Υ	FACU		pid Test for Hydr		
3 Urtica dioica (Stir	nging Nettles)	5	N	FACW		minance Test is		
4						evalence Index is		
7						rphological Adar ride supporting d		
8					Rema		ala III	
9					_	lematic Hydroph	vtic	
10						tation ¹ (Éxplain		
11						of hydric soil and		k
12	000/ = 110					ust be present, ເ	ınless	
50% Total Cover	20% Total Cover 8	40	= Total Cov	/er	disturbed or	problematic.		
Woody Vine Stratum	> 1 m tall (Plot size: 30)' radius)						
1					Hydrophyti			
2					Vegetation Present?	Yes	_ No	X
1	20% Total Cover		_ Tet-1 O		Fiesent?			
Domorko: \Matter			= Total Cov	/ei				
Remarks: Wetland	d vegetation was not dominant.							

Profile D	escription: (Desc	cribe to	the depth neede	d to do	ocumen	t the indi	cator to conf	firm the absence of indicators.)		
Depth	Matrix			Redo	x Featu	res		Remarks		
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-10	10YR 3/1	100	, ,				Sandy clay	Traces gravel, coal, glass - Fill		
¹ Type: C=	L Concentration D=De	l epletion	RM=Reduced Matrix	CS=C	covered o	or Coated S	Sand Grains	2 Location: PL=Pore Lining, M=Matrix		
	oil Indicators:	оргоноп,	Taw Teadoca Matri	к, оо с	overeu e	or obulou c		Indicator for Problematic Hydric Soils ³ :		
•	listosol (A1)		San	dv Glev	ed Matr	ix (S4)		Coast Prairie Redox (A16)		
	listic Epipedon (A2)			ox (S5)	()	_	Iron-Manganese Masses (F12)		
	Black Histic (A3)	,			atrix (S6)	_	Other (Explain in Remarks)		
⊦	lydrogen Sulfide (A	4)	Loai	my Muc	ky Mine	ral (F1)	_			
	Stratified Layers (A5	5)			yed Matı					
	cm Muck (A10)				latrix (F3					
	Depleted Below Dar				k Surface			2		
	hick Dark Surface					ace (F7)		³ Indicators of hydrophytic vegetation and		
	Sandy Mucky Miner			ох Dep	ressions	s (F8)		wetland hydrology must be present, unless disturbed or problematic.		
	cm Mucky Peat or	•	03)					disturbed of problematic.		
	ve Layer (if obse									
Type:	Unknow	n		_						
Depth (inc	ches): <u>10</u>			_		Hydric Sc	oil Present?	Yes No <u>X</u>		
Remarks:	Hydric indicator	s were	not observed.							
HYDRO	LOGY									
Motland	Hydrology Indica	otoro:								
			is required; check a	ıll that s	nnly)		Sec	condary Indicators (minimum of 2 required)		
	Surface Water (A1)	i di dile				ves (B9)	<u>060</u>	Surface Soil Cracks (B6)		
	ligh Water Table (A	(2)			una (B13			Drainage Patterns (B10)		
	Saturation (A3)	/			ic Plants		-	Dry-Season Water Table (C2)		
	Vater Marks (B1)		— Hyd	rogen S	Sulfide O	dor (Ć1)		Crayfish Burrows (C8)		
	Sediment Deposits ((B2)				on Living Ro	oots (C3)	Saturation Visible on Aerial Imagery (C9)		
	Orift Deposits (B3)		Pres	sence o	f Reduc	ed Iron (C4	4)	Stunted or Stressed Plants (D1)		
	lgal Mat or Crust (E	34)	Rece	ent Iron I	Reduction	n on Tilled S	oil (C6)	Geomorphic Position (D2)		
	on Deposits (B5)				Surface	` '		FAC-Neutral Test (D5)		
	nundation Visible on A		· · · /	U	Vell Data	` '				
S	parse Vegetated Con	icave Sui	face(B8) Othe	er (Expl	ain in Re	emarks)				
Field Ob	servations:									
Surface V	Vater Present?	Yes		epth:		in				
Water Tal	ble Present?	Yes		epth:		in				
Saturation	n Present?	Yes	No <u>X</u> D	epth: _		in We	tland Hydrolo	ogy Present Yes No X_		
_	capillary fringe)									
Describe	Recorded Data (str	eam ga	uge, monitoring wel	I, aerial	photos,	previous i	nspections), if	available:		
Remarks:	Wetland hydrol	OUN WS	not observed							
rtemants.	vvedana nyurur	ogy was	TIOL ODSELVEU.							

