SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 06-Nov-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00031-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

<table>
<thead>
<tr>
<th>State</th>
<th>IL - Illinois</th>
</tr>
</thead>
<tbody>
<tr>
<td>County/parish/borough</td>
<td>Lake</td>
</tr>
<tr>
<td>City</td>
<td></td>
</tr>
<tr>
<td>Lat</td>
<td>42.35423</td>
</tr>
<tr>
<td>Long</td>
<td>-87.8791</td>
</tr>
<tr>
<td>Universal Transverse Mercator</td>
<td>Folder UTM List</td>
</tr>
<tr>
<td></td>
<td>UTM list determined by folder location</td>
</tr>
<tr>
<td></td>
<td>• NAD83 / UTM zone 38S</td>
</tr>
<tr>
<td></td>
<td>Waters UTM List</td>
</tr>
<tr>
<td></td>
<td>UTM list determined by waters location</td>
</tr>
<tr>
<td></td>
<td>• NAD83 / UTM zone 38S</td>
</tr>
</tbody>
</table>

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW):

Name of watershed or Hydrologic Unit Code (HUC):

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 the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 22-Dec-2009
Field Determination Date(s): 17-Dec-2009

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There [ ] "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

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:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There [ ] "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.
   a. Indicate presence of waters of U.S. in review area:

<table>
<thead>
<tr>
<th>Water Name</th>
<th>Water Type(s) Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>Wetland A</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
</tr>
</tbody>
</table>

b. Identify (estimate) size of waters of the U.S. in the review area:
   Area:  (m²)
   Linear: (m)

c. Limits (boundaries) of jurisdiction:
   based on:  []
   OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:
   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

1. TNW
   Not Applicable.

2. Wetland Adjacent to TNW
   Not Applicable.

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

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

   (i) General Area Conditions:
   Watershed size:  []
   Drainage area:  []
   Average annual rainfall:  inches
   Average annual snowfall:  inches

   (ii) Physical Characteristics
   (a) Relationship with TNW:
   Tributary flows directly into TNW.
   Tributary flows through [] tributaries before entering TNW.
   Number of tributaries
   Project waters are [] river miles from TNW.
   Project waters are [] river miles from RPW.
   Project Waters are [] aerial (straight) miles from TNW.
   Project waters are [] aerial(straight) miles from RPW.
   Project waters cross or serve as state boundaries.
   Explain:
   Identify flow route to TNW:

   Tributary Stream Order, if known:
   Order  Tributary Name
   2       WOUS 1

   (b) General Tributary Characteristics:
   Tributary is:
   Tributary Name  Natural  Artificial  Explain  Manipulated  Explain
   WOUS 1  X  -  -  -  -

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

**Tributary Name** | **Width (ft)** | **Depth (ft)** | **Side Slopes**
---|---|---|---
WOUS 1 | 3 | 1 | 2:1

**Primary tributary substrate composition:**

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Silt</th>
<th>Sands</th>
<th>Concrete</th>
<th>Cobble</th>
<th>Gravel</th>
<th>Muck</th>
<th>Bedrock</th>
<th>Vegetation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Tributary (conditions, stability, presence, geometry, gradient):**

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Condition/Stability</th>
<th>Runoff/Riffle/Pool Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>Somewhat eroded and cut water conveyance created from storm pipe outfall leading to wetland.</td>
<td>Absent</td>
<td>Relatively straight</td>
<td>1</td>
</tr>
</tbody>
</table>

(c) **Flow:**

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Provides for</th>
<th>Events Per Year</th>
<th>Flow Regime</th>
<th>Duration &amp; Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>Perennial flow</td>
<td>20 (or greater)</td>
<td>Small flow most days, stronger flows during storm events.</td>
<td>-</td>
</tr>
</tbody>
</table>

**Surface Flow is:**

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Surface Flow</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>Discrete and confined</td>
<td>Narrow short channel that conveys flow to wetland.</td>
</tr>
</tbody>
</table>

**Subsurface Flow:**

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (or other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Tributary has:**

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Bed &amp; Banks</th>
<th>OHWM</th>
<th>OHWM^2</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

**High Tide Line indicated by:**

Not Applicable

**Mean High Water Mark indicated by:**

Not Applicable

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Explain</th>
<th>Identify specific pollutants, if known</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>Water is cloudy and oily. Parking lot run-off containing oils, salt and sediment.</td>
<td>-</td>
</tr>
</tbody>
</table>

(iv) **Biological Characteristics. Channel supports:**

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Riparian Corridor Characteristics</th>
<th>Wetland Fringe Characteristics</th>
<th>Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

(i) **Physical Characteristics:**

(a) **General Wetland Characteristics:**
**Properties:**

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Size (Acres)</th>
<th>Wetland Type</th>
<th>Wetland Quality</th>
<th>Cross or Serve as State Boundaries. Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>.96</td>
<td>Emergent</td>
<td>Moderate to low, with non-natives.</td>
<td></td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>14.65</td>
<td>Emergent</td>
<td>Moderate</td>
<td></td>
</tr>
</tbody>
</table>

**(b) General Flow Relationship with Non-TNW:**

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>Intermittent flow</td>
<td>-</td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>Perennial flow</td>
<td>-</td>
</tr>
</tbody>
</table>

**Surface flow is:**

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>Overland sheetflow</td>
<td>Relatively flat wetland conveys water via outlet into channel.</td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>Overland sheetflow</td>
<td>Headwater wetland receiving water from surrounding landscape and other wetlands.</td>
</tr>
</tbody>
</table>

**Subsurface flow:**

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (or other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**(c) Wetland Adjacency Determination with Non-TNW:**

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Directly Abutting</th>
<th>Discrete Wetland Hydrologic Connection</th>
<th>Ecological Connection</th>
<th>Separated by Berm/Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**(d) Proximity (Relationship) to TNW:**

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>River Miles From TNW</th>
<th>Aerial Miles From TNW</th>
<th>Flow Direction</th>
<th>Within Floodplain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>20-25</td>
<td>15-20</td>
<td>Wetland to navigable waters</td>
<td>50 - 100-year</td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>20-25</td>
<td>15-20</td>
<td>Wetland to navigable waters</td>
<td>2 year or less</td>
</tr>
</tbody>
</table>

**(ii) Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>Parking lot oil, salt and sediment.</td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>Sediment and salt.</td>
</tr>
</tbody>
</table>

**(iii) Biological Characteristics. Wetland supports:**

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Riparian Buffer</th>
<th>Characteristics</th>
<th>Vegetation</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>Large emergent wetland with open water for waterfowl.</td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

All wetlands being considered in the cumulative analysis:

Not Applicable.
Summarize overall biological, chemical and physical functions being performed:
Not Applicable.

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.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:
Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>PERENNIAL</td>
<td>This area transports water from off-site drainage pipes and Wetland A.</td>
</tr>
</tbody>
</table>

Provide estimates for jurisdictional waters in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOUS 1</td>
<td>Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
<td>45.72</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>45.72</td>
<td>0</td>
</tr>
</tbody>
</table>

3. Non-RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>SEASONAL</td>
<td>Wetland drains into WOUS 1 during high rain and snow melt events; stores and trickles out over time.</td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>PERENNIAL</td>
<td>Large headwater wetland produces year-round flow.</td>
</tr>
</tbody>
</table>

Provide acreage estimates for jurisdictional wetlands in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>5684.98176</td>
</tr>
<tr>
<td>Wetland G (Headwater Wetland)</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>59296.4404</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0</td>
<td>63171.42216</td>
</tr>
</tbody>
</table>

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:
Not Applicable.

7. Impoundments of jurisdictional waters.\(^9\)
Not Applicable.

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.\(^10\)
Not Applicable.

Identify water body and summarize rationale supporting determination:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS

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):

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:
Not Applicable.

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.
Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD
(listed items shall be included in case file and, where checked and requested, appropriately reference below):

<table>
<thead>
<tr>
<th>Data Reviewed</th>
<th>Source Label</th>
<th>Source Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Data sheets prepared/submitted by or on behalf of the applicant/consultant</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Office concurs with data sheets/delineation report</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>U.S. Geological Survey Hydrologic Atlas</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>U.S. Geological Survey map(s)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>USDA Natural Resources Conservation Service Soil Survey</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>National wetlands inventory map(s)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>State/local wetland inventory map(s)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FEMA/FIRM maps</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Photographs</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Aerial</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Applicable/supporting case law</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other information</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description
Site visit on Dec. 17, 2009 with wetland consultant confirmed findings in report.

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.
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.
6. A 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.
7. Ibid
8. See Footnote #3.
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.

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): June 1, 2009
B. PROJECT OFFICE, FILE NAME, AND NUMBER: Chicago District, Elgin Sports Complex LRC -2009-299
C. PROJECT LOCATION AND BACKGROUND INFORMATION: Elgin Sports Complex
   State: Illinois  County/parish/borough: Kane  City: Elgin
   Center coordinates of site (lat/long in degree decimal format): Lat. 42.01987°N, Long. 88.29718°W.
   Universal Transverse Mercator: NAD 83
   Name of nearest waterbody: Tributary of the Fox River
   Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Fox River
   Name of watershed or Hydrologic Unit Code (HUC): Lower Fox (07120007)
   ☑ 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: 10/03/2008
   ☑ Field Determination. Date(s): 10/03/2008

SECTION II: SUMMARY OF FINDINGS
A. RHA SECTION 10 DETERMINATION OF JURISDICTION.
   There are no "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.

