

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.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 20 November 2012

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Wehrspann-Omaha District, Storz and Pershing Basin, NWO-2012-02129-WEH

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Nebraska County/parish/borough: Douglas City: Omaha
Center coordinates of site (lat/long in degree decimal format): Lat. 41.3147244379° N, Long. -95.9429597721° W.
Universal Transverse Mercator: Zone 14

Name of nearest waterbody: Minne Lusa Drainage to Missouri River

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Missouri River

Name of watershed or Hydrologic Unit Code (HUC): Missouri-Little Sioux, 10230006

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: 05 November 2012

Field Determination. Date(s): 25 October 2012

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review 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: Wetlands formed in storm water detention basins that were historically PFOA floodplain depressional wetlands that were within the historic floodplain of the Missouri River. Pershing Basin contains 6.411 acres of delineated wetlands and is connected via an underground pipe that is connected to Minne Lusa Drainage which enters the Missouri River. Storz Basin is completely surrounded by a 10 to 15-foot earthen berm and contains 1.9 acres of delineated wetlands. It also contains a concrete-lined, man-made channel that enters an underground pipe that goes to a lift station and then into the Missouri River.

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "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):¹

- 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: 5,500 linear feet: 5-40 width (ft) and/or acres.

Wetlands: 8.341 acres.

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

Elevation of established OHWM (if known): .

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

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).

³ Supporting documentation is presented in Section III.F.

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: .

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.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: Section 10 Waterway.

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: 78,000 acres

Drainage area: 13,000 acres

Average annual rainfall: 28.4 inches

Average annual snowfall: 24 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 2 tributaries before entering TNW.

Project waters are 1 (or less) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 1 (or less) aerial (straight) miles from TNW.

Project waters are 1 (or less) aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

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

Identify flow route to TNW⁵: Wetland overflows into pipe which flows into Minne Lusa Drainage (a perennial stream channel) which flows into the Missouri River.
Tributary stream order, if known: 1.

(b) General Tributary Characteristics (check all that apply):

Tributary is: Natural
 Artificial (man-made). Explain: .
 Manipulated (man-altered). Explain: Wetlands in Pershin Basin overflows into pipe (intermittent RPW) which flows into Minne Lusa Drainage (perennial RPW), into Missouri River (TNW). Wetlands in Storz Basin have the capability of overflowing into the concrete-lined channel that flows to a lift station and then into the Missouri River, a TNW.

Tributary properties with respect to top of bank (estimate):

Average width: Minne Lusa Drainage: 45 feet

Average depth: 5 feet

Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover:
 Other. Explain: Underground pipes, concrete-lined channel.

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Relatively stable.

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): <1% %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **6-10**

Describe flow regime: Magnitude, duration, and frequency vary according to amount of precipitation and number of precipitation events. The Pershing Basin underground stormwater pipe is an intermittent RPW and Minne Lusa Drainage is a perennial RPW. The Storz Basin concrete-lined channel is an intermittent RPW.

Other information on duration and volume: Storz and Pershing detention basins were created by excavating in PFOA floodplain depressional wetland. PEMA/C and some PFO wetlands have formed within these detention basins. The Pershing basin will hold water during precipitation events and overflow into the pipe that flows to the Minne Lusa Drainage, then to the Missouri River. The Storz basin is surrounded by a manmade. 10 to 15-foot berm that holds stormwater runoff in the basin. Stormwater enters the Storz basin via an outfall which flows into a concrete-lined channel, then into an underground pipe to a lift station, then to the Missouri River.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **No**. Explain findings: .

Dye (or other) test performed: .

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

High Tide Line indicated by: Mean High Water Mark indicated by:
 oil or scum line along shore objects survey to available datum;
 fine shell or debris deposits (foreshore) physical markings;

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.

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.

- physical markings/characteristics vegetation lines/changes in vegetation types.
 tidal gauges
 other (list):

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
 Explain: Underground stormwater pipe to Minne Lusa Drainage carries urban runoff that has entered the Pershing detention basin. Depending on amount of flow, there can be sand/sediment deposits within the Minne Lusa Drainage. Banks of the Minne Lusa Drainage are lined with rock riprap. The Storz detention basin receives stormwater and routes it via concrete channel, to underground pipe, to lift station, to the Missouri River. Depending on amount of flow, there can be sand/sediment deposits, trash, petroleum products, or yard chemicals within the channel.
 Identify specific pollutants, if known: Lawn chemicals, road oils and salts.

(iv) Biological Characteristics. Channel supports (check all that apply):

- Riparian corridor. Characteristics (type, average width): Some trees along Minne Lusa Drainage.
 Wetland fringe. Characteristics: Small amount of wetland fringe on Minne Lusa Drainage.
 Habitat for:
 Federally Listed species. Explain findings: .
 Fish/spawn areas. Explain findings: .
 Other environmentally-sensitive species. Explain findings: .
 Aquatic/wildlife diversity. Explain findings: Birds, insects, and small mammals.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:
 Wetland size: 8.341 acres
 Wetland type. Explain: Floodplain Depressional, historic PFOA.
 Wetland quality. Explain: Wetland acts to filter stormwater run-off before it enters the stormwater pipe to the Minne Lusa Drainage.
 Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: During storm events when basin has reached capacity, the water will flow into the stormwater pipe (intermittent flow) which flows into the Minne Lusa Drainage (perennial flow) and into the Missouri River (TNW).