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site:	Des Moines Area Transloading I	Facility	City/County:	Des Moin				19
Applicant/Owner:	Des Moines Industrial		State:	IA Sar	mpling Point:	DP-1	6	
Investigator(s):	A. Corcoran/K. Johi	nson	- nship Range	Sec. 2, Twp.	. 78N, R 24W			
Landform (hillslope,	terrace, etc.): Woodland	concave, co	nvex, none): N	None				
Slope (%):	Lat: 41°35'10.44"	5'49.56"	Datum:	Upland				
Soil Map Unit Name	: Urban land	NV	VI Classification:	Not identifi	ied			
Are climatic/hydrologic	conditions on the site typical for thi	s time of yea	ar? Yes	1	No (If no, explain i	n Rem	arks)
Are vegetation N		-			al Circumstances"			
Are vegetation N		_	-					
SUMMARY OF F	NDINGS – Attach site map s	howing sa	mpling poin	t locations,	transects, impe	ortant feature	s, etc.	
Hydrophytic Vegeta		No X	_ la tha	Campled A	***	_	_	
Hydric Soil Present?		No X		Sampled A			No	Х
Wetland Hydrology	· 	No X	-					
Remarks: Data po	oint was taken in a woodland are	ea south of	the railroad a	nd west of t	he northern port	ion of WL-3.		
VEGETATION – U	Jse scientific names of plants	•			1			
Tree Stratum >3" DB	H (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Te	st Worksheet:	:	
1 Morus rubra (Red	Mulberry)	40	Y	FACU	Number of Don	ninant Species	that	4
2 Lonicera tatarica		5	N	FACU	are OBL, FACV			1
3 Catalpa speciose	(Catalpa Tree)	5	N	FACU	Total Number of		ecies	5
4					Across All Strat			
5	20% Total Cover 10		+		Percent of Dom are OBL, FACV			20
	20% Total Cover 10	. 50	= Total Co	/er	are OBL, I ACV	V, 01 1 AC (A/D	<i>)</i> ·	
Sapling/Shrub Stratu	\underline{m} <3" DBH or > 1 m tall (Plot	size: 15' rad	dius)		Prevalence Inc	dex Workshee	t:	
1 Lonicera tatarica	(Honeysuckle)	15	Y	FACU	Total % Cov	<u>rer of:</u>	Multiply	by:
2					OBL species	X 1		
3			-		FACW species	X 2		
5					FAC species FACU species	X 3		
<u> </u>	20% Total Cover 3	15	= Total Cov	l	UPL species	X 5		
		15	- 10tal C0	/ei	Totals (A)	/\begin{array}{c} \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
Herb Stratum non-wo	oody or woody < 1 m tall (Plot	size: 5' radi	us)		, ,	e Index = B/A =	·	
1 Glechoma hedera	acea (Ground Ivv)	30	Υ	FACU	Hydrophytic V			:
	uinquefolia (Virginia Creeper)	20	Y	FACU		Test for Hydro		
	alis (Northern Woodland Violet)	10	N	FACU		nance Test is >		J
4					3-Preva	alence Index is:	≤3.0 ¹	
6						hological Adapt		
7					_ (Provide Remark	e supporting da	ita in	
9						natic Hydrophyt	tio	
10						tion ¹ (Explain)	liC	
11					¹ Indicators of h	,	wetland	4
12					hydrology must			•
50% Total Cover	20% Total Cover12	60	= Total Co	/er	disturbed or pro	oblematic.		
Woody Vine Stratum	> 1 m tall (Plot size: 30	ı)' radius)						
1 Vitis riparia (Rive	`	5	Υ	FACW	Hydrophytic			
2	1 /	-			Vegetation	Yes	No	X
1					Present?	-	•	
	20% Total Cover1	5	= Total Co	/er				
Remarks: Wetland	l vegetation was not dominant.		1					

Profile D		cribe to	the depth neede	d to do	ocumen	t the indi	cator to conf	firm the absence of indicators.)		
Depth	Matrix			Redo	x Featu	res		Remarks		
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-14	10YR 5/4	100	, ,				Sandy clay	Trace gravel, coal - Fill		
0 17	10111014	100					Carray day	Trace graver, coar Tim		
¹ Type: C=	Concentration, D=D	epletion,	RM=Reduced Matrix	, CS=C	covered o	or Coated S	and Grains.	2 Location: PL=Pore Lining, M=Matrix		
Hydric S	oil Indicators:							Indicator for Problematic Hydric Soils ³ :		
· -	listosol (A1)		San	dy Gley	ed Matr	ix (S4)		Coast Prairie Redox (A16)		
⊦	listic Epipedon (A2)	San	dy Red	ox (S5)		_	Iron-Manganese Masses (F12)		
B	Black Histic (A3)		Strip	ped Ma	atrix (S6)	_	Other (Explain in Remarks)		
+	lydrogen Sulfide (A	4)	Loai	my Mud	ky Mine	ral (F1)				
S	Stratified Layers (A	5)			yed Matr					
	cm Muck (A10)			leted M	latrix (F3	3)				
	epleted Below Dar				k Surface					
	hick Dark Surface					ace (F7)		³ Indicators of hydrophytic vegetation and		
	andy Mucky Miner			ox Dep	ressions	wetland hydrology must be present, unless				
5	cm Mucky Peat or	Peat (S	53)	disturbed or problematic.						
Restricti	ve Layer (if obse	rved):								
Type:	Unknow	'n								
Depth (ind	ches): 14			_		Hydric So	oil Present?	Yes No <u>X</u>		
Remarks:		c wore	not observed	_	1					
i (Ciliai No.	r ryuric iriulcator	S WEIG	not observed.							
HYDRO	LOGY									
Wetland	Hydrology Indica	ators:								
			is required; check a	II that a	(vlage		Sec	condary Indicators (minimum of 2 required)		
	Surface Water (A1)	01 0110				/es (B9)	<u>55.</u>	Surface Soil Cracks (B6)		
	ligh Water Table (A	(2)			una (B13		-	Drainage Patterns (B10)		
	Saturation (A3)	/			ic Plants		-	Dry-Season Water Table (C2)		
	Vater Marks (B1)					dor (C1)		Crayfish Burrows (C8)		
	Sediment Deposits	(B2)				on Living Ro	ots (C3)	Saturation Visible on Aerial Imagery (C9)		
	rift Deposits (B3)	,				ed Iron (C4		Stunted or Stressed Plants (D1)		
	lgal Mat or Crust (l	34)				n on Tilled S		Geomorphic Position (D2)		
	on Deposits (B5)	,			Surface		` '	FAC-Neutral Test (D5)		
	nundation Visible on A	erial Ima			Vell Data	` '		. ,		
s	parse Vegetated Con	cave Sui				emarks)				
Field Ob	servations:		· · · <u></u>							
	Vater Present?	Voc	No Y D	onth:		in				
	ole Present?	Yes Yes		epth: _ epth:		_ in in				
	n Present?	Yes		epth:		_	tland Hydrolo	ogy Present Yes No X		
	capillary fringe)	169	NO D	ории		- " "	dana riyuron	yy i resent i es NO _X		
		eam da	uge, monitoring wel	Laeria	nhotos	nrevious	nspections) if	available:		
Pesciloe	i tooolada Data (Sti	cum ya	ago, momoning we	i, aciia	priotos,	provious	1.0pcodon3 <i>)</i> , 11	available.		
Remarks:	Wetland hydrol	ogv was	not observed							
		٠٠٠٠٠ رق								