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.
   There 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): 1
         □ TNWs, including territorial seas
         □ Wetlands adjacent to TNWs
         □ Relatively permanent waters 2 (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: linear feet: width (ft) and/or acres.
         Wetlands: 2.37 acres.
      c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual
         Elevation of established OHWM (if known): unknown.
   2. 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: 

---
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.
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: Pick List.


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 waterbody\(^4\) 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: inches
   Average annual snowfall: inches

   (ii) Physical Characteristics:
       (a) Relationship with TNW:
           - Tributary flows directly into TNW.
           - Tributary flows through Pick List 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 TNW\(^5\): .
           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 Characteristics (check all that apply):

Tributary is:
- [ ] Natural
- [ ] Artificial (man-made). Explain:
- [ ] Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
- Average width: feet
- Average depth: feet
- Average side slopes: Pick List.

Primary tributary substrate composition (check all that apply):
- [ ] Silts
- [ ] Sands
- [ ] Concrete
- [ ] Cobble
- [ ] Gravel
- [ ] Muck
- [ ] Bedrock
- [ ] Vegetation. Type/percent cover:
- [ ] Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:
Tributary geometry: Pick List
Tributary gradient (approximate average slope): \%

(c) Flow:
Tributary provides for: Pick List
Estimate average number of flow events in review area/year: Pick List
Describe flow regime:
Other information on duration and volume:

Surface flow is: Pick List. Characteristics:

Subsurface flow, Pick List. Explain findings:
- [ ] Dye (or other) test performed:

Tributary has (check all that apply):
- [ ] Bed and banks
- [ ] OHWM\(^6\) (check all indicators that apply):
  - [ ] clear, natural line impressed on the bank
  - [ ] changes in the character of soil
  - [ ] shelving
  - [ ] vegetation matted down, bent, or absent
  - [ ] leaf litter disturbed or washed away
  - [ ] sediment deposition
  - [ ] water staining
  - [ ] 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):
- [ ] Local Tide Line indicated by:
- [ ] Mean High Water Mark indicated by:
  - [ ] oil or scum line along shore objects
  - [ ] fine shell or debris deposits (foreshore)
  - [ ] physical markings/characteristics
  - [ ] tidal gauges
  - [ ] other (list):

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Identify specific pollutants, if known:

\(^6\)A 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.

\(^7\)Ibid.
(iv) Biological Characteristics. Channel supports (check all that apply):

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
  - Federally Listed species. Explain findings:
  - Fish/spawn areas. Explain findings:
  - Other environmentally-sensitive species. Explain findings:
  - Aquatic/wildlife diversity. Explain findings:

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: 2.37 acres
  - Wetland type. Explain: Shallow marsh and wet to wet-mesic lowland hardwoods; disturbed fresh wet meadow.
  - Wetland quality. Explain: Low Vegetative Quality (FQI of 14.08 and 7.27).

- Project wetlands cross or serve as state boundaries. Explain: Not Applicable.

(b) General Flow Relationship with Non-TNW:

- Flow is: Perennial flow. Explain: The western-most wetland (Soil Sample #3 wetland) drains to a golf course detention basin, then to another wetland detention basin, flow into wetlands and a stream that is tributary to the Fox River. Stormwater collects in the wetland/north-south swale (Soil Sample #1 wetland), flows via a 36-inch culvert to the eastern-most wetland (Soil Sample #4 wetland), to storm sewer, and discharges to the Fox River.

- Surface flow is: Discrete and confined
  - Characteristics: Overland sheet flow to wetlands, to concentrated ponds, to channel or storm sewer, to Fox River.

- Subsurface flow: Unknown. Explain findings:
  - Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- Directly abutting
- Not directly abutting

- Discrete wetland hydrologic connection. Explain: Central wetlands (Soil Sample #1 wetland) connected to eastern wetlands (Soil Sample #4 wetland) and Fox River via storm sewer.

- Ecological connection. Explain: Western wetlands (Soil Sample #3 wetland) connected to additional wetlands, stream, and Fox River.

- Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

- Project wetlands are 1-2 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 500-year or greater 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: water is clear.

- Identify specific pollutants, if known: Unknown.

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

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain: Shallow marsh and wet to wet-mesic lowland hardwoods; disturbed fresh wet meadow.

- Habitat for:
  - Federally Listed species. Explain findings:
  - Fish/spawn areas. Explain findings:
  - Other environmentally-sensitive species. Explain findings:
  - Aquatic/wildlife diversity. Explain findings:

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

- All wetland(s) being considered in the cumulative analysis: 3

- Approximate() (2.37) acres in total are being considered in the cumulative analysis.
For each wetland, specify the following:

<table>
<thead>
<tr>
<th>Name/ID</th>
<th>Directly abuts? (Y/N)</th>
<th>Size (in acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>western wetland</td>
<td>N</td>
<td>0.27</td>
</tr>
<tr>
<td>central wetland</td>
<td>N</td>
<td>1.41</td>
</tr>
<tr>
<td>eastern wetland</td>
<td>N</td>
<td>0.69</td>
</tr>
</tbody>
</table>

Summarize overall biological, chemical and physical functions being performed:

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:

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: Applies to western wetland (Soil Sample #3 wetland). National Weather Service Climate Data - 05/27/2009 Chicago-O'Hare Report attached. USGS precipitation data attached (May 2008 to May 2009).
   - 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: Applies to central wetlands (Soil Sample #1 wetland) and eastern wetlands (Soil Sample #4 wetland). National Weather Service Climate Data -05/27/2009 Chicago-O'Hare Report attached. USGS precipitation data attached (May 2008 to May 2009).
Provide estimates for jurisdictional waters in the review area (check all that apply):
- Tributary waters: 1500 linear feet 6 width (ft).
- Other non-wetland waters: acres.
Identify type(s) of waters:

3. Non-RPWs 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 abutting an 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: Wetland Delineation Report showing wetland boundaries and the proximity of the Fox River is enclosed. A Delineated Wetland Boundary exhibit is enclosed.

Provide acreage estimates for jurisdictional wetlands in the review area: 2.37 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: 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.
- 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:

---

8See Footnote # 3.
9To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
10Prior 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.
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: Surveyed Wetland Boundary.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
- Office concur/s with data sheets/delineation report.
- Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: 
- Corps navigable waters’ study: 
- USGS NHD data.
- USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 
- National wetlands inventory map(s). Cite name: US Fish & Wildlife Service--Wetlands Online Mapper.
- State/Local wetlands inventory map(s): Kane County ADID, Pick List.
- FEMA/FIRM maps: FIRM 17089C0168F.
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Kane County Aerial Photograph, 2007.
- or Other (Name & Date): Site Photographs, 10/03/2008.
- Previous determination(s). File no. and date of response letter: 
- Applicable/supporting scientific literature: 

B. ADDITIONAL COMMENTS TO SUPPORT JD: 

7
APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 28-Dec-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2010-00011-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: Will
City:
Lat: 41.6084
Long: -88.2097
Universal Transverse Mercator: Folder UTM List

Name of nearest waterbody:
Name of nearest Traditional Navigable Water (TNW):
Name of watershed or Hydrologic Unit Code (HUC):

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 the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 11-Jan-2010
Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There [ ] "Navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

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:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There [ ] "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.
   a. Indicate presence of waters of U.S. in review area:

      Water Name          Water Type(s) Present
      DuPage River       Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs

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

      Area: (m²)
      Linear: (m)

1/11/2010
c. Limits (boundaries) of jurisdiction:
   based on:  
   OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:3
   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

1. TNW
   Not Applicable.

2. Wetland Adjacent to TNW
   Not Applicable.

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

1. Characteristics of non-TNWs that flow directly or indirectly into TNW
   (i) General Area Conditions:
      Watershed size:  
      Drainage area:  
      Average annual rainfall:  inches
      Average annual snowfall:  inches

   (ii) Physical Characteristics
      (a) Relationship with TNW:
         Tributary flows directly into TNW.
         Tributary flows through [ ] tributaries before entering TNW.

         Number of tributaries

         Project waters are  [ ] river miles from TNW.
         Project waters are  [ ] river miles from RPW.
         Project Waters are  [ ] aerial (straight) miles from TNW.
         Project waters are  [ ] aerial (straight) miles from RPW.

         Project waters cross or serve as state boundaries.

   Explain:
   Identify flow route to TNW:5

   Tributary Stream Order, if known:
   Order  Tributary Name
   1    DuPage River

   (b) General Tributary Characteristics:
   Tributary is:
   Tributary Name  Natural  Artificial  Explain  Manipulated  Explain
   DuPage River  X

   Tributary properties with respect to top of bank (estimate):
   Tributary Name  Width (ft)  Depth (ft)  Side Slopes
   DuPage River  100  10  3:1

Primary tributary substrate composition:

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<thead>
<tr>
<th>Tributary Name</th>
<th>Silt</th>
<th>Sands</th>
<th>Concrete</th>
<th>Cobble</th>
<th>Gravel</th>
<th>Muck</th>
<th>Bedrock</th>
<th>Vegetation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuPage River</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Tributary (conditions, stability, presence, geometry, gradient):

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Condition/Status</th>
<th>Run RIffle/Pool Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuPage River</td>
<td>Tributary is relatively stable</td>
<td>None in the immediate area.</td>
<td>Relatively straight</td>
<td>-</td>
</tr>
</tbody>
</table>

(c) Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Provides for</th>
<th>Events Per Year</th>
<th>Flow Regime</th>
<th>Duration &amp; Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuPage River</td>
<td>Perennial flow</td>
<td>20 (or greater)</td>
<td>River flows year-round</td>
<td>-</td>
</tr>
</tbody>
</table>

Surface Flow is:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Surface Flow</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuPage River</td>
<td>Discrete and confined</td>
<td>Defined bed and banks.</td>
</tr>
</tbody>
</table>

Subsurface Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (or other) Test</th>
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</thead>
<tbody>
<tr>
<td>DuPage River</td>
<td>Unknown</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

Tributary has:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Bed &amp; Banks</th>
<th>OHWM</th>
<th>Discontinuous OHWM?</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuPage River</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuPage River</td>
<td>Tributary is typical for the highly developed urban area, so is discolored and will occasionally have an oily sheen.</td>
</tr>
</tbody>
</table>

Identify specific pollutants, if known
Road salts, grease, oil; sediment, lawn chemicals.