Surface flow is: **Confined**

Characteristics: Flow in stormwater pipe to open flow in Minne Lusa Drainage.

Subsurface flow: **No**. Explain findings: .

Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- Directly abutting
 Not directly abutting
 Discrete wetland hydrologic connection. Explain: Wetland/stormwater detention basin will hold water during precipitation events and overflow into stormwater pipe to Minne Lusa Drainage when basin reaches capacity.
 Ecological connection. Explain: .
 Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **1 (or less)** river miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: PEMA/C Floodplain Depressional Wetland.
 Identify specific pollutants, if known: Lawn chemicals; road oils and salts.

(iii) Biological Characteristics. Wetland supports (check all that apply):

- Riparian buffer. Characteristics (type, average width): .
 Vegetation type/percent cover. Explain: PEM 100%.
 Habitat for:

- Federally Listed species. Explain findings: .
- Fish/spawn areas. Explain findings: .
- Other environmentally-sensitive species. Explain findings: .
- Aquatic/wildlife diversity. Explain findings: Insects, birds, and small mammals.

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **11**
 Approximately (8.341) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
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See Additional Comments Section IV B.

Summarize overall biological, chemical and physical functions being performed: Wetlands act to hold stormwater before entering the stormwater pipes to Missouri River, trap and hold yard chemicals and road oils and salts, provide habitat for birds, insects, and small mammals.

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: Wetlands have formed in a stormwater detention basin that was historically PFOA floodplain depressional wetlands of the Missouri River. Wetlands will overflow into stormwater pipe and flow for approximately 1,100 feet where it flows into the Minne Lusa Drainage, which flows for approximately 2,000 feet into the Missouri River. The streams and their adjacent wetlands also provide a biological benefit to the downstream Traditional Navigable Water through carbon cycling contributions to the downstream food webs. The loss of streams and riparian areas within the surrounding watershed amplifies the importance of the stream and wetland carbon inputs for the downstream Traditional Navigable Water.

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: Minne Lusa Drainage is a perennial drainage.
 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: When the stormwater detention basin has reached capacity, it will flow into the stormwater pipe (intermittent RPW) which flows into Minne Lusa Drainage (perennial RPW).

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: **5500** linear feet **5-40** width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁸ 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.

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 jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: **8.341** acres.

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: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

- 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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

Provide 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. NON-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.
 - Prior to the Jan 2001 Supreme Court decision in “SWANCC,” the review area would have been regulated based solely on the “Migratory Bird Rule” (MBR).
- Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain: .
- 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 MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

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 checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- 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 NHD data.

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.

- USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Omaha North 1:24,000.
- USDA Natural Resources Conservation Service Soil Survey. Citation: Douglas and Sarpy Counties Soil Survey.
- National wetlands inventory map(s). Cite name: Omaha North.
- State/Local wetland inventory map(s): Olsson Associates Delineation.
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): NAIP 2009 Color Orthophoto.
or Other (Name & Date): Google Earth 3-2-1990; 4-15-1993; 4-3-1999; 4-13-2003; 6-24-2003; 12-31-2002;
4-3-2004; 2-16-2005; 4-16-2005; 6-28-2005; 7-6-2006; 10-28-2006; 6-14-2007; 7-8-2008; 6-21-2009; 6-28-2010; 9-28-2010;
12-31-2009; 7-17-2011; 8-11-2011; 3-7-2012 .
- Previous determination(s). File no. and date of response letter:NWO-2005-11292-WEH, 23 November 2005.
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): Site visit conducted on October 25, 2012 .

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Section B 3:

Wetland ID	Directly Abuts (Y/N)	Size in Acres
Wetland A	N	0.058
Wetland B	N	0.054
Wetland C	N	0.021
Wetland D	N	0.067
Wetland E	N	1.755
Wetland F	N	0.003
Wetland G	N	5.630
Wetland H	N	0.043
Wetland I	N	0.440
Wetland J	N	0.100
Wetland K	N	0.170

The site was originally one depressional area within the historic Missouri River floodplain and contained 12.25 acres of wetlands according to USFWS National Wetlands Inventory. The site has been dissected by a man-made berm and tree removal has taken place. The site now contains 8.341 acres of a combination of PEMA/C and PFOA wetlands. The northern part of the basin (Pershing Basin) drains into a stormwater pipe that flows to the Minne Lusa Drainage, which discharges into the Missouri River, and contains 6.441 acres of wetlands. The southern basin (Storz Basin) is completely surrounded by a 10 to 15-foot berm. The basin contains 1.9 acres of wetland and one concrete-lined, man-made channel that routes stormwater into an underground pipe to a lift station, then into the Missouri River.

Attachments:

- 2012-02129-Delineated_Wetlands.pdf shows the locations and sizes of the delineated wetlands.
- 2012-02129-Doutlas-City_of_Omaha_Detention.jpg identifies locations of basins, wetlands, channels, and pipes.
- 2012-02129-NWI.jpg depicts the US Fish and Wildlife Service National Wetlands Inventory.