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site:	Des Moines Area Transloading I	Facility (City/County:	Des Moin	es, Polk Sampling Date:	7/23/	19
Applicant/Owner:	Des Moines Industrial		,	State:	IA Sampling Point: DP-17		
Investigator(s):	A. Corcoran/K. Johi	nson S	Section, Town	- iship Range	E: Sec. 2, Twp. 78N, R 24		
	terrace, etc.): Old railroad dit				nvex, none): Concave		
Slope (%):	Lat: 41°35'10.44"		•	5'49.56''	Datum: Upland		
Soil Map Unit Name			<u> </u>		VI Classification: Not ider	ntified	
	c conditions on the site typical for thi	s time of vea	r? Yes		No (If no, explai		narks)
Are vegetation N			y disturbed?		al Circumstances" present?	ΥX	
Are vegetation N		. •	y problematic'		ed, explain any answers in Re		-
	· <u> </u>			•		•	
	INDINGS – Attach site map s	howing sai	mpling point	locations,	transects, important feati	ıres, etc	•
Hydrophytic Vegeta		No X	_ lo the	Sampled A	* 00		
Hydric Soil Present?		No X		Sampled Ai a Wetland?		No	X
Wetland Hydrology		No X	_ """"	a Wolland	· 		
Remarks: Data po	oint was taken in an old railroad	ditch.					
VEGETATION - U	Use scientific names of plants						
		Absolute	Dominant	Indicator			
Tree Stratum >3" DB	H (Plot size: 30' radius)	% Cover	Species?	Status	Dominance Test Worksho	et:	
1 Ulmus Americana	a (American Elm)	35	Y	FACW	Number of Dominant Speci		5
2 Acer negundo (Bo	,	15	Υ	FAC	are OBL, FACW, or FAC (A	-	
3 Celtis occidentalis	s (Hackberry)	10	N	FAC	Total Number of Dominant	Species	10
5					Across All Strata (B):	aa That	
3	20% Total Cover 12	00	- T-4-1 C-1		Percent of Dominant Species are OBL, FACW, or FAC (A)		50
	20% Total Cover 12	60	= Total Cov	er	410 032,171011, 011710 (7		
Sapling/Shrub Stratu	m <3" DBH or > 1 m tall (Plot	size: 15' rad	ius)		Prevalence Index Worksh	eet:	
1 Cornus drummon	idii (Rough Leaf Dogwood)	5	Υ	FAC	 Total % Cover of:	Multiply	, by:
Lonicera tatarica		5	Y	FACU		<u>миниргу</u> Х 1	Uy.
3	()				· <u> </u>	X 2	
4					FAC species	X 3	
5					FACU species	X 4	
	20% Total Cover 2	10	= Total Cov	er	UPL species	X 5	
Herh Stratum non-wo	oody or woody < 1 m tall (Plot	size: 5' radiı	ie)		Totals (A)	(B)	
	, , , , , , , , , , , , , , , , , , ,	1	,		Prevalence Index = B/		
	te (Orchard Grass)	20	Y	FACU	Hydrophytic Vegetation II		
	nsis (Canada Goldenrod)	10 10	Y	FACU	1-Rapid Test for Hy		Veg
	siifolia (Annual Ragweed)	10	Y	FACU FACU	2-Dominance Test i 3-Prevalence Index		
	(Honeysuckl) <1m	5	N	FACU	4-Morphological Ad		
	alis (Northern Woodland Violet)	5	N	FACU	(Provide supporting		
8 Cyperus esculent	tus (Yellow Nutgrass)	5	N	FACW	Remarks)		
9					Problematic Hydrop		
10					Vegetation ¹ (Explai	-	
11					1 Indicators of hydric soil ar		d
	32.5 20% Total Cover 13	CF.	- T-4-1 O-1		hydrology must be present, disturbed or problematic.	uniess	
		65	= Total Cov	er er			
Woody Vine Stratum	> 1 m tall (Plot size: 30)' radius)]		
1 Vitis riparia (Rive		5	Υ	FACW	Hydrophytic		
2 Smilax rotundifoli	a (Greenbrier)	3	Y	FAC	Vegetation Yes	No	X
1	200/ T-1-1 0 4.0	_	_		Present?		
_	20% Total Cover 1.6	. 8	= Total Cov	er			
Remarks: Wetland	d vegetation was not dominant.						