(iv) Biological Characteristics. Channel supports:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Riparian Corridor Characteristics</th>
<th>Wetland Fringe Characteristics</th>
<th>Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuPage River</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

(l) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Not Applicable.

(b) General Flow Relationship with Non-TNW:
Flow is:
Not Applicable.

Surface flow is:
Not Applicable.

Subsurface flow:
Not Applicable.

(c) Wetland Adjacency Determination with Non-TNW:
Not Applicable.

(d) Proximity (Relationship) to TNW:
Not Applicable.

(ii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Not Applicable.

(iii) Biological Characteristics. Wetland supports:
Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):
All wetlands being considered in the cumulative analysis:
Not Applicable.

Summarize overall biological, chemical and physical functions being performed:
Not Applicable.

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.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:
Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuPage River</td>
<td>PERENNIAL</td>
<td>The DuPage River is a large river that flows year-round.</td>
</tr>
</tbody>
</table>

Provide estimates for jurisdictional waters in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuPage River</td>
<td>Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
<td>15.24</td>
<td>-</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>15.24</td>
<td>0</td>
</tr>
</tbody>
</table>

3. Non-RPWs that flow directly or indirectly into TNWs:

https://orm.usace.army.mil/orm2/?p=106:34:1804781730396311::NO::

1/11/2010
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:
Not Applicable.

7. Impoundments of jurisdictional waters:
Not Applicable.

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:
Not Applicable.

Identify water body and summarize rationale supporting determination:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

F. NON-JURISDICTIONAL WATERS INCLUDING WETLANDS

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):

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:
Not Applicable.

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.
Not Applicable.

SECTION IV: DATA SOURCES.
A. SUPPORTING DATA. Data reviewed for JD
(listed items shall be included in case file and, where checked and requested, appropriately reference below):

<table>
<thead>
<tr>
<th>Data Reviewed</th>
<th>Source Label</th>
<th>Source Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Data sheets prepared/submitted by or on behalf of the applicant/consultant</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Office concurs with data sheets/delineation report</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>U.S. Geological Survey Hydrologic Atlas</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>USGS 8 and 12 digit HUC maps</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>U.S. Geological Survey map(s)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>FEMA/FIRM maps</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Photographs</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Aerial</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Applicable/supporting case law</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Other information</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

B. ADDITIONAL COMMENTS TO SUPPORT JD:
Description

The DuPage River is a known RPW in the region; also, I have been to this area for past investigations.

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.
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.
6. A 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.
7. Ibid.
8. See Footnote #3.
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.
SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 19-Oct-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00595-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: DuPage
City: 
Lat: 41.86771
Long: -88.16116

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 11-Dec-2009
Field Determination Date(s): 08-Dec-2009

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There [ ] "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

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:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There [ ] "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.
   a. Indicate presence of waters of U.S. in review area:

<table>
<thead>
<tr>
<th>Water Name</th>
<th>Water Type(s) Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
</tr>
</tbody>
</table>

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

   Area: (in²)
   Linear: (in)

   c. Limits (boundaries) of jurisdiction:

   based on: [ ]
   OWRM Elevation: (if known)

2. Non-regulated waters/wetlands:

   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

1. TNW
   Not Applicable.

2. Wetland Adjacent to TNW
   Not Applicable.

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

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

   (i) General Area Conditions:
   Watershed size: [ ]
   Drainage area: [ ]
   Average annual rainfall: inches
   Average annual snowfall: inches

   (ii) Physical Characteristics
   Relationship with TNW:
   [ ] Tributary flows directly into TNW.
   [ ] Tributary flows through [ ] tributaries before entering TNW.
   Number of tributaries
   Project waters are [ ] river miles from TNW.
   Project waters are [ ] river miles from RPW.
   Project Waters are [ ] aerial (straight) miles from TNW.
Project waters are [ ] aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:

<table>
<thead>
<tr>
<th>Order</th>
<th>Tributary Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Winfield Creek</td>
</tr>
</tbody>
</table>

(b) General Tributary Characteristics:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Natural</th>
<th>Artificial</th>
<th>Explain</th>
<th>Manipulated</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Width (ft)</th>
<th>Depth (ft)</th>
<th>Side Slopes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>15</td>
<td>3</td>
<td>3:1</td>
</tr>
</tbody>
</table>

Primary tributary substrate composition:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Silt</th>
<th>Sands</th>
<th>Concrete</th>
<th>Cobble</th>
<th>Gravel</th>
<th>Muck</th>
<th>Bedrock</th>
<th>Vegetation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

Other Explained:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Other Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>Unknown, could not see bottom.</td>
</tr>
</tbody>
</table>

Tributary (conditions, stability, presence, geometry, gradient):

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Condition/Stability</th>
<th>Run/Reef/Poo Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>Stable, with herbs, trees and shrubs along the bank.</td>
<td>Absent in this stretch.</td>
<td>Relatively straight</td>
<td>1</td>
</tr>
</tbody>
</table>

(c) Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Provides for</th>
<th>Events Per Year</th>
<th>Flow Regime</th>
<th>Duration &amp; Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>Perennial flow</td>
<td>20 (or greater)</td>
<td>Creek flows year-round.</td>
<td>-</td>
</tr>
</tbody>
</table>

Surface Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Surface Flow Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>Discrete and confined Creek flows in defined banks.</td>
</tr>
</tbody>
</table>

Subsurface Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (or other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Tributary has:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Bed &amp; Banks</th>
<th>OHWM</th>
<th>Discontinuous OHWM?</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Tributaries with OHWM:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>OHWM</th>
<th>Clear</th>
<th>Litter</th>
<th>Changes in Soil</th>
<th>Destruction Vegetation</th>
<th>Shelving</th>
<th>Wrack Line</th>
<th>Matted/Absent Vegetation</th>
<th>Sediment Sorting</th>
<th>Leaf Litter</th>
<th>scour</th>
<th>Sediment Deposition</th>
<th>Flow Events</th>
<th>Water Staining</th>
<th>Changes Plant</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

<table>
<thead>
<tr>
<th>High Tide Line indicated by:</th>
<th>Not Applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean High Water Mark indicated by:</td>
<td>Not Applicable.</td>
</tr>
</tbody>
</table>

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Explain Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>Water color is cloudy. Sediment</td>
</tr>
</tbody>
</table>

(iv) Biological Characteristics. Channel supports:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Riparian Corridor Characteristics</th>
<th>Wetland Fringe Characteristics</th>
<th>Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>X 25 foot vegetated corridor</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Not Applicable.

(b) General Flow Relationship with Non-TNW:
Flow is:
Not Applicable.

Surface flow is:
Not Applicable.

Subsurface flow:
Not Applicable.

c) Wetland Adjacency Determination with Non-TNW:
Not Applicable.

d) Proximity (Relationship) to TNW:
Not Applicable.

(ii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Not Applicable.

(iii) Biological Characteristics. Wetland supports:
Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):
All wetlands being considered in the cumulative analysis:
Not Applicable.

Summarize overall biological, chemical and physical functions being performed:
Not Applicable.

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.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:
Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>PERENNIAL</td>
<td>Strong flowing creek shows up in multiple aerials.</td>
</tr>
</tbody>
</table>

Provide estimates for jurisdictional waters in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winfield Creek</td>
<td>Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
<td>30.48</td>
<td>-</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>30.48</td>
<td>0</td>
</tr>
</tbody>
</table>

3. Non-RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:
Not Applicable.

7. Impoundments of jurisdictional waters:
Not Applicable.

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:
Not Applicable.

Identify water body and summarize rationale supporting determination:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

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):

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:

Not Applicable.

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.

Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD

<table>
<thead>
<tr>
<th>Data Reviewed</th>
<th>Source Label</th>
<th>Source Description</th>
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</thead>
<tbody>
<tr>
<td>Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Data sheets prepared/submitted by or on behalf of the applicant/consultant</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Office concurs with data sheets/delineation report</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>U.S. Geological Survey Hydrologic Atlas</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>U.S. Geological Survey map(s)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>USDA Natural Resources Conservation Service Soil Survey</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>National wetlands inventory map(s)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>State/Local wetland inventory map(s)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FEMA/FIRM maps</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Photographs</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Aerial</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other information</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Site visit to confirm flow on 08 Dec 2009.