Profile D	escription: (Des	cribe to	the depth neede	ed to do	ocumen	<u>nt the indi</u>	cator to conf	irm the absence of indicators.)	
Depth	Matrix			Redo	x Featu	ires		Remarks	
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	кешагкѕ	
0-4	10YR 3/2	100	,		,,		Sandy clay	Trace gravel, wood, brick	
4/10	10YR 5/4	100					Sandy clay	Trace gravel, coal, brick	
		epletion,	RM=Reduced Matri	x, CS=C	covered of	or Coated S		2 Location: PL=Pore Lining, M=Matrix	
	oil Indicators:		_					Indicator for Problematic Hydric Soils ³ :	
⊦	listosol (A1)		Sar	ndy Gley	∕ed Matr	ix (S4)	_	Coast Prairie Redox (A16)	
⊢	listic Epipedon (A2)	Sar	ndy Red	ox (S5)		_	Iron-Manganese Masses (F12)	
В	Black Histic (A3)		Stri	pped Ma	atrix (S6	i)		Other (Explain in Remarks)	
	lydrogen Sulfide (A	4)	Loa	my Muc	cky Mine	eral (F1)			
s	stratified Layers (As	5)	Loa	my Glev	yed Matı	rix (F2)			
2	cm Muck (A10)	,			latrix (F3				
	epleted Below Óar	k Surfac			k Surfac				
	hick Dark Surface					ace (F7)		³ Indicators of hydrophytic vegetation and	
	andy Mucky Miner				ressions	, ,		wetland hydrology must be present, unless	
	cm Mucky Peat or			ор				disturbed or problematic.	
	ve Layer (if obse								
Type:	Unknow	'n		_					
Depth (ind	ches): 10					Hydric So	oil Present?	Yes No <u>X</u>	
Remarks:	Hydric indicator	rs were	not observed.						
HYDRO									
	Hydrology Indica								
		of one	is required; check a				<u>Sec</u>	condary Indicators (minimum of 2 required)	
	Surface Water (A1)					ves (B9)		Surface Soil Cracks (B6)	
	ligh Water Table (<i>A</i>	\ 2)			una (B13			Drainage Patterns (B10)	
S	Saturation (A3)				ic Plants			Dry-Season Water Table (C2)	
V	Vater Marks (B1)					Odor (C1)		Crayfish Burrows (C8)	
S	Sediment Deposits	(B2)				on Living Ro		Saturation Visible on Aerial Imagery (C9)	
	rift Deposits (B3)		Pre	sence o	f Reduc	ed Iron (C4	4) <u> </u>	Stunted or Stressed Plants (D1)	
	lgal Mat or Crust (I	B4)				n on Tilled S		Geomorphic Position (D2)	
	on Deposits (B5)	•			Surface		` '	FAC-Neutral Test (D5)	
Inundation Visible on Aerial Imagery(B7) Gauge or Well Data (D9)									
Sparse Vegetated Concave Surface(B8) Other (Explain in Remarks)									
				\ I					
	servations:	V	N- V F	\ 4l- ·					
	Vater Present?	Yes		epth: _		_ in			
	ole Present?	Yes _		epth: _		_ in		.	
Saturation	n Present?	Yes	No <u>X</u> D	epth: _		_ in We	tland Hydrolo	ogy Present Yes No X_	
(includes	capillary fringe)					- : :		2.11	
(includes		eam ga	uge, monitoring we	II, aerial	l photos,	, previous i	nspections), if	available:	
(includes		eam ga	uge, monitoring we	ll, aerial	l photos,	, previous i	nspections), if	available:	
(includes Describe	Recorded Data (str			ll, aerial	I photos,	, previous i	nspections), if	available:	
(includes	Recorded Data (str			ll, aerial	l photos,	, previous i	nspections), if	available:	

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site:	Des Moines A	rea Transloading	Facility	City/County: Des Moine			es, Polk	Sampling Da	te: 7/23	/19
Applicant/Owner:	Des Moines I	ndustrial		State:			IA	Sampling Po	int: DP-	18
Investigator(s):	A.	Corcoran/K. Jol	nnson	Section, Township Range: Sec. 2, Twp. 78N, R 24W						
Landform (hillslope,	terrace, etc.):	Disturbed are	a	Local	Relief (d	concave, co	nvex, none):	None		
Slope (%):	Lat: 41	1°35'10.44"		Long:	93°3	5'49.56"	Datum:	Upland		
Soil Map Unit Name	: Urban land					NV	VI Classificati	ion: Not id	dentified	
Are climatic/hydrologic	conditions on th	ne site typical for th	nis time of ye	ear?	Yes	<u> </u>	No	(If no, exp	lain in Rer	narks)
Are vegetation N	soil N or	hydrology N	significa	ntly dist	turbed?	Are "Norma	al Circumstanc	es" present?	ΥX	N
Are vegetation N	soil N or	hydrology N	– significaı	ntly pro	blematic	? (if need	ed, explain an	y answers in	Remarks)	
SUMMARY OF FI	NDINGS – A	ttach site map	showing s	amplii	ng point	t locations,	transects, i	mportant fe	atures, etc).
Hydrophytic Vegeta		Yes X	No		la tha	Campled A				
Hydric Soil Present?		Yes	No \rightarrow			Sampled Ai a Wetland?		·	No _	<u> </u>
Wetland Hydrology		Yes	No _>	_						
		near the overpastice was mostly a					in several ar	ea under the	e bridge;	
VEGETATION – U	Jse scientific	names of plant	s.							
Tree Stratum >3" DB	H (Plot size	e: 30' radius)	Absolute % Cove		ominant pecies?	Indicator Status	Dominance	e Test Works	sheet:	
1								Dominant Sp		1
3			1					ACW, or FAC		
4							Across All S	er of Domina Strata (B):	nt Species	1
5								Dominant Spe	ecies That	
	20% T	otal Cover		= 7	Total Cov	/er		ACW, or FAC		100
Sapling/Shrub Stratu	<u>m</u> <3" DBH or >	· 1 m tall (Plo	t size: 15' ra	adius)			Prevalence	Index Work	sheet:	
1							Total %	Cover of:	Multipl	y by:
2							OBL species		X 1	
3							FACW spec		X 2	
4							FAC species		_ X 3	
5	20% T	otal Cover		-	.		FACU species UPL species		- X 4 X 5	
	2070 1	Otal Covel	_	=	Total Cov	/er	1			
Herb Stratum non-wo	ody or woody <	1 m tall (Plo	t size: 5' rad	dius)			, ,	(A) ence Index =	(B)	
1 Phalaris arundina	cea (Reed Can	ary Grass)	80		Υ	FACW	1	ic Vegetation		s:
2	ood (1100d odi)	ary Grace,			<u> </u>	17.011		apid Test for		
3								ominance Te	, ,	3
4							3-Pr	evalence Ind	ex is ≤3.0 ¹	
6								orphological <i>i</i>		;
7								vide supporti	ng data in	
9								narks)	rankı dia	
10							Veg	olematic Hydr etation ¹ (Exp	opnytic dain)	
11							_	of hydric soil		d
12								nust be prese		u
50% Total Cover	20% T	otal Cover 20	80	= 7	Total Cov	/er	disturbed or	r problematic	- -	
Woody Vine Stratum	> 1 m tall	(Plot size: 3	30' radius)							
1							Hydrophyt	ic		
2			1				Vegetatio	n Yes _	X No	
1			1	_			Present?	,		
		otal Cover			Total Cov					
Remarks: Wetland	l vegetation was	s dominant and p	asses the F	AC-Ne	eutral tes	t				

Profile D	escription. (Des	CIIDE IC	the acpuir necac	u to ut	ocumen	t tile illui	oator to oon	firm the absence of indicators.)
Depth	Matrix			Redo	ox Featur	es		Domonico
(inches)	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	- Remarks
0-2	10YR 2/1	100	,				Sandy	Fill
0-2	1011 2/1	100					Clay	FIII
							Clayey	
2-14	10YR 4/36	100					sand/grave	Fill
							l/coal/brick	
¹Type: C=	Concentration D=D	enletion	RM=Reduced Matri	x CS=C	Covered o	r Coated S	and Grains	2 Location: PL=Pore Lining, M=Matrix
	oil Indicators:	оргоноп,	Trivi Troduced Matri	х, оо с	JOVOICO O	· Oddica c	ana Oramo.	Indicator for Problematic Hydric Soils ³ :
	listosol (A1)		San	dv Glev	yed Matri	x (S4)		Coast Prairie Redox (A16)
	listic Epipedon (A2)			ox (S5)	х (О 1)	-	Iron-Manganese Masses (F12)
	Black Histic (A3)	,			atrix (S6)	١	-	Other (Explain in Remarks)
	lydrogen Sulfide (A	4)			cky Miner		-	
	Stratified Layers (A				yed Matri			
	cm Muck (A10)	-,			1atrix (F3			
	Depleted Below Dai	k Surfa			k Surface			
	hick Dark Surface				ark Surfa			³ Indicators of hydrophytic vegetation and
	Sandy Mucky Miner	,			ressions			wetland hydrology must be present, unless
	cm Mucky Peat or					(- /		disturbed or problematic.
	ve Layer (if obse	•	,					·
Type:	Unknow							
I V DC.								
				_		Hydric S	nil Present?	Yes No Y
Depth (inc	ches): 14			_ 		•	oil Present?	Yes NoX
	ches): 14		or the immediate vio	— cinity wa				
Depth (inc	ches): 14		or the immediate vio	— cinity wa				
Depth (inc	ches): 14		or the immediate vio	inity wa				
Depth (inc	ches): 14 Area under the		or the immediate vio	 cinity wa				
Depth (incomercial Remarks:	Area under the	bridge (or the immediate vio	— cinity wa				
Depth (ind Remarks: HYDRO Wetland	Area under the LOGY Hydrology Indic	bridge o			as a sanc		fill material wi	th cobble.
Depth (incomments) Remarks: HYDRO Wetland Primary In	Area under the LOGY Hydrology Indicators (minimum	bridge of ators:	is required; check a	all that a	as a sand	dy/gravely	fill material wi	condary Indicators (minimum of 2 required)
Depth (inc Remarks: HYDRO Wetland Primary Ir	Area under the LOGY Hydrology Indicators (minimum Surface Water (A1)	bridge of ators:	is required; check a	all that a	as a sand	es (B9)	fill material wi	condary Indicators (minimum of 2 required) Surface Soil Cracks (B6)
Depth (inc Remarks: HYDRO Wetland Primary IrS	Area under the LOGY Hydrology Indicators (minimum Gurface Water (A1) High Water Table (A)	bridge of ators:	is required; check a Wat Aqu	all that a er-Stair atic Far	as a sand apply) ned Leav una (B13	dy/gravely	fill material wi	condary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Drainage Patterns (B10)
Depth (inc Remarks: HYDRO Wetland Primary Ir S H S	Area under the LOGY Hydrology Indicators (minimum Surface Water (A1) High Water Table (Asturation (A3)	bridge of ators:	is required; check a Wat Aqu True	all that a ter-Stair atic Far e Aquat	as a sanc apply) ned Leav una (B13	es (B9)) (B14)	fill material wi	condary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (inc Remarks: HYDRO Wetland Primary Ir	Area under the LOGY Hydrology Indicators (minimum Surface Water (A1) High Water Table (AS Saturation (A3) Vater Marks (B1)	ators: n of one	is required; check a Wat Aqu True Hyd	all that a er-Stair atic Far e Aquat	as a sand apply) ned Leav una (B13 iic Plants Sulfide Od	es (B9)) (B14) dor (C1)	fill material wi	condary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Depth (inc Remarks: HYDRO Wetland Primary Ir S H S V S	Area under the LOGY Hydrology Indicators (minimum Surface Water (A1) High Water Table (AS aturation (A3) Water Marks (B1) Sediment Deposits	ators: n of one	is required; check a Wat Aqu True Hyd Oxid	all that a ter-Stain atic Fai e Aquat rogen S ized Rhiz	apply) ned Leav una (B13 iic Plants Sulfide Occospheres occurrence occur	es (B9)) (B14) dor (C1) on Living Ro	Se	condary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
HYDRO Wetland Primary Ir S H S C S C S C S C S C S C S C S C	Area under the LOGY Hydrology Indicators (minimum Surface Water (A1) High Water Table (A3) Water Marks (B1) Sediment Deposits Orift Deposits (B3)	ators: n of one A2)	is required; check a Wat Aqu True Hyd Oxid Pres	all that a ter-Stain atic Fan e Aquat rogen S ized Rhiz sence c	apply) ned Leav una (B13 iic Plants Sulfide Occospheres of	es (B9)) (B14) dor (C1) on Living Ro	Seots (C3)	condary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Depth (inc Remarks: HYDRO Wetland Primary Ir S H S A	Area under the LOGY Hydrology Indic adicators (minimum Surface Water (A1) digh Water Table (A) Saturation (A3) Vater Marks (B1) Sediment Deposits Oriff Deposits (B3) Algal Mat or Crust (ators: n of one A2)	is required; check a Wat Aqu True Hyd Oxid Pres	all that a ter-Stain atic Far e Aquat rogen s ized Rhiz sence c ent Iron	apply) ned Leav una (B13 ic Plants Sulfide Occospheres of Reduce Reduction	dy/gravely es (B9)) (B14) dor (C1) on Living Ro ed Iron (C- on Tilled S	Se Se Solots (C3) Solots (C3) Solots (C6) Solot (C6)	condary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Depth (inc Remarks: HYDRO Wetland Primary Ir S S S S In Ir	Area under the LOGY Hydrology Indic adicators (minimum Surface Water (A1) digh Water Table (A Saturation (A3) Vater Marks (B1) Sediment Deposits Oriff Deposits (B3) Algal Mat or Crust (Fon Deposits (B5)	ators: n of one A2) (B2)	is required; check a Wat Aqu True Hyd Oxid Pres Reco	all that a ter-Stair atic Far e Aquat rogen S ized Rhiz sence c ent Iron	as a sand apply) ned Leav una (B13 iic Plants Sulfide Occospheres of f Reduce Reduction Surface (dy/gravely es (B9)) (B14) dor (C1) on Living Ro ed Iron (Co on Tilled S (C7)	Seots (C3)	condary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
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APPENDIX D Ground Photographs