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" (i.e., typically 3 months).
3. Supporting documentation is presented in Section III.F.
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.
6. A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (i.e., 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.
7. Ibid.
8. See Footnote #3.
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 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.
SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 12-Jan-2010

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00607-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: McHenry
City: Chemung Township
Lat: 42.4658
Long: -88.65735

Universal Transverse Mercator

Folder UTM List
- UTM list determined by folder location
  - NAD83 / UTM zone 38S

Waters UTM List
- UTM list determined by waters location
  - NAD83 / UTM zone 38S

Name of nearest waterbody: Piscasaw Creek
Name of nearest Traditional Navigable Water (TNW): Rock River
Name of watershed or Hydrologic Unit Code (HUC): Piscasaw

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 the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 12-Jan-2010
Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There [ ] "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

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:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There [ ] "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.
   a. Indicate presence of waters of U.S. in review area:

<table>
<thead>
<tr>
<th>Water Name</th>
<th>Water Type(s) Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek</td>
<td>Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 3</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 4</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
</tr>
</tbody>
</table>

b. Identify (estimate) size of waters of the U.S. in the review area:
   Area: (m²)
   Linear: (m)

c. Limits (boundaries) of jurisdiction:
   OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:
   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

1. TNW
   Not Applicable.

2. Wetland Adjacent to TNW
   Not Applicable.

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

1. Characteristics of non-TNWs that flow directly or indirectly into TNW
   (i) General Area Conditions:
      Watershed size: 
      Drainage area: 
      Average annual rainfall: inches
      Average annual snowfall: inches

   (ii) Physical Characteristics
      (a) Relationship with TNW:
         Tributary flows directly into TNW.
         Tributary flows through [ ] tributaries before entering TNW.
         Number of tributaries
         Project waters are [ ] river miles from TNW.
         Project waters are [ ] river miles from RPW.
         Project Waters are [ ] aerial (straight) miles from TNW.
         Project waters are [ ] aerial (straight) miles from RPW.
         Project waters cross or serve as state boundaries.
         Explain:
         Identify flow route to TNW:

      Tributary Stream Order, if known:
      Order  
      Tributary Name
      -  LRC-2009-00607 Piscasaw Creek

   (b) General Tributary Characteristics:
      Tributary is:
      | Tributary Name | Natural | Artificial | Explain | Manipulated | Explain |
      |----------------|---------|------------|---------|-------------|---------|
      | LRC-2009-00607 Piscasaw Creek | -       | -          | -       | X           | The creek has been straightened |

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

Tributary Name | Width (ft) | Depth (ft) | Side Slopes
--- | --- | --- | ---
LRC-2009-00607 Piscasaw Creek | 35 | 3 | 4.1 (or greater)

Primary tributary substrate composition:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Silt</th>
<th>Sands</th>
<th>Concrete</th>
<th>Cobble</th>
<th>Gravel</th>
<th>Muck</th>
<th>Bedrock</th>
<th>Vegetation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Tributary (conditions, stability, presence, geometry, gradient):

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Condition/Stability</th>
<th>Run/Riffle/Pool Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek</td>
<td>Stable</td>
<td>-</td>
<td>Relatively straight</td>
<td>-</td>
</tr>
</tbody>
</table>

(c) Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Provides for</th>
<th>Events Per Year</th>
<th>Flow Regime</th>
<th>Duration &amp; Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek</td>
<td>Perennial flow</td>
<td>-</td>
<td>Continuous flow stream</td>
<td>-</td>
</tr>
</tbody>
</table>

Surface Flow is:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Surface Flow</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek</td>
<td>Discrete and confined</td>
<td>-</td>
</tr>
</tbody>
</table>

Subsurface Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (or other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Tributary has:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Bed &amp; Banks</th>
<th>OHWM</th>
<th>Discontinuous OHWM?</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Explain</th>
<th>Identify specific pollutants, if known</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek</td>
<td>clear</td>
<td>-</td>
</tr>
</tbody>
</table>

(iv) Biological Characteristics. Channel supports:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Riparian Corridor Characteristics</th>
<th>Wetland Fringe Characteristics</th>
<th>Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek</td>
<td>X</td>
<td>X</td>
<td>-</td>
</tr>
</tbody>
</table>

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

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Size (Acres)</th>
<th>Wetland Type</th>
<th>Wetland Quality</th>
<th>Cross or Serve as State Boundaries: Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>0.27</td>
<td>Emergent</td>
<td>FQI 12.3</td>
<td></td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>0.03</td>
<td>Emergent</td>
<td>13.3</td>
<td></td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 3</td>
<td>0.05</td>
<td>Emergent fringe</td>
<td>FQI 13.3</td>
<td></td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 4</td>
<td>0.92</td>
<td>Emergent fringe</td>
<td>FQI 13.3</td>
<td></td>
</tr>
</tbody>
</table>

(b) General Flow Relationship with Non-TNW:
Flow is:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>Perennial flow</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>Perennial flow</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 3</td>
<td>Perennial flow</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 4</td>
<td>Perennial flow</td>
<td>-</td>
</tr>
</tbody>
</table>

Surface flow is:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>Discrete and confined</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>Discrete and confined</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 4</td>
<td>Discrete and confined</td>
<td>-</td>
</tr>
</tbody>
</table>

Subsurface flow:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (or other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 3</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 4</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(c) Wetland Adjacency Determination with Non-TNW:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Directly Abutting</th>
<th>Discrete Wetland Hydrologic Connection</th>
<th>Ecological Connection</th>
<th>Separated by Berm/Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 3</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 4</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(d) Proximity (Relationship) to TNW:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>River Miles From TNW</th>
<th>Aerial Miles From TNW</th>
<th>Flow Direction</th>
<th>Within Floodplain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>30 (or more)</td>
<td>30 (or more)</td>
<td>Wetland to navigable waters</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>30 (or more)</td>
<td>30 (or more)</td>
<td>Wetland to navigable waters</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 3</td>
<td>30 (or more)</td>
<td>30 (or more)</td>
<td>Wetland to navigable waters</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 4</td>
<td>30 (or more)</td>
<td>30 (or more)</td>
<td>Wetland to navigable waters</td>
<td>-</td>
</tr>
</tbody>
</table>

(ii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Explain</th>
<th>Identify specific pollutants, if known</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 4</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
(iii) Biological Characteristics. Wetland supports:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Riparian Buffer</th>
<th>Characteristics</th>
<th>Vegetation</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 3</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 4</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

All wetlands being considered in the cumulative analysis:
Not Applicable.

Summarize overall biological, chemical and physical functions being performed:
Not Applicable.

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.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:
Not Applicable

2. RPWs that flow directly or indirectly into TNWs:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek</td>
<td>PERENNIAL</td>
<td>Solid line or USGS</td>
</tr>
</tbody>
</table>

Provide estimates for jurisdictional waters in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Piscasaw Creek Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
<td></td>
<td>319.731624</td>
<td></td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>319.701624</td>
<td></td>
</tr>
</tbody>
</table>

3. Non-RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>PERENNIAL</td>
<td>Wetlands directly abutting RPW</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>PERENNIAL</td>
<td>Flow from the north side of Lawrence Road along Wetland 1 discharges to the south and into the drainage ditch identified as wetland 2. Wetland 2 is an emergent wetland swale that takes water from wetland 1 and discharges back into Piscasaw Creek approximately 1800 feet downstream.</td>
</tr>
<tr>
<td>LRC-2009-00607</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Provide acreage estimates for jurisdictional wetlands in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-00607 Wetland 1</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>072.41684</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 2</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>137.593104</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 3</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>190.202232</td>
</tr>
<tr>
<td>LRC-2009-00607 Wetland 4</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>72.843408</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>0</strong></td>
<td><strong>1473.05584</strong></td>
</tr>
</tbody>
</table>

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:
Not Applicable

Provide estimates for jurisdictional wetlands in the review area:
Not Applicable

7. Impoundments of jurisdictional waters: Not Applicable

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:
Not Applicable

Identify water body and summarize rationale supporting determination:
Not Applicable

Provide estimates for jurisdictional waters in the review area:
Not Applicable

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS

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):

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:
Not Applicable

https://orm.usace.army.mil/orm2/?p=106:34:3685847625020344::NO:: 1/12/2010
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.

Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD

(listed items shall be included in case file and, where checked and requested, appropriately reference below).

<table>
<thead>
<tr>
<th>Data Reviewed</th>
<th>Source Label</th>
<th>Source Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>--Maps, plans, plots or plat</td>
<td>Aerial Data</td>
<td>Delineated wetland boundary with data point</td>
</tr>
<tr>
<td>--Maps, plans, plots or plat</td>
<td>Points</td>
<td>Points from data point locations</td>
</tr>
<tr>
<td>--Data sheets prepared/</td>
<td>Photos</td>
<td>-</td>
</tr>
<tr>
<td>submitted by or on behalf of</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>the applicant/consultant</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>---Office concurs with data</td>
<td>Data sheets</td>
<td>-</td>
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<td>sheets/delineation report</td>
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<td>---U S. Geological Survey</td>
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<td>---Photographs</td>
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<td>-</td>
</tr>
<tr>
<td>---Aerial</td>
<td>1939 aerial</td>
<td>-</td>
</tr>
</tbody>
</table>

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable.