Photo 1: View of WL-1, looking west-northwest.



Photo 2: View of the easternmost portion of WL-1, looking northeast.





Photo 3: View of the western portion of WL-2, looking northeast.



Photo 4: View of the eastern portion of WL-2, looking southwest.





Photo 5: View of WL-3, looking west from the eastern portion of the wetland.



Photo 6: View of WL-3, looking west from the central portion of the wetland.





Photo 7: View of ephemeral drainage features that runs through WL-3 before discharging to a City stormwater basin.



Photo 8: View of WL-4, looking southeast.





Photo 9: View of WL-5, looking southwest.



Photo 10: View of WL-5, looking west.





Photo 11: View of the wooded area south of the railroad on the west-central portion of the site



Photo 12: View of the westernmost portion of the site, looking west.



DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS, ROCK ISLAND DISTRICT PO BOX 2004 CLOCK TOWER BUILDING ROCK ISLAND, ILLINOIS 61204-2004

December 4, 2019

Operations Division

SUBJECT: CEMVR-OD-P-2019-1195

Mr. Gabe Claypool President & COO Des Moines Industrial 512 ½ E. Grand Avenue Des Moines, IA 50309

Dear Mr. Claypool:

Our office reviewed your AJD request, which was received on September 27, 2019, concerning the future Des Moines Area Transloading facility site located in Section 2, Township 78 North, Range 24 West, Polk County, Iowa.

We have determined that the five wetlands, totaling 4.45 acres, that are located within the project area are isolated and have no significant nexus to downstream traditionally navigable waterways. The discharge of dredged or fill material into these identified isolated wetlands will not require Department of the Army authorization.

If you object to this approved jurisdictional determination, you may request an administrative appeal under Corps regulations found at 33 CFR Part 331. Enclosed is a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this approved jurisdictional determination, you must submit a completed RFA form to the Mississippi Valley Division Office at the following address:

Should you have any questions, please contact our Regulatory Branch by letter, or telephone Abby Steele at 309/794-5377.

Sincerely,

Matthew A. Zehr

Chief, Iowa Permit Section

Regulatory Branch

Copies Furnished (w/enclosures):

Mr. Adam Corcoran Terracon Consultants, Inc. 600 Southwest 7th Street, Suite M Des Moines, Iowa 50309

APPROVED JURISDICTIONAL DETERMINATION FORM

U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SEC A.	CTION I: BACKGROUND INFORMATION REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): November 21, 2018
B.	DISTRICT OFFICE, FILE NAME, AND NUMBER: MVR; Des Moines Industrial; 2019-1195
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Iowa County/parish/borough: Polk City: Des Moines Center coordinates of site (lat/long in degree decimal format): Lat. 41.586 ° N, Long. –93.599 ° W. Universal Transverse Mercator: 15 Name of nearest water body: Des Moines River Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Des Moines River Name of watershed or Hydrologic Unit Code (HUC): 07100004 Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): ☐ Office (Desk) Determination. Date: 11/21/2019 ☐ Field Determination. Date(s):
SEC A.	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:
В. (CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	re Are no "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required
	1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters:

Wetlands:

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known):

Non-regulated waters/wetlands (check if applicable):3

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Wetlands 1, 2, 3, 4 & 5 (totaling 4.45 acres) shows no connection to any other WUS. The wetlands likely receives surface runoff from the adjacent areas and overhead precipitation. It appears that these wetlands have no connection to any RPW's on both aerial maps, USGS topo maps and lidar. Defined in Section 3C below.

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

		W

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions: Watershed size: Pick List Drainage area: Pick List

Average annual rainfall: Average annual snowfall:

property section of the operation of the property

(ii) Physical Characteristics:

Relationship with TNW:
Tributary flows directly into TNW.

Tributary flows through tributaries before entering TNW.

Project waters are Pick List river miles from TNW.

Project waters are Pick List river miles from RPW.

Project waters are Pick List aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW5:

Tributary stream order, if known:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

	(b)	General Tributary	Characteris	stics (check all that appl	y):			
		Tributary is:	Natura					
				cial (man-made). Expla pulated (man-altered).		in:		
			☐ Manip	duated (man-attered).	Блріа	.111.		
				spect to top of bank (esti	mate):		
		Average widt Average dept						
		Average side		k List.				
		Primary tributary s	substrate co	mposition (check all the Sands	at app	ly):	Concrete	
		Cobbles		Gravel			Muck	
		Bedrock		☐ Vegetation. Type/%	6 cov	er:		
		Other. Exp	plain:	*				
		Tributary condition	n/stability [e.g., highly eroding, slo	ughir	ng banks].	Explain:	
		Presence of run/rif						
		Tributary geometry Tributary gradient			%			
		Trioutary gradient	(аррголин	are average stope).	70			
	(c)	Flow:	C D: 1 T					
		Tributary provides Estimate average n		low events in review are	ea/vea	r: Pick Li	ist	
		Describe flow	v regime:					
		Other information	on duration	and volume: .				
		Surface flow is: Pi	ick List. C	haracteristics: channeliz	ed an	d visible.		
		Subsurface flow: P	Pick List. I	Explain findings:				
		☐ Dye (or ot	ther) test pe	rformed: .				
		Tributary has (chec	ck all that a	pply):				
		☐ Bed and b	anks					
				ndicators that apply): e impressed on the bank		the prese	ence of litter and debris	
				aracter of soil	H		on of terrestrial vegetation	
		shelvi	ing			the prese	ence of wrack line	
				d down, bent, or absent ed or washed away	\mathbb{H}	sediment	t sorting	
			nent deposit		H	scour multiple	observed or predicted flow events	
			staining				hange in plant community	
		☐ other	. 10	M.7 Evoloini				
		Discontinu	uous On w	M. ⁷ Explain: .				
					ne la	teral exten	nt of CWA jurisdiction (check all that apply):	
		High Tid		cated by:			/ater Mark indicated by: available datum;	
				is deposits (foreshore)		physical m		
		physic	cal marking	s/characteristics			lines/changes in vegetation types.	
		☐ tidal g	gauges					
		outer	(IISt).					
(iii)		mical Characterist		-1111		C1	land the second	
	Cha	racterize tributary (e Explain:	e.g., water o	color is clear, discolored	i, ony	iiim; wat	ter quality; general watershed characteristics,	etc.)
	Iden	tify specific polluta	ants, if knov	vn:				
(iv)	Rial	ogical Characteric	tics Chan	nel supports (check all	that	annlyle		
(IV)	DIUI	ogical Characteris	tits. Chall	mer supports (check all	unat	appry).		

(iv)

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break. ⁷Ibid.

		Riparian corridor. Characteristics (type, average width): Wetland fringe. Characteristics: Habitat for: Federally Listed species. Explain findings: Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings:
2.	Charact	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
		Wetland Characteristics: General Wetland Characteristics: Properties: Wetland size: Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. Explain:
	(b)	General Flow Relationship with Non-TNW: Flow is: Pick List. Explain:
		Surface flow is:
		Characteristics:
		Subsurface flow: Pick List . Explain findings: Dye (or other) test performed:
	(c)	Wetland Adjacency Determination with Non-TNW: Directly abutting Not directly abutting Discrete wetland hydrologic connection. Ecological connection. Explain: Separated by berm/barrier/man-made structures. Explain
	(d)	Proximity (Relationship) to TNW Project wetlands are Pick List river miles from TNW. Project waters are Pick List aerial (straight) miles from TNW. Flow is from: Pick List . Estimate approximate location of wetland as within the Pick List floodplain.
	Cha	emical Characteristics: aracterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: ntify specific pollutants, if known:
	(iii) Bio	Riparian buffer. Characteristics (type, average width): Vegetation type/percent cover. Explain: Habitat for: Federally Listed species. Explain findings: None observed. Fish/spawn areas. Explain findings: No standing water observed. Other environmentally-sensitive species. Explain findings: No environmentally sensitive species observed. Aquatic/wildlife diversity. Explain findings: Aquatic wildlife not observed.
3.	Charac	teristics of all wetlands adjacent to the tributary (if any)
	All	wetland(s) being considered in the cumulative analysis:
	List an	d describe (Emergent, scrub/shrub, forested) the wetlands:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

The wetland identified as Wetland 1 does not exhibit a significant nexus to downstream TNW's. No discrete connections could be observed when looking at historical aerial photographs nor on lidar maps.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: TNWs: linear feet width (ft), Or, acres. Wetlands adjacent to TNWs: acres.
2.	RPWs that flow directly or indirectly into TNWs.
	Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
	Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:
	Provide estimates for jurisdictional waters in the review area (check all that apply):
	Tributary waters:
	Other non-wetland waters: acres. Identify type(s) of waters:
3.	Non-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

⁸See Footnote # 3.

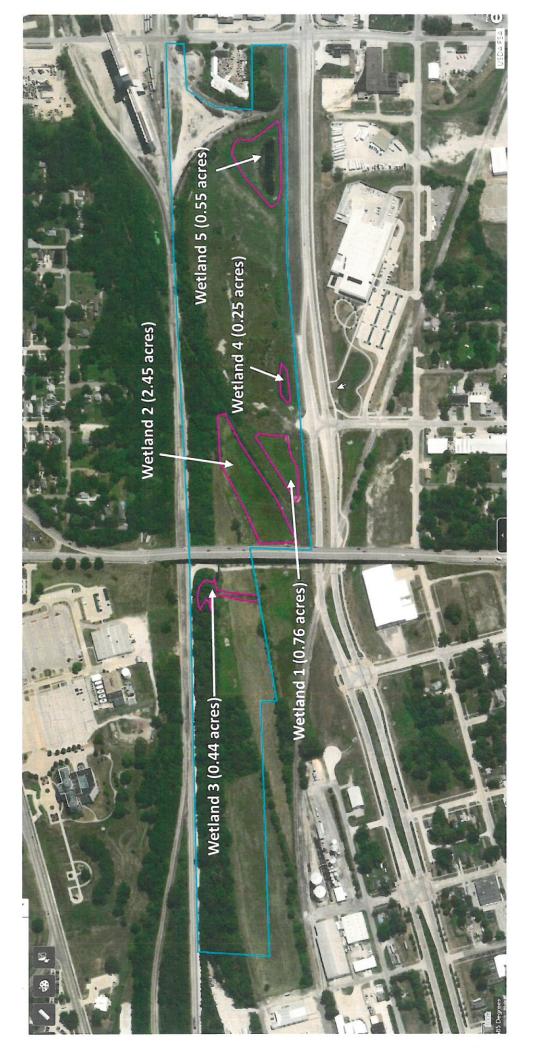
		Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .			
	4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:.			
		Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:			
		Provide acreage estimates for jurisdictional wetlands in the review area: acres.			
	5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.			
		Provide acreage estimates for jurisdictional wetlands in the review area:			
	6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.			
		Provide estimates for jurisdictional wetlands in the review area:			
	7.	Impoundments of jurisdictional waters. ⁹ As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below).			
E.	SUC	LATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:			
	Identify water body and summarize rationale supporting determination:				
		ride estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters:			
		Wetlands: acres.			
F.		N-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.			