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.
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.
6. A 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.
7. Ibid.
8. See Footnote #3.
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 his 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.
APPROVED JURISDICATIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICATIONAL DETERMINATION (JDD): 08-Dec-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00009-JDD

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
   State: IL - Illinois
   County/parish/borough: WI
   City: 41.58998
   Lat: 87.95605
   Long: Universal Transverse Mercator
   UTM Lat determined by folder location
   UTM Lat determined by waters location
   NAD83 / UTM zone 37S
   Waters UTM Lat:
   UTM Lat determined by waters location
   NAD83 / UTM zone 37S

   Name of nearest waterbody:
   Name of nearest Traditional Navigable Water (TNW):
   Name of watershed or Hydrologic Unit Code (HUC):

   Check if map/drawings of review area and/or potential jurisdictional areas are available upon request.
   Check if other sites (e.g., offshore mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JDD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:
   Office Determination Date:
   Field Determination Date(s) 30-Jul-2009

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION
   There [ ] "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 328) in the review area.
   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:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION
   There [ ] "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.
   a. Indicate presence of waters of U.S. in review area:
      Water Name LRC-2009-008-Vol.1
      Water Type(s) Present Non-RPVs that flow directly or indirectly into TNW.

b. Identify (estimate) size of waters of the U.S. in the review area:
   Area: (sq ft)
   Linear: (m)

c. Limits (boundaries) of jurisdiction:
   based on: [ ]
   OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:
   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

1. TNW
   Not Applicable.

2. Wetland Adjacent to TNW
   Not Applicable.

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

1. Characteristics of non-TNWs that flow directly or indirectly into TNW
   (i) General Area Conditions:
      Watershed size: 51 acres
      Drainage area: 51 acres
      Average annual rainfall: 32 inches
      Average annual snowfall: 40 inches
(8) Physical Characteristics
(a) Relationship with TNW:

TrIBUTARY FLOWS DIRECLY INTO TNW
TrIBUTARY FLOWS THROUGH [ ] tributaries before entering TNW

Number of tributaries:

Project waters are 5-10 river miles from TNW.
Project waters are 1 (or less) river miles from TNW.
Project Waters are 2-5 aerial (straight) miles from TNW.
Project waters are 1 (or less) aerial (straight) miles from TNW.

Project waters cross or serve as state boundaries

Explain:

Identify flow route to TNW.
The stream flows into a tributary of the North Fork of the river, then into the North Fork branch, which flows to the I&M Canal before draining to the I&M Canal, a TNW.

TrIBUTARY STREAM ORDER: if known:

Order | Tributary Name
--- | ---
1 | LRC-2008-608 WL 1

(b) General Tributary Characteristics:

Tributary is:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Natural</th>
<th>Artificial</th>
<th>Explain</th>
<th>Manipulated</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2008-608 WL 1</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

TrIBUTARY PROPERTIES WITH RESPECT TO TOP OF BANK (ESTIMATES):

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Width (ft)</th>
<th>Depth (ft)</th>
<th>Side Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2008-608 WL 1</td>
<td>2</td>
<td>5</td>
<td>4 1/4 (or greater)</td>
</tr>
</tbody>
</table>

Primary tributary substrate composition:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Barren</th>
<th>Sand</th>
<th>Concrete</th>
<th>Cobble</th>
<th>Gravel</th>
<th>Muck</th>
<th>Bedrock</th>
<th>Vegetation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2008-608 WL 1</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Tributary (conditions, stability, presence, geometry, gradient):

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Condition/Stability</th>
<th>Run/Slide/Pool Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2008-608 WL 1</td>
<td>Stable</td>
<td>None</td>
<td>Meandering</td>
<td>2</td>
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</tbody>
</table>

(c) Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Provides for</th>
<th>Events Per Year</th>
<th>Flow Regime</th>
<th>Duration &amp; Volume</th>
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<tbody>
<tr>
<td>LRC-2008-608 WL 1</td>
<td>Intermittent but not seasonal flow</td>
<td>20 (or greater)</td>
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Surface Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Surface Flow Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2008-608 WL 1</td>
<td>Discerned</td>
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Subsurface Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Subsurface Flow Explain Findings</th>
<th>Dye (or other) Test</th>
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</thead>
<tbody>
<tr>
<td>LRC-2008-608 WL 1</td>
<td>Unknown</td>
<td>-</td>
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</tbody>
</table>

Tributary has:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Bed &amp; Banks</th>
<th>OHWM</th>
<th>Discontinuous OHWM</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2008-608 WL 1</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
</tbody>
</table>

Tributaries with OHWM (as indicated above):

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>OHWM</th>
<th>Clear</th>
<th>Litter</th>
<th>Changes in Soil</th>
<th>Destruction Vegetation</th>
<th>Shelving</th>
<th>Wrack Line</th>
<th>Matted/Absent Vegetation</th>
<th>Sediment Sorting</th>
<th>Leaf Litter</th>
<th>Scour</th>
<th>Sediment Deposition</th>
<th>Flow Events</th>
<th>Wet Stain</th>
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</thead>
<tbody>
<tr>
<td>LRC-2008-608 WL 1</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by:

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Tributary Name | Explain | Identify specific pollutants, if known |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2008-608 WL 1</td>
<td>Water color is clear and does not appear to be polluted nor oily. The watershed is agricultural.</td>
<td>-</td>
</tr>
</tbody>
</table>
2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Not Applicable
(b) General Flow Relationship with Non-TNW:
Flow is:
Not Applicable
Surface flow is:
Not Applicable
Subsurface flow:
Not Applicable
(c) Wetland Adjacency Determination with Non-TNW:
Not Applicable
(d) Proximity (Relationship) to TNW:
Not Applicable
(ii) Chemical Characteristics:
Characteristics of water (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.), Not Applicable
(iii) Biological Characteristics. Wetland supports:
Not Applicable

3. Characteristics of all wetlands adjacent to the tributary (if any):
All wetlands being considered in the cumulative analysis:
Not Applicable

Summary overall biological, chemical and physical functions being performed:
Not Applicable

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 sign 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 an 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 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 (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.

Findings for: LRC-2008-608 WL-1
Wetland 1 is a small wooded stream with associated wetlands that flow southeast into a tributary of Fratton Run Creek. Fratton Run Creek is an intermittent drainageway described on the USGS topographic of the drainageway averages 3 feet in width and its banks average 1-3 feet in height. Water depth has been observed at approximately 6" deep. The bed of the drainageway is silty material. The stream appears to have a shallow pool. Water flowing in the stream eventually flows to the I&M Canal via a tributary to North Fratton Creek, North Fratton Creek and Fratton Creek. Downstream from Wetland 1, apparent Tributary to North Fratton Creek has been graded. The hydrologic connection of Wetland 1 to the I&M Canal demonstrates the ability of the tributary to carry pollutants, flood waters, nutrients and organic matter. The presence of sedimentation, pollutants, flooding and nutrients, in addition to the habitat provided by the stream, provides a positive effect to the downstream relatively permanent waters and traditional navigable connections with other wetlands and tributaries, significantly affect the chemical, physical and biological integrity of the I&M Canal. Stormwater storage provided by Wetland 1 affects the frequency and extent flooding, which in turn impacts navigation, downstream bank erosion and sedimentation. The wetland and pollutant/tissue retention provided by the subject wetlands has a direct positive effect on the I&M Canal and aquatic food webs. According to the ION, the I&M Canal supports bass, crappies, bluegill, catfish and bullhead habitats. These factors contribute to the finding of a significant nexus between the Wetland

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:
Not Applicable

2. RPWs that flow directly or indirectly into TNWs:
Not Applicable

Provide estimates for jurisdictional waters in the review area:
Not Applicable

3. Non-RPWs that flow directly or indirectly into TNWs:
Not Applicable

Provide estimates for jurisdictional waters in the review area:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2008-608 WL-1</td>
<td>Non-RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>667.96552</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td></td>
<td>667.96552</td>
</tr>
</tbody>
</table>

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
Not Applicable

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable
Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TRWs:
Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:
Not Applicable.

7. Impoundments of jurisdictional waters:  
Not Applicable.

E. ISOLATED (INTERSTATE OR INTRA-STATE) WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, I WATERS:  
Not Applicable.

Identify water body and summarizer rationale supporting determination:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS

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):

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 or threatened species, irrigation agriculture), using best professional judgment:
Not Applicable.

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:
Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA, Data review/for vector JD
(Identify and include in this section, data collected or reviewed, any appropriate reference cited):

<table>
<thead>
<tr>
<th>Data Reviewed</th>
<th>Source Label</th>
<th>Source Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Mapp, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- Data sheets prepared/submitted by or on behalf of the applicant/consultant</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- Office concurs with data sheet/delineation report</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- U.S. Geological Survey Hydroligc Atlas</td>
<td>-</td>
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</tr>
<tr>
<td>- USGS 8 and 12 digit HUC maps</td>
<td>-</td>
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<tr>
<td>- U.S. Geological Survey maps</td>
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</tr>
<tr>
<td>- USDA Natural Resources Conservation Service Soil Survey</td>
<td>-</td>
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</tr>
<tr>
<td>- National wetlands inventory maps</td>
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<tr>
<td>- FEMA/FRM maps</td>
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<td>- Photographs</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- Aerial</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

B. ADDITIONAL COMMENTS TO SUPPORT JD:
Not Applicable.

5. Ditches checked below shall be supported by completing the appropriate sections in Section II below.
6. In certain instances, where a ditch is defined as a tributary that is not a TRW and that typically flows year round or is continuous flow at least “seasonally” (e.g., typically 3 months).
7. Identifying documentation is presented in Section III.F.
8. Note that the Institutional Guidance contains additional information regarding swales, ditches, washes, and seasonal features generally and in the west.
9. River route can be described by identifying, e.g., the river's source, which flows through the review area, to flow into tributary B, which then flows into TRW.
10. A natural or man-made tributary in the OWIM cannot necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OWIM has been removed by development or agricultural practices). Where there is a break in the waterbody's flow regime (e.g., flow over a weir, waterfall, or through a culvert), the applicant will look for indicators of flow above and below the break.
11. See footnote 3.
12. To complete the analysis refer to the key in Section II.D.8. Of the Institutional Guidance.
13. Prior to assessing or declaring OWIM jurisdiction based solely on this category, Corps USBT 3074 will initiate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPAs Memorandum Regarding OWIM Jurisdiction.

https://orm.usace.army.mil/orm2/?p=106:34:5652076202215504::NO::

1/7/2010
SECTION II: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JDD): 07-Dec-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00008-JD2

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: Will
City: 
Lat: 41.59998
Long: -87.95505
Universal Transverse Mercator

Check if map/diagram of review area and/or potential jurisdictional areas are available upon request:

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date
Field Determination Date(s) 30-Jul-2009

SECTION III: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There [ ] "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

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:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There [ ] "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area.

Water Name Water Type(s) Present
LRC-2009-008 WL 2 Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs

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

Area: (acres)
Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: [ ]
OHWM Elevation: (if known)


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

1. TNW

Not Applicable

2. Wetland Adjacent to TNW

Not Applicable

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

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

(i) General Area Conditions:

| Watershed size: | 51 acres |
| Drainage area: | 51 acres |
| Average annual rainfall: | 32 inches |
| Average annual snowfall: | 40 inches |
(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [ ] tributaries before entering TNW.

Number of tributaries [ ]

Project waters are 5-10 river miles from TNW.

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

Project Waters are 2-5 aerial (straight) miles from TNW.

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

Project waters cross or serve as state boundaries

Explain:

Identify flow route to TNW [ ]

The stream flows into a tributary of North Fradon Run, then into North Fradon Run, which flows to Fradon Run before draining to the H&M Canal, a TNW.

Tributary Stream Order, if known:

Order [ ]

Tributary Name [ ]

LRC-2008-608 WL-2

(b) General Tributary Characteristics:

Tributary is:

Tributary Name [ ]

LRC-2008-608 WL-2

Natural[ ] Artificial[ ] Explain[ ] Manipulated[ ]

Portions of the tributary have been channelized and tiled.

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

Tributary Name [ ]

LRC-2008-608 WL-2

Width (ft)[ ] Depth (ft)[ ] Side Slopes [ ]

4[ ] 1[ ] 4.1 (or greater)

Primary tributary substrate composition:

Tributary Name [ ]

LRC-2008-608 WL-2

Silt[ ] Sands[ ] Concrete[ ] Cobble[ ] Gravel[ ] Muck[ ] Bedrock[ ] Vegetation[ ] Other[ ]

X[ ] X[ ] X[ ] X[ ] X[ ] X[ ] X[ ]

Tributary (conditions, stability, presence, geometry, gradient):

Tributary Name [ ]

LRC-2008-608 WL-2

Condition/Stability[ ]

Run/Ripple/Pool Complexes[ ]

Geometry[ ]

Gradient (%)[ ]

Stable, small drainageway with non-eroding banks[ ]

none[ ] Meandering[ ]

2[ ]

(c) Flow:

Tributary Name [ ]

LRC-2008-608 WL-2

Provides for[ ]

Events Per Year[ ]

Flow Regime[ ]

Duration & Volume[ ]

Perennial flow[ ] 20 (or greater)[ ]

- [ ]

Surface Flow is:

Tributary Name [ ]

LRC-2008-608 WL-2

Surface Flow Characteristics[ ]

Discrete[ ] The drainageway is shown on the USGS quad as an intermittent stream.

Subsurface Flow:

Tributary Name [ ]

LRC-2008-608 WL-2

Subsurface Flow Explain Findings[ ]

Dye (or other) Test[ ]

Unknown[ ]

Tributary has:

Tributary Name [ ]

LRC-2008-608 WL-2

Bed & Banks CHW[ ]

Discontinuous OHWM[ ]

Explain[ ]

X[ ] X[ ]

Tributaries with OHWM [as indicated above]:

Tributary Name [ ]

LRC-2008-608 WL-2

CHW[ ] Clear Litter[ ]

Changes in Soil[ ]

Destruction Vegetation[ ]

Shelving[ ]

Wreck Line[ ]

Matted Absent Vegetation[ ]

Sediment Sorting[ ]

Leaf Litter[ ]

Scour[ ]

Sediment Deposition[ ]

Flow Events[ ]

Wet Stain[ ]

X[ ] X[ ] X[ ] X[ ] X[ ] X[ ] X[ ]

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by:

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality, general watershed characteristics, etc.).

Tributary Name [ ]

LRC-2008-608 WL-2

Water appears to be clear and unpolluted. Watershed is rural and suburban.

unknown[ ]

https://orm.usace.army.mil/orm2/?p=106:34:5652076202215504::NO::

1/7/2010
2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Not Applicable

(b) General Flow Relationship with Non-TNW:
Flow is:
Not Applicable
Surface flow:
Not Applicable
Subsurface flow:
Not Applicable

(c) Wetland Adjacency Determination with Non-TNW:
Not Applicable

(d) Proximity (Relationship) to TNW:
Not Applicable

(ii) Chemical Characteristics:
Characteristics of the tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics; etc.): Not Applicable

(iii) Biological Characteristics:
Not Applicable

3. Characteristics of all wetlands adjacent to the tributary (if any):
All wetlands being considered in the cumulative analysis:
Not Applicable

Summary overall biological, chemical, and physical functions being performed:
Not Applicable

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus exists when the water characteristics and functions of the wetland itself and the functions performed by any wetlands adjacent to the tributary to determine if they sign 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 insubstantial effect on the chemical, physical, and/or biological integrity of a TNW. Considerations when evaluating significant nexus includes, but are not limited to the volume, duration, and frequency in the tributary and (a) proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:
Not Applicable

2. RPWs that flow directly or indirectly into TNWs:
LRC 2006-608 W, 2 PERENNIAL

Provide estimates for jurisdictional wetlands in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC 2006-608 W, 2</td>
<td>728.43408</td>
<td>728.43408</td>
</tr>
</tbody>
</table>

3. Non-RPWs that flow directly or indirectly into TNWs:
Not Applicable

Provide estimates for jurisdictional wetlands in the review area:
Not Applicable

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable

https://orm.usace.army.mil/orm2/?p=106:34:5652076202215504::NO:: 1/7/2010
6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNW:
Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:
Not Applicable.

7. Impoundments of jurisdictional waters.
Not Applicable.

E. ISOLATED (INTERSTATE OR INTRA-STATE) WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, I WATERS:
Not Applicable.

Identify water body and summarizable rationale supporting determination:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS

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 June 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):

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 or endangerend integrated agriculture), using best professional judgment:
Not Applicable.

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:
Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD
(Indicate that the data cited in this section have been reviewed and, where checked and requested, appropriately referenced below.):
Not Applicable.

B. ADDITIONAL COMMENTS TO SUPPORT JD:
Not Applicable.

1. Does not include below were not supported by completing the appropriate sections in Section III below.

2. For purpose of this form, an RHW 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.

4. Note that the Instructual Guidance contains additional information regarding swales, ditches, washes, and seasonal features generally in the and Veget.

5. Flow route can be illustrated by identifying, e.g., tributary L, which flows through the review area to flow into tributary K, which then flows into TNW.

6. A natural or non-natural perennial in the DHWM does not necessarily serve jurisdiction (e.g., where the stream temporarily flows underground, or where the DHWM has been removed by development or agricultural practices). Where there is a break the water's flow regimen (e.g., flow over a rock outcrop or through a culvert), the agency will look for indicators of flow above and below the proper.

7. Id.

8. See Footnote 3.

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

10. Prior to assessing or declining CWA jurisdiction based solely on this category, Corps Districts will reference the action to Corps and EPA HQ for review (consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction)
SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There [ ] "Navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 328) in the review area.

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: 

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There [ ] "Waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.
   a. Indicate presence of waters of U.S. in review area:

      Water Name | Water Type(s) Present
      ---------- | ---------------------
      LRC-2009-0606 Nippersink Creek | Relatively Permanent Waters (RPW) that flow directly or indirectly into TNWs
      LRC-2009-0606 Wetland 1 | Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      LRC-2009-0606 Wetland 2 | Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      LRC-2009-0606 Wetland 3 | Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

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

      Area: m²
      Linear: m

   c. Limits (boundaries) of jurisdiction:

      Based on: 1987 Definition Manual
      OHWV Elevation: (If Known)

2. Non-regulated waters/wetlands:

   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 TNW

1. TNW
   Non Applicable.

2. Wetland Adjacent to TNW
   Non Applicable.

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

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

   (i) General Area Conditions:

      Watershed size: [ ]
      Drainage area: [ ]

https://orm.usace.army.mil/orm2/?p=106:34:633154180528321::NO::

12/30/2009
(ii) Physical Characteristics
(a) Relationship with TNW:
- Tributary flows directly into TNW.
- Tributary flows through [[tributaries before entering TNW].
- Number of tributaries
- Project waters are [ ] river miles from TNW.
- Project waters are [ ] river miles from RPW.
- Project Waters are [ ] aerial (straight) miles from TNW.
- Project waters are [ ] aerial (straight) miles from RPW.
- Project waters cross or serve as state boundaries

Explain:
- Identify flow route to TNW.