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely "Migratory Bird Rule" (MBR).	on the
Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: See (3.) (0.)	C.)
above.	
Other: (explain, if not covered above):	
Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the M factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best profe judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands:	
Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, what a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): Lakes/ponds: Other non-wetland waters: acres. List type of aquatic resource: Wetlands: Wetlands 1, 2, 3, 4 & 5 (4.45 acres)	ere such
SECTION IV: DATA SOURCES.	
A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where cand requested, appropriately reference sources below): Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Materials submitted with application by Te in a wetland delineation report. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS 8 HDD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name:1:24,000; Polk, IA (Exhibit 1, delineation report). National wetlands inventory map(s). Cite name: Citation: Polk, Iowa; (Exhibit 3, delineation report). State/Local wetland inventory map(s). Cite name: Citation: Polk, Iowa; (Exhibit 2, delineation report). State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): (Aerials are found in delineation report) Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify): Attachment 1: Project area; Attachment 2: Lidar project area; Attachment 3: Lidar (largerofile)	rracon.

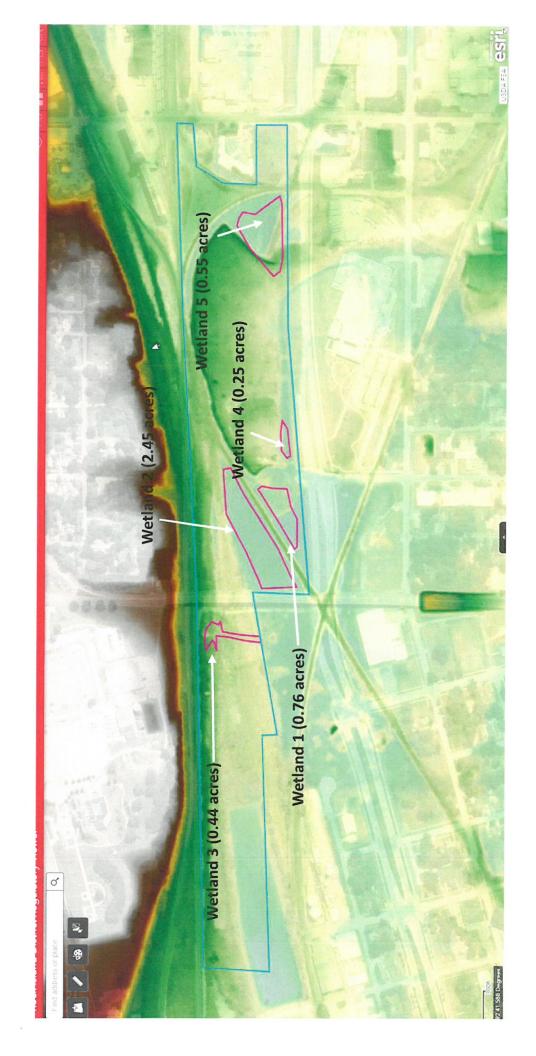
B. ADDITIONAL COMMENTS TO SUPPORT JD:

2019-1195 Des Moines Industrial, LLC



CEMVR-OD-2019-1195 Attachment 1 of 3 Aerial Project Map

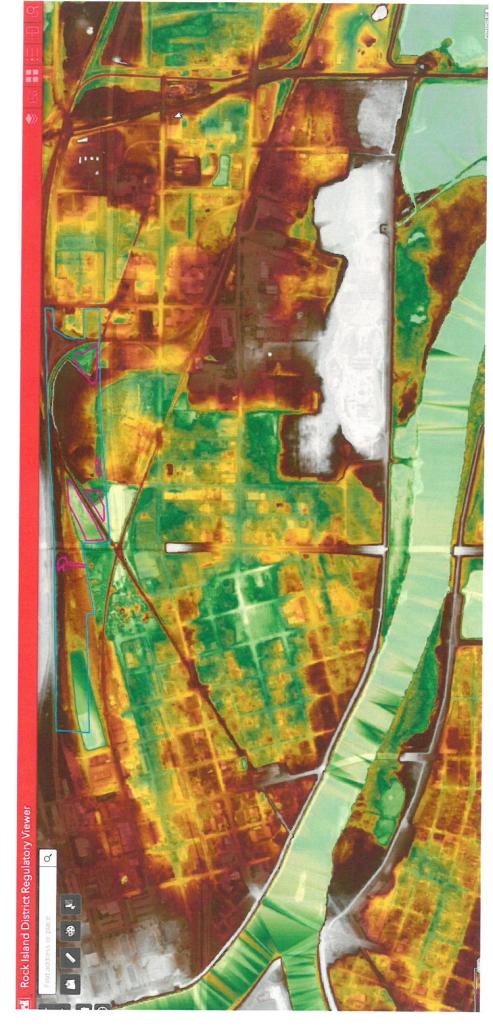
2019-1195 Des Moines Industrial, LLC



CEMVR-OD-2019-1195 Attachment 2 of 3 Lidar Project Map

2019-1195 Des Moines Industrial, LLC

No connection found



CEMVR-OD-2019-1195 Attachment 3 of 3 LiDAR (Large Profile)