Tributary Stream Order, if known:
- Order
- Tributary Name: LRC-2009-068 Nipponani Creek

(b) General Tributary Characteristics:
- Tributary is:
  - Tributary Name: LRC-2009-068 Nipponani Creek
  - Natural | Artificial | Explain | Manipulated | Explain

Tributary properties with respect to top of bank (estimate):
- Tributary Name: LRC-2009-068 Nipponani Creek
- Width (ft) | Depth (ft) | Side Slopes
  - 100 | 4 | 4:1 (or greater)

Primary tributary substrate composition:
- Tributary Name: LRC-2009-068 Nipponani Creek
- Silt | Sands | Concrete | Cobble | Gravel | Muck | Bedrock | Vegetation | Other

Tributary (conditions, stability, presence, geometry, gradient):
- Tributary Name: LRC-2009-068 Nipponani Creek
- Condition/Recovery | Run-Riffle/Pond Complexes | Geometry | Gradient (%)

(c) Flow:
- Tributary Name: LRC-2009-068 Nipponani Creek
- Provides for | Events Per Year | Flow Regime | Duration & Volume

Surface Flow is:
- Tributary Name: LRC-2009-068 Nipponani Creek
- Surface Flow Characteristics

Subsurface Flow:
- Tributary Name: LRC-2009-068 Nipponani Creek
- Subsurface Flow Characteristics

Tributary has:
- Tributary Name: LRC-2009-068 Nipponani Creek
- Bed & Banks | OHWM | Discontinuous OHWM

If factors other than the OHWM were used to determine lateral extent of CWA Jurisdiction:
- High Tide Line indicated by:
- Mean High Water Mark indicated by:

(iii) Chemical Characteristics:
- Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.):
  - Tributary Name: LRC-2009-068 Nipponani Creek
  - Identify specific pollutants, if known

(iv) Biological Characteristics. Channel supports:
- Tributary Name: LRC-2009-068 Nipponani Creek
- Riparian Corridor Characteristics | Wetland Fringe Characteristics | Habitat

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

(i) Physical Characteristics:
(a) General Wetland Characteristics:

Properties:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Size (Acres)</th>
<th>Wetland Type</th>
<th>Wetland Quality</th>
<th>Cross or Serve as State Boundary Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-606 #6 Wetland 1</td>
<td>0.0</td>
<td>Emergent</td>
<td>Low FQI 6.7</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 2</td>
<td>0.0</td>
<td>Emergent/Riparian</td>
<td>Low to Moderate FQI 12.3</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 3</td>
<td>0.0</td>
<td>Emergent/Riparian</td>
<td>Moderate FQI 16.3</td>
<td>-</td>
</tr>
</tbody>
</table>

(b) General Flow Relationship with Non-TNW:

Flow is:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-606 #6 Wetland 1</td>
<td>Perennial Flow</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Surface flow is:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-606 #6 Wetland 1</td>
<td>Discrete</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 2</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 3</td>
<td>Discrete</td>
</tr>
</tbody>
</table>

Subsurface flow:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-606 #6 Wetland 1</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 3</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(c) Wetland Adjacency Determination with Non-TNW:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Directly Abutting</th>
<th>Discrete Wetland Hydrologic Connection</th>
<th>Ecological Connection</th>
<th>Separated by Berm/Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-606 #6 Wetland 1</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 2</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 3</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(d) Proximity (Relation) to TNW:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>River Miles From TNW</th>
<th>Aerial Miles From TNW</th>
<th>Flow Direction</th>
<th>Within Floodplain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-606 #6 Wetland 1</td>
<td>2-5</td>
<td>2-5</td>
<td>Wetland to navigable waters</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 2</td>
<td>2-5</td>
<td>2-5</td>
<td>Wetland to navigable waters</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 3</td>
<td>2-5</td>
<td>2-5</td>
<td>Wetland to navigable waters</td>
<td>-</td>
</tr>
</tbody>
</table>

(ii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Explain Identify specific pollutants, if known</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-606 #6 Wetland 1</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 2</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 3</td>
<td>-</td>
</tr>
</tbody>
</table>

(iii) Biological Characteristics. Wetland supports:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Riparian Buffer Characteristics</th>
<th>Vegetation</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-606 #6 Wetland 1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 2</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-606 #6 Wetland 3</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

All wetlands being considered in the cumulative analysis:

Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable.

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 of 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 adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.
D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. THWs and Adjacent Wetlands:
   Not Applicable.

2. RPWs that flow directly or indirectly into THWs:
   - Wetland Name: Nipperwink Creek
     - Flow: PERENNIAL
     - Explain: Nipperwink Creek is a continuously flowing, perennial stream

Provide estimates for jurisdictional waters in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-05 Wetland 3</td>
<td>Relatively Permanent Water (RPW) that flow directly or indirectly into THWs</td>
<td>0</td>
<td>378.700408</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0</td>
<td>378.700408</td>
</tr>
</tbody>
</table>

3. Non-RPWs that flow directly or indirectly into THWs:
   Not Applicable.

Provide estimates for jurisdictional waters in the review area:

4. Wetlands directly abutting an RPW that flow directly or indirectly into THWs:
   - Wetland Name: Wetland 1
     - Flow: PERENNIAL
     - Explain: Wetland is on an island in the middle of the creek
   - Wetland Name: Wetland 2
     - Flow: PERENNIAL
     - Explain: Wetland abutting RPW
   - Wetland Name: Wetland 3
     - Flow: PERENNIAL
     - Explain: Wetland abutting RPW

Provide acreage estimates for jurisdictional wetlands in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-05 Wetland 1</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into THWs</td>
<td>12.140586</td>
<td></td>
</tr>
<tr>
<td>LRC-2009-05 Wetland 2</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into THWs</td>
<td>16.187424</td>
<td></td>
</tr>
<tr>
<td>LRC-2009-05 Wetland 3</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into THWs</td>
<td>86.030832</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0</td>
<td>117.358824</td>
</tr>
</tbody>
</table>

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into THWs:
   Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into THWs:
   Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:

7. Impoundments of jurisdictional waters:
   Not Applicable.

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:
   Not Applicable.

Identify water body and summarize rationale supporting determination:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS:
   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 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 v. the review area would have been regulated/passed 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):

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:
Not Applicable.

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:
Not Applicable.


12/30/2009
SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD

<table>
<thead>
<tr>
<th>Data Reviewed</th>
<th>Source Label</th>
<th>Source Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Survey Map</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morley ADD Map</td>
<td></td>
<td>ADD NB</td>
</tr>
<tr>
<td>Drainage Map</td>
<td></td>
<td>Boundary shown on aerial</td>
</tr>
</tbody>
</table>

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable

---

1. Above checked below shall be supported by completing the appropriate sections in Section II below.
2. For purposes of this form, an IPW is defined as a tributary that is not a THW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
3. Buffering documentation is presented in Section III.
4. Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and unlined features generally and in the arid West.
5. Flow velocity can be described by velocity, e.g., channel, which flows through the review area, to flow into tributary, B, which then flows into TSW.
6. Natural or man-made impoundment in the OdWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OdWM has been removed by development or agricultural practices) Where there is a break (OdWM) 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.
7. ibid.
8. See Footnote #3.
9. To complete the analysis refer to the key in Section II D 3 of the Instructional Guidebook.
10. Prior to asserting or defining CWA jurisdiction based solely on this category, Corps Districts will evaluate the actions in Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Adjudications Following Appeal.

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): 12/21/09

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-486,

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Big Timber Rd, East of Powers Rd and North of Higgins Rd
State: Illinois  County/parish/borough: Kane  City: Rutland Township
Center coordinates of site (lat/long in degree decimal format): Lat. 42.10154°N, Long. -88.40568° W.
Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Tributary to Eakin Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Rock River
Name of watershed or Hydrologic Unit Code (HUC): Kishwaukee (07090006)
☐ 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: 12/10/2009
☒ Field Determination. Date(s): 12/10/2009

SECTION II: SUMMARY OF FINDINGS
A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "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: Defined in People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, slip op. at 7 (S.D.Ill. Jan. 20, 1979).

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 waters 2 (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:  linear feet: width (ft) and/or acres.
      Wetlands: 36 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
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain:

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.
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.

I. TNW
   Identify TNW: Pick List.


II. 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 waterbody\(^4\) 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 offshore. 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: inches
   Average annual snowfall: inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☐ Tributary flows through Pick List 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 TNW:\(^5\):
   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 Characteristics (check all that apply):

Tributary is:  
- Natural
- Artificial (man-made). Explain:  
- Manipulated (man-altered). Explain:  

Tributary properties with respect to top of bank (estimate):
- Average width: feet
- Average depth: feet
- Average side slopes: Pick List.

Primary tributary substrate composition (check all that apply):
- Silts
- Sands
- Cobble
- Gravel
- Bedrock
- Vegetation. Type/% cover:
- Muck
- Other. Explain:  

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

Presence of run/riffle/pool complexes. Explain:

Tributary geometry. Pick List.

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: Pick List.

Estimate average number of flow events in review area/year: Pick List.

Describe flow regime:

Other information on duration and volume:

Surface flow is: Pick List. Characteristics:

Subsurface flow: Pick List. Explain findings:
- Dye (or other) test performed:

Tributary has (check all that apply):
- Bed and banks
- OHWM* (check all indicators that apply):
  - clear, natural line impressed on the bank
  - changes in the character of soil
  - shelving
  - vegetation matted down, bent, or absent
  - leaf litter disturbed or washed away
  - sediment deposition
  - water staining
  - other (list):  
- Discontinuous OHWM. 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:
  - oil or scum line along shore objects
  - fine shell or debris deposits (foreshore)
  - physical markings/characteristics
  - tidal gauges
  - other (list):  
- Mean High Water Mark indicated by:
  - survey to available datum;
  - physical markings;
  - vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
- Explain:
- Identify specific pollutants, if known:

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*A 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.

Ibid.
(iv) **Biological Characteristics. Channel supports (check all that apply):**
- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
  - Federally Listed species. Explain findings:
  - Fish/spawn areas. Explain findings:
  - Other environmentally-sensitive species. Explain findings:
  - Aquatic/wildlife diversity. Explain findings:

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: acres
- 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: **Pick List**
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. Explain:
  - Ecological connection. Explain:
  - Separated by berm/barrier. 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.

(ii) **Chemical Characteristics:**
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:
Identify specific pollutants, if known:

(iii) **Biological Characteristics. Wetland supports (check all that apply):**
- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
- Habitat for:
  - Federally Listed species. Explain findings:
  - Fish/spawn areas. Explain findings:
  - Other environmentally-sensitive species. Explain findings:
  - Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **Pick List**
Approximately ( ) acres in total are being considered in the cumulative analysis.
For each wetland, specify the following:

<table>
<thead>
<tr>
<th>Name/ID</th>
<th>Directly abuts? (Y/N)</th>
<th>Size (in acres)</th>
<th>Name/ID</th>
<th>Directly abuts? (Y/N)</th>
<th>Size (in acres)</th>
</tr>
</thead>
</table>

Summarize overall biological, chemical and physical functions being performed:

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 abutt 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:

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. The Tributary to Eakin Creek is a RPW.
   - [ ] 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: \( \text{li near feet width (ft)} \).
- Other non-wetland waters: \( \text{acres} \).
Identify type(s) of waters: .

3. Non-RPWs\(^4\) 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: \( \text{li near feet width (ft)} \).
- Other non-wetland waters: \( \text{acres} \).
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
- 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: The Tributary to Eakin Creek is a 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: 36 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: 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.
- 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: .

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\(^{4}\) See Footnote # 3.

\(^{9}\) To complete the analysis refer to the key in Section III.D.6 of the Instructonal 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.
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: Delineation dated 12/1/2008.
- 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/Pick List, ______
- USGS NHD data: ______
- USGS 8 and 12 digit HUC maps: ______
- U.S. Geological Survey map(s). Cite scale & quad name: Pingree Grove 7.5”, 1992, Pick List, Pick List, ______
- National wetlands inventory map(s). Cite name: Pingree Grove, ______
- State/Local wetland inventory map(s): Kane County ADID, Pick List, ______
- FEMA/FIRM maps: ______
- 100-year Floodplain Elevation is: ______ (National Geodetic Vertical Datum of 1929)
- Photographs: □ Aerial (Name & Date): 2005.
- or □ Other (Name & Date): Site Visit 12/10/2009.
- Previous determination(s). File no. and date of response letter: 200200242.
- Applicable/supporting scientific literature: ______
- Other information (please specify): 2" Topographic Survey by Kane County.

B. ADDITIONAL COMMENTS TO SUPPORT JD: The large wetland is ADID High Functioning Wetland #480, which drains west through a ditch and under a driveway to ADID High Functioning Wetland #3169. Both the tributary to Eakin Creek and Eakin Creek flow from this wetland to the South Branch of the Kishwaukee River. The Kishwaukee River flows to the Rock River, which is a navigable waterway.
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): December 23, 2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, Bruner Forest Preserve Bridge Replacement

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Bruner Forest Preserve Bridge Replacement
State: Illinois  County/parish/county: Kane  City: Carpentersville
Center coordinates of site (lat/long in degree decimal format): Lat. 42.07526°N, Long. 88.17537°W
Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Unnamed Tributary to the Fox River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Fox River
Name of watershed or Hydrologic Unit Code (HUC): Upper Fox (07120006)
☐ 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: 12/21/2009
☐ Field Determination. Date(s): 11/17/2009

SECTION II: SUMMARY OF FINDINGS
A. RHA SECTION 10 DETERMINATION OF JURISDICTION.
There Are no “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: Defined in People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, slip op. at 7 (S.D.Ill. Jan. 20, 1979).

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 waters (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: 150 linear feet: 4 width (ft) and/or acres.
      Wetlands: 0.08 acres.
   c. Limits (boundaries) of jurisdiction based upon: 1987 Delineation Manual
      Elevation of established OHWM (if known): unknown.

2. Nea-regulated waters/wetlands (check if applicable): 2
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

1 Boxes checked below shall be supported by completing the appropriate sections in Section III below.
2 For purposes of this form, a 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.
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: Pick List

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 waterbody 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: inches
      Average annual snowfall: inches

   (ii) Physical Characteristics:
      (a) Relationship with TNW:
         ☐ Tributary flows directly into TNW.
         ☐ Tributary flows through Pick List 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 TNW: Pick List
         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 Characteristics** (check all that apply):

**Tributary is:**
- Natural
- Artificial (man-made).
- Manipulated (man-altered).

**Tributary** properties with respect to top of bank (estimate):
- Average width: feet
- Average depth: feet
- Average side slopes: Pick List.

Primary tributary substrate composition (check all that apply):
- Silts
- Sands
- Concrete
- Cobble
- Gravel
- Muck
- Bedrock
- Vegetation. Type % cover:
- Other. Explain:

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

Presence of run/riffle/pool complexes. Explain:

**Tributary geometry:** Pick List

Tributary gradient (approximate average slope): %

(c) **Flow:**

**Tributary provides for:** Pick List

Estimate average number of flow events in review area/year: Pick List

Describe flow regime:

Other information on duration and volume:

**Surface flow is:** Pick List. Characteristics:

**Subsurface flow:** Pick List. Explain findings:
- Dye (or other) test performed:

**Tributary has (check all that apply):**
- Bed and banks
- OHWM$^6$ (check all indicators that apply):
  - clear, natural line impressed on the bank
  - changes in the character of soil
  - shelving
  - vegetation matted down, bent, or absent
  - leaf litter disturbed or washed away
  - sediment deposition
  - water staining
  - 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
  - fine shell or debris deposits (foreshore)
  - physical markings/characteristics
  - tidal gauges
  - other (list):

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Identify specific pollutants, if known:

---

$^6$ A 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.

$^7$ Ibid.
(iv) Biological Characteristics. Channel supports (check all that apply):

☐ Riparian corridor. Characteristics (type, average width):

☐ Wetland fringe. Characteristics:

☐ Habitat for:

☐ Federally Listed species. Explain findings:

☐ Fish/spawn areas. Explain findings:

☐ Other environmentally-sensitive species. Explain findings:

☐ Aquatic/wildlife diversity. Explain findings:

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: 0.08 acres

☐ Wetland type. Explain: Fresh wet meadow.

☐ Wetland quality. Explain: Low Vegetative Quality (FWQ of 10.84).

Project wetlands cross or serve as state boundaries. Explain: Not Applicable.

(b) General Flow Relationship with Non-TNW:

Flow is: **Perennial flow**. Explain: Wetlands drain to unnamed tributary, flows to Fox River.

Surface flow is: **Confined**

Characteristics: Infiltrates to groundwater / sheet flow to channel.

Subsurface flow: **Unknown**. Explain findings:

☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

☒ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain:

☐ 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 **500-year or greater** 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: water is clear.

Identify specific pollutants, if known: Unknown.

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

☒ Riparian buffer. Characteristics (type, average width): 10 feet.

☒ Vegetation type/percent cover. Explain: Fresh wet meadow.

☐ Habitat for:

☐ Federally Listed species. Explain findings:

☐ Fish/spawn areas. Explain findings:

☐ Other environmentally-sensitive species. Explain findings:

☐ Aquatic/wildlife diversity. Explain findings:

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

All wetland(s) being considered in the cumulative analysis: 1

Approximately **0.08** acres in total are being considered in the cumulative analysis.
For each wetland, specify the following:

<table>
<thead>
<tr>
<th>Name/ID</th>
<th>Directly abuts? (Y/N)</th>
<th>Size (in acres)</th>
<th>Name/ID</th>
<th>Directly abuts? (Y/N)</th>
<th>Size (in acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland</td>
<td>Y</td>
<td>0.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upstream to Fox River</td>
<td>50 ft.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summarize overall biological, chemical and physical functions being performed:

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:

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: Site observation November 17, 2009: water flowing, depth approximately 6”. The waterway is identified on the Hydrologic Atlas Flood of Record Map and National Wetland Inventory Map; FEMA map show proximity to the Fox River (all attached). National Weather Service Climate Data -12/21/2009 Chicago-O’Hare Report attached.
   - [ ] 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: **150** linear feet 4 width (ft).
- Other non-wetland waters: acres.
- Identify type(s) of waters: .

3. Non-RPWs 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 abutting RPWs 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: *Wetland Delineation Report showing wetland boundaries and the proximity of the tributary to the Fox River is enclosed. A Delineated Wetland Boundary exhibit is enclosed.*
     - 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: **0.08** 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: 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.
     - 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: .

\(^{9}\) See Footnote # 3.
\(^{10}\) 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.
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 wetlands 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: .

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: Surveyed Wetland Boundary.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
- Corps navigable waters' study: .
- USGS NHD data.
- USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name.
- National wetlands inventory map(s). Cite name: US Fish & Wildlife Service--Wetlands Online Mapper.
- Previous determination(s). File no. and date of response letter:
- Applicable/supporting scientific literature:

B. ADDITIONAL COMMENTS TO SUPPORT JD: