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): 19-Aug-2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2011-00555-JD2

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: Cook
City: Northbrook
Lat: 42.13222
Long: -87.79140
Universal Transverse Mercator:

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: 09-Nov-2011
Field Determination Date(s): 01-Nov-2011

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

Water 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.

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: 1

Water Name: Wetland B (Tributary)
Water Type(s) Present: 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)
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: 422075 acres
   Drainage area: 370845 acres
   Average annual rainfall: 36.27 inches
   Average annual snowfall: 38 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 1 (or less) river miles from TNW.
   Project waters are 1 (or less) river miles from RPW.
   Project Waters are 1 (or less) aerial (straight) miles from TNW.
   Project waters are 1 (or less) aerial (straight) miles from RPW.

      Project waters cross or serve as state boundaries.
      Explain:
      Identify flow route to TNW:*5
      Tributary flows east into TNW.

   Tributary Stream Order, if known:
   Order   Tributary Name
   1       Wetland B (Tributary)

(b) General Tributary Characteristics:
   Tributary is:
   Tributary Name  Natural  Artificial  Explain  Manipulated
   Wetland B (Tributary)  -   -      -    X
   Explain: Large portion between the open channel and the TNW is piped.

   Tributary properties with respect to top of bank (estimate):
   Tributary Name  Width (ft)  Depth (ft)  Side Slopes
   Wetland B (Tributary)  1    .25     2:1

Primary tributary substrate composition:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Silt</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>Wetland B (Tributary)</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/Instability</th>
<th>Run</th>
<th>Riffle</th>
<th>Pool Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland B (Tributary)</td>
<td>Stable small tributary in a wooded area.</td>
<td></td>
<td></td>
<td></td>
<td>Absent</td>
<td>Relatively straight</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>Wetland B (Tributary)</td>
<td>Seasonal flow</td>
<td>11-20</td>
<td>Tributary picks up water from roads and lawns during and after rain events, and transports flood waters to the TNW.</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>Wetland B (Tributary)</td>
<td></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>Wetland B (Tributary)</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>Wetland B (Tributary)</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>Wetland B (Tributary)</td>
<td>Water is slightly cloudy.</td>
<td>Road salt and lawn chemicals.</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>Wetland B (Tributary)</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:
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.

Findings for: Wetland B (Tributary)
Tributary flows most of the growing season to TNW, which is only a mile east. This tributary picks up water from the highly urbanized area, and carries rainwater directly into the TNW on a seasonal basis.

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>Wetland B (Tributary)</td>
<td>SEASONAL</td>
<td>Tributary flows most of the growing season, especially during and after rainfall.</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>Wetland B (Tributary)</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>

11/9/2011
3. Non-RPWs that flow directly or indirectly into TNWs:⁸
   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: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>Patrick Engineering, Inc.</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>USGS 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>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>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 November 1, 2011.

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.
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): 27-Oct-2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2011-00721-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: Will
City:
Lat: 41.34228
Long: -88.18238
Universal Transverse Mercator

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: 02-Nov-2011
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:¹

<table>
<thead>
<tr>
<th>Water Name</th>
<th>Water Type(s) Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prairie Creek</td>
<td>Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>Wetland A-2</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>Wetland A-5</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
</tr>
</tbody>
</table>

¹ https://orm.usace.army.mil/orm2/f?p=106:34:3195420043783677::NO::
b. identify (estimate) size of waters of the U.S. in the review area:
   Area: (m^2)
   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.
         Explain:
         Identify flow route to TNW:

      Tributary Stream Order, if known:
      | Order | Tributary Name |
      |-------|----------------|
      | 1     | Prairie Creek  |

      (b) General Tributary Characteristics:
      Tributary is:
      | Tributary Name | Natural | Artificial | Explain | Manipulated | Explain |
      |----------------|---------|------------|---------|-------------|---------|
      | Prairie Creek  | X       | -          | -       | -           | -       |

      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>Prairie Creek</td>
<td>30</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>Prairie Creek</td>
<td>X</td>
<td>X</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>Run/Riffle/Pool Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prairie Creek</td>
<td>Tributary banks are vegetated, and so it's very stable</td>
<td>Absent</td>
<td>Relatively straight</td>
<td>1</td>
</tr>
</tbody>
</table>

**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>Prairie Creek</td>
<td>Perennial flow</td>
<td>20 (or greater)</td>
<td>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>Prairie Creek</td>
<td>Discrete and confined</td>
<td>Shallow banks with wetland vegetation then steeper banks in upland.</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>Prairie 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>Prairie 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>
</tr>
</thead>
<tbody>
<tr>
<td>Prairie Creek</td>
<td>Water moves slowly and has some sediment, so is cloudy. Identify specific pollutants, if known Sediment, road salt and oils.</td>
</tr>
</tbody>
</table>

(iv) Biological Characteristics. Channel supports:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Riparian Corridor</th>
<th>Characteristics</th>
<th>Wetland Fringe</th>
<th>Characteristics</th>
<th>Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prairie Creek</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>Herbaceous wetland fringe for a few feet, then woods.</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-2</td>
<td>.08</td>
<td>Emergent</td>
<td>Moderate FQI of 11-12</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>.08</td>
<td>Emergent</td>
<td>Moderate FQI of 11-12</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>.04</td>
<td>Emergent</td>
<td>Moderate FQI of 11-12</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-5</td>
<td>.01</td>
<td>Emergent</td>
<td>Moderate FQI of 11-12</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>Wetland A-2</td>
<td>Perennial flow</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>Perennial flow</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>Perennial flow</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-5</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-2</td>
<td>Discrete and confined</td>
<td>Defined bed and bank.</td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>Discrete and confined</td>
<td>Defined bed &amp; bank.</td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>Discrete and confined</td>
<td>Defined bed &amp; bank.</td>
</tr>
<tr>
<td>Wetland A-5</td>
<td>Discrete and confined</td>
<td>Defined bed &amp; bank.</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-2</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-5</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-2</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-5</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-2</td>
<td>1 (or less)</td>
<td>1 (or less)</td>
<td>Wetland to navigable waters</td>
<td>2-year or less</td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>1 (or less)</td>
<td>1 (or less)</td>
<td>Wetland to navigable waters</td>
<td>2-year or less</td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>1 (or less)</td>
<td>1 (or less)</td>
<td>Wetland to navigable waters</td>
<td>2-year or less</td>
</tr>
<tr>
<td>Wetland A-5</td>
<td>1 (or less)</td>
<td>1 (or less)</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>
<th>Identify specific pollutants, if known</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A-2</td>
<td>-</td>
<td>Sediment, road salt and oils.</td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>-</td>
<td>Sediment, road salt and oils.</td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>-</td>
<td>Sediment, road salt and oils.</td>
</tr>
<tr>
<td>Wetland A-5</td>
<td>-</td>
<td>Sediment, road salt and oils.</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-2</td>
<td>X</td>
<td>Several feet of wetland then upland woods for a large buffer on both sides of creek.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>X</td>
<td>Several feet of riparian wetland then upland woods for large buffer several hundred feet.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>X</td>
<td>Several feet of riparian wetland then upland woods for large buffer several hundred feet.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland A-5</td>
<td>X</td>
<td>Several feet of riparian wetland then upland woods for large buffer several hundred feet.</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>Prairie Creek</td>
<td>PERENNIAL</td>
<td>Creek 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>Prairie 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.\(^8\)
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-2</td>
<td>PERENNIAL</td>
<td>Creek flows year-round.</td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>PERENNIAL</td>
<td>Creek flows year-round.</td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>PERENNIAL</td>
<td>Creek flows year-round.</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-2</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>339.935904</td>
<td></td>
</tr>
<tr>
<td>Wetland A-3</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>339.935904</td>
<td></td>
</tr>
<tr>
<td>Wetland A-4</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>141.63996</td>
<td></td>
</tr>
<tr>
<td>Wetland A-5</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>44.515416</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>866.027184</td>
<td></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.


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>Bollinger, LaCh &amp; Associates, Inc.</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>-----Corps navigable waters study</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>---US 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>---US 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>--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>
</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. id.
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 evaluate 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 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): 21-Oct-2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District; LRC-2011-00696-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: Will
City:
Lat: 41.2633
Long: -88.2322
Universal Transverse Mercator

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: 14-Dec-2011
Field Determination Date(s): 13-Dec-2011

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
Cermak Ditch                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)

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      Cermak Ditch

   (b) General Tributary Characteristics:
      Tributary is:
      | Tributary Name | Natural | Artificial | Explain              | Manipulated | Explain |
      |----------------|---------|------------|----------------------|-------------|---------|
      | Cermak Ditch   | -       | X          | Ditch cut for drainage originally. | -           | -       |

   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>Cermak Ditch</td>
<td>5</td>
<td>1</td>
<td>2:1</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>Cermak Ditch</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</th>
<th>Stability</th>
<th>Run</th>
<th>Riffle</th>
<th>Pool Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cermak Ditch</td>
<td>Mostly stable, with some bank sloughing due to loam soils with high sand content.</td>
<td>Relatively straight</td>
<td>Small riffles, but no pool areas.</td>
<td>1</td>
<td></td>
<td></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>Cermak Ditch</td>
<td>Perennial flow</td>
<td>20 (or greater)</td>
<td>Ditch 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>Cermak Ditch</td>
<td>Discrete and confined</td>
<td>Wide channel with tall 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>Cermak Ditch</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>Cermak Ditch</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 Tides 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>Cermak Ditch</td>
<td>-</td>
<td>Water color is very clear.</td>
</tr>
</tbody>
</table>

(iv) Biological Characteristics. Channel supports:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Riparian Corridor</th>
<th>Characteristics</th>
<th>Wetland Fringe</th>
<th>Characteristics</th>
<th>Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cermak Ditch</td>
<td>X</td>
<td>30'</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:
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>Cermak Ditch</td>
<td>PERENNIAL</td>
<td>Ditch 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>Cermak Ditch</td>
<td>Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
<td>152.4</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>152.4</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
(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>
</table>

https://orm.usace.army.mil/orm2/?p=106:34:4084318147874496::NO:: 12/14/2011
B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

Site visit on 12/13/2011 to view ditch and photograph.

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 Rapinos.
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): 03-Oct-2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2011-00160-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

- State: IL - Illinois
- County/parish/borough: Lake
- City: Waukegan
- Lat: 42.34205
- Long: -87.87563
- Universal Transverse Mercator: Folder UTM List
  UTM list determined by folder location
  • NAD83 / UTM zone 16N
- Waters UTM List: Folder UTM List
  UTM list determined by waters location

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: 28-Nov-2011
Field Determination Date(s): 08-Nov-2011

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
      North Wetland   Wetlands adjacent to non-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:
OHWM Elevation: (if known)

2. Non-regulated waters/wetlands: 5
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 IT'S ADJACENT WETLANDS (IF ANY):

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

(ii) General Area Conditions:
Watershed size: 934048 acres
Drainage area: 836673 acres
Average annual rainfall: 34.36 inches
Average annual snowfall: 37.4 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 1-2 river miles from TNW.
Project waters are 1-2 river miles from RPW.
Project Waters are 1-2 aerial (straight) miles from TNW.
Project waters are 1-2 aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries.
Explain:
Identify flow route to TNW: 5
Wetland drains via small channel directly to the Des Plaines River to the west.

Tributary Stream Order, if known:
Not Applicable.

(b) General Tributary Characteristics:
Tributary is:
Not Applicable.

Tributary properties with respect to top of bank (estimate):
Not Applicable.

Primary tributary substrate composition:
Not Applicable.

Tributary (conditions, stability, presence, geometry, gradient):
Not Applicable.
(c) Flow:
Not Applicable.

Surface Flow is:
Not Applicable.

Subsurface Flow:
Not Applicable.

Tributary has:
Not Applicable.

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

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

(iv) Biological Characteristics. Channel supports:
Not Applicable.

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

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

<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>North Wetland</td>
<td>.2</td>
<td>Emergent</td>
<td>Low to Moderate</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>North Wetland</td>
<td>Intermittent 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>North Wetland</td>
<td>Discrete and confined</td>
<td>Wetland drains via a small ditch.</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>North 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 Berni/Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>North 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>
</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>North Wetland</td>
<td>Unknown</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>North Wetland</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 that an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Findings for: North Wetland
The northern wetland exhibits a surface water connection to a traditional navigable waterway. This surface water connection demonstrates the ability of the tributary to carry pollutants, flood waters, nutrients and organic carbon to the TNW. The adjacent wetland has the ability to reduce the amount of pollutants and floodwaters reaching the TNW. The headwater wetland is receiving a percentage of it's water from groundwater and from runoff from the surrounding uplands before it flows into Des Plaines River. Wetlands such as these provide stormwater storage, habitat, sediment/toxicant retention and nutrient removal/ transformation. The decrease of sedimentation, pollutants, flooding, nutrients and habitat provided by the subject wetland provides a positive effect to the downstream relatively permanent waters and traditional navigable waters. The wetland alone, and in combination with other area wetlands, significantly affect the chemical, physical and biological integrity of the Des Plaines River. Stormwater storage provided by the subject wetlands affect the frequency and extent of downstream flooding, decreasing flood peaks in the Des Plaines River, and in turn impacting navigation and downstream bank erosion and sedimentation. The sediment and pollutant/toxicant retention provided by the subject wetland has a direct positive effect on the Des Plaines River in regards to navigation and aquatic food webs that are not adapted to thrive in sediment-choked environments. These factors contribute to the finding of a significant nexus between the on-site wetland and the TNW.

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:
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:

<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>North Wetland</td>
<td>Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>809.3712</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>0</td>
<td>809.3712</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Data Reviewed</th>
<th>Source Label</th>
<th>Source Description</th>
</tr>
</thead>
</table>

11/28/2011
---Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant - -
---Data sheets prepared/submitted by or on behalf of the applicant/consultant - -
---Office concurs with data sheets/delineation report - -
---U.S. Geological Survey Hydrologic Atlas - -
---USGS 8 and 12 digit HUC maps - -
---U.S. Geological Survey map(s). - -
---USDA Natural Resources Conservation Service Soil Survey. - -
---State/Local wetland inventory map(s); - -
---FEMA/FIRM maps - -
---Photographs - -
----Aerial - -
---Applicable/supporting case law - -
---Other information - -

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

Walked drainage to river during Nov. 8, 2011 site visit.

---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.
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): 24-Oct-2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2011-00732-JD2

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: IL - Illinois
County/parish/borough: Cook
City: Richton Park
Lat: 41.49182
Long: -87.7718

Universal Transverse Mercator

Folder UTM List
UTM list determined by folder location
• NAD83 / UTM zone 16N
Waters UTM List
UTM list determined by waters location

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: 28-Nov-2011
Field Determination Date(s): 21-Nov-2011

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION
These "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.
These "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>Hickory Creek Tributary</td>
<td>Relatively Permanent Waters (RPW) that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>Wetland 2</td>
<td>Wetlands directly abutting RPW's 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:

<table>
<thead>
<tr>
<th>Order</th>
<th>Tributary Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Hickory Creek Tributary</td>
</tr>
</tbody>
</table>

(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>Hickory Creek Tributary</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Straightened</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>Hickory Creek Tributary</td>
<td>2</td>
<td>.5</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>Hickory Creek Tributary</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</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>Runn/Ripple/Pool Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hickory Creek Tributary</td>
<td>Tributary banks are mowed, but bottom is stable.</td>
<td>Absent</td>
<td>Relatively straight</td>
<td>2</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>Hickory Creek Tributary</td>
<td>Seasonal flow</td>
<td>20 (or greater)</td>
<td>Flows throughout growing season; may dry up in winter</td>
<td>-</td>
</tr>
</tbody>
</table>

Surface Flow is:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Surface Flow Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hickory Creek Tributary</td>
<td>Discrete and confined steep and deep banks to point channel</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>Hickory Creek Tributary</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>Hickory Creek Tributary</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>Hickory Creek Tributary</td>
<td>Water color is clear. Farm fertilizers and pesticides from the south</td>
<td></td>
</tr>
</tbody>
</table>

(iv) Biological Characteristics. Channel supports:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Riparian Corridor</th>
<th>Characteristics</th>
<th>Wetland Fringe</th>
<th>Characteristics</th>
<th>Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hickory Creek Tributary</td>
<td>-</td>
<td>-</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:

<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 2</td>
<td>.1</td>
<td>Forested</td>
<td>Low</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>Wetland 2</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 2</td>
<td>Overland sheetflow</td>
<td>Wetland is wide area around both sides of the creek.</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 2</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 2</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 2</td>
<td>30 (or more)</td>
<td>30 (or more)</td>
<td>Wetland to navigable waters</td>
<td>2 - 5-year</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>Wetland 2</td>
<td>-</td>
<td>Farm pesticides and fertilizers.</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 2</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>Hickory Creek</td>
<td>PERENNIAL</td>
<td>Tributary flows continuously during the growing season.</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>Hickory Creek</td>
<td>Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
<td>30.48</td>
<td>-</td>
</tr>
<tr>
<td>Tributary</td>
<td></td>
<td>30.48</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>30.48</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

3. Non-RPWs that flow directly or indirectly into TNWs:⁸
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 2</td>
<td>SEASONAL</td>
<td>Wetland is abutting creek, so has water flowing throughout growing season.</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 2</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>404.6856</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td>0</td>
<td><strong>404.6856</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: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):

Not Applicable.

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 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.
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): 24-Oct-2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2011-00732-JD3

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: Cook
City: Richton Park
Lat: 41.49182
Long: -87.7718
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: 28-Nov-2011
Field Determination Date(s): 21-Nov-2011

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
      Wetland 3 Wetlands adjacent to but not 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:
   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: 934048 acres
      Drainage area: 836673 acres
      Average annual rainfall: 38.43 inches
      Average annual snowfall: 31.5 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 30 (or more) river miles from TNW.
         Project waters are 1 (or less) river miles from RPW.
         Project Waters are 30 (or more) aerial (straight) miles from TNW.
         Project Waters are 1 (or less) aerial (straight) miles from RPW.
         Project waters cross or serve as state boundaries.
         Explain:
         Identify flow route to TNW:
         Wetland to tributary of Hickory Creek to Hickory Creek to Des Plaines River.

      Tributary Stream Order, if known:
      Not Applicable.

      (b) General Tributary Characteristics:
      Tributary is:
      Not Applicable.

      Tributary properties with respect to top of bank (estimate):
      Not Applicable.

      Primary tributary substrate composition:
      Not Applicable.

      Tributary (conditions, stability, presence, geometry, gradient):
      Not Applicable.
(c) Flow:
Not Applicable.

Surface Flow is:
Not Applicable.

Subsurface Flow:
Not Applicable.

Tributary has:
Not Applicable.

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.).
Not Applicable.

(iv) Biological Characteristics. Channel supports:
Not Applicable.

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:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Directly Abuts</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
</table>
Wetland 3  No  607.0284  
Total:  607.0284

Summarize overall biological, chemical and physical functions being performed:
Wetland Name  Functional Summary  
Wetland 3  Wetland 3 is a high quality aquatic resource, and provides habitat and water quality benefits to the adjacent Hickory Creek tributary, and the TNW.

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.

Findings for: Wetland 3
The wetland is adjacent and contiguous to the tributary to Hickory Creek, which has seasonal relative permanent flow, and exhibits a surface water connection to a traditional navigable waterway. This surface water connection demonstrates the ability of the tributary to carry pollutants, flood waters, nutrients and organic carbon to the TNW. The adjacent wetlands have the ability to reduce the amount of pollutants and floodwaters reaching the TNW. The headwater wetland is receiving a percentage of its water from groundwater and from runoff from the surrounding uplands before it flows into Des Plaines River. Wetlands such as these provide stormwater storage, habitat, sediment/toxicant retention and nutrient removal/transformation. The decrease of sedimentation, pollutants, flooding, nutrients and habitat provided by the subject wetland provides a positive effect to the downstream relatively permanent waters and traditional navigable waters. The wetland alone, and in combination with other area wetlands, significantly affect the chemical, physical and biological integrity of the Des Plaines River. Stormwater storage provided by the subject wetlands affect the frequency and extent of downstream flooding, decreasing flood peaks in the Des Plaines River, and in turn impacting navigation and downstream bank erosion and sedimentation. The sediment and pollutant/toxicant retention provided by the subject wetland has a direct positive effect on the Des Plaines River in regards to navigation and aquatic food webs that are not adapted to thrive in sediment-choked environments. These factors contribute to the finding of a significant nexus between the on-site wetland and the TNW.

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:
   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:

ORM Printer Friendly JD Form

<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 3</td>
<td>Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>607.0284</td>
</tr>
</tbody>
</table>

Total: 0 607.0284

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.¹⁰
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 (e.g., 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, when 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>-National wetlands inventory map(s)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-FEMA/FIRM maps</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

https://orm.usace.army.mil/orm2/?p=106:34:1392464831910202::NO::

11/28/2011
B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description
Site visit on 21 Nov. 2011.

---Photographs

---Aerial

---Applicable/supporting case law

---Other information

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

2. For purposes of this form, an RPV 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 (J/D): 23 Nov 2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2011-0540-J/D

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parch/borough: McHenry
City: Sycamore Township
Lat: 42.23662
Long: -88.11109

Universal Transverse Mercator (UTM)

<table>
<thead>
<tr>
<th>UTM zone</th>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>15N</td>
<td>306537</td>
<td>6585624</td>
</tr>
</tbody>
</table>

UTM Lat determined by field location

Waters UTM List

<table>
<thead>
<tr>
<th>UTM zone</th>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>15N</td>
<td>306537</td>
<td>6585624</td>
</tr>
</tbody>
</table>

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determining Date: 23 Nov 2011
Field Determination Date: Y/N: Y

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 Act are now in use or may be susceptible to use for 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 Type(s) Present: Kishwaukee River

      LRC-2011-540 Kishwaukee 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: in²
   Linear: ft

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:

      Drainage area:
      Average annual rainfall: inches
      Average annual snowfall: inches

(i) Physical Characteristics

(a) Relationship with TNW:
- Tributary flows directly into TNW
- Tributary flows through 1 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:
  - Explain:
  - Identify flow route to TNW:

Tributary Stream Order, if known:
- Order: 1
- Tributary Name: LRC-2111-540 Kishwaukee River

(b) General Tributary Characteristics:
- Tributary is:
  - Tributary Name: LRC-2111-540 Kishwaukee River
  - Natural: X
  - Artificial: 
  - Explain: Natural stream with evidence of straightening in proximity to the project

Tributary properties with respect to top of bank (estimated):
- Tributary Name: LRC-2111-540 Kishwaukee River
- Width (ft): 35
- Depth (ft): 2
- Side Slopes: 4:1 (or greater)

Primary tributary substrate composition:
- Tributary Name: LRC-2111-540 Kishwaukee River
- Silt: 
- Sands: 
- Concrete: 
- Cobble: 
- Gravel: 
- Muck: 
- Bedrock: 
- Vegetation: 
- Other: 

Tributary (conditions, stability, presence, geometry, gradient):
- Tributary Name: LRC-2111-540 Kishwaukee River
- Conditions/Geometry:
  - Run/Riffle/Pool Complexes: 
  - Geometry: 
  - Gradient (%): 
  - Relatively straight: 

(c) Flow:
- Tributary Name: LRC-2111-540 Kishwaukee River
- Provides for perennial flow: 
- Events Per Year: 
- Flow Regime: 
- Duration & Volume: 

Surface Flow:
- Tributary Name: LRC-2111-540 Kishwaukee River
- Surface Flow: Discrete and confined

Subsurface Flow:
- Tributary Name: LRC-2111-540 Kishwaukee River
- Subsurface Flow: 
- Explain Findings: 
- Dye (or other) Test: 

Tributary has:
- Tributary Name: LRC-2111-540 Kishwaukee River
- Bed & Banks: 
- OWWM: 
- Discontinuous OWWM: 
- Explain: 

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

High Tide Low indicated by:
- Not applicable

Mean High Water Mark indicated by:
- Not applicable

[iii] Chemical Characteristics:
- Characteristics of tributary (e.g., water color is clear, discolor, oily film; water quality; general watershed characteristics, etc.):
- Tributary Name: LRC-2111-540 Kishwaukee River
- Explain: 
- Identify specific pollutants, if known
- Clear photographs: This stream is identified as being high quality (HQR).

(iv) Biological Characteristics: Channel supports:
- Tributary Name: LRC-2111-540 Kishwaukee River
- Riparian Corridor: 
- Characteristics: 
  - Wetland Fringe: 
  - Characteristic: 
    - Habitats: (as indicated above)
    - External: 
      - Mostly on east side of bridge is immediate area
      - charateristics:

https://orm.usace.army.mil/orm2/?p=106:34:6514559692736267::NO::

11/28/2011
2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(b) Physical Characteristics:
(i) General Wetland Characteristics:
Properties:
Not Applicable.

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

Surface Flow:
Not Applicable.

Subsurface Flow:
Not Applicable.

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

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

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

(iv) 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 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 significant 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-2011-540 Kishwaukee River</td>
<td>PERENNIAL</td>
<td>Solid blue line on USGS 10 foot quad. Located within 100-10 foot zone. Known as a high quality perennial stream</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 (&gt;0.5) [m²]</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2011-540 Kishwaukee River</td>
<td>Relatively Permanent Waters (RPW) that flow directly or indirectly into TNWs</td>
<td>0</td>
<td>&gt;85.8272</td>
</tr>
</tbody>
</table>

Total: 0

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

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

4. Waters directly affecting 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 affecting 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-PRPs 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 wetlands 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 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):

Provide acreage estimates for non-jurisdictional wetlands 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 irrigation agriculture), taking into account professional judgment:
Not Applicable.

Provide acreage estimates for non-jurisdictional wetlands 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

Data Reviewed (check item shall be included in case file and, where checked and requested, appropriately referenced 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>-U.S. Geological Survey map(s),</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-National wetlands inventory maps,</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-State/local wetlands inventory maps,</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>Site photos</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 2 below.
2. If purpose of the form is for an PRP, it shall be completed as a methodology that is not a TRN and that qualifies for non-jurisdictional waters (i.e., continuous flow at least seasonally (e.g., typically 3 months).
3. Supporting documentation is presented in Section 3.
4. Map that the jurisdictional waterbodies contains additional information regarding support, reaches, lakes, and evaporation features generally and in the end Vales.
5. Lower route can be described as an example of a tributary, which flows through the review area, to flow into tributary B, which then flows into TNW.
6. If water is directly or indirectly in the upstream area of the riparian area, which flows through the review area, to flow into tributary B, which then flows into TNW, the agencies will look for indications of flow source and below the break.
7. See Section 3.
8. To complete the analysis as priority to Section II D 5 of the jurisdictional guidelines.
9. Prior to assessing or declaring CRP jurisdictional watershed or stream category, Corps Districts will apply the section to Corps and EPA HQ for review. Consistent with the process described in the Corps 1 EPA memorandum regarding 1987 CRP.

---

ORM Printer Friendly JD Form

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): 23-Sep-2011
B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, URC-2011-00055-L20
C. PROJECT LOCATION AND BACKGROUND INFORMATION:
   gate: IL - Indiana
   County/parish/borough: Cook
   City: 
   Lat: 41.58394
   Long: -87.65175
   Universal Transverse Mercator: 67
   UTM lat/long determined by field location
   Waters UTM Lat/Long determined by waters location
   Name of nearest waterbody: 
   Name of nearest Traditional Navigable Water (TNW): 
   Name of watershed or Hydrologic Unit Code: (HUC):
   Check if map/drawing of review area and/or potential jurisdictional areas is available upon request.
   Check if other sites (e.g., offshore drilling sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form

G. REVIEW PERFORMED FOR SITE EVALUATION:
   Office Determination Date: 10-Nov-2011
   Field Determination Date(s): 04-Nov-2011

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 Frame:
      Water Type(s) Present:
      Calumet Union Drainage Ditch: Relatively Permanent Waters (RPW) that flow directly or indirectly into TNWs
      Markham Ditch: Relatively Permanent Waters (RPW) that flow directly or indirectly into TNWs
      More Ditch: Relatively Permanent Waters (RPW) that flow directly or indirectly into TNWs
      West Ditch: Relatively Permanent Waters (RPW) that flow directly or indirectly into TNWs

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

c. Limits (boundaries) of jurisdiction:
   based on:
   GHWM 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
1. TNW 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:

https://orm.usace.army.mil/orm2/?p=106:34:2864283789749783::NO::
11/10/2011
(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 RPS.
- Project Waters are aerial (straight) miles from TNW.
- Project waters are aerial (straight) miles from RPS.
- Project waters cross or serve as state boundaries.
- Explain:
- Identify flow route to TNW:

(b) General Tributary Characteristics:

1. Tributary Stream Order, if known:
   - Order Tributary Name
   1. Calumet Union Drainage Ditch
   2. Metra Ditch
   3. West Ditch
   4. Markham Ditch

2. Tributary is:
   - Tributary Name Natural Artificial Explain Manipulated Explain
   - Calumet Union Drainage Ditch - - - X Strengthened and lined with concrete.
   - Markham Ditch - - - X Strengthened
   - Metra Ditch - - - X Strengthened
   - West Ditch - - - X Creek channel is mostly open, then paved to the Calumet Union Drainage Channel.

3. Tributary properties with respect to top of bank (estimate):
   - Tributary Name Width (ft) Depth (ft) Side Slopes
   - Calumet Union Drainage Ditch 15 1 Vertical (1:1 or less)
   - Markham Ditch - - -
   - Metra Ditch 5 1 2.1
   - West Ditch 3 1 2.1

4. Primary tributary substrate composition:
   - Tributary Name Silt Sand Concrete Cobble Gravel Muck Bedrock Vegetation Other
   - Calumet Union Drainage Ditch X - - - - - -
   - Markham Ditch X - - - - - -
   - Metra Ditch X - - - - - -
   - West Ditch X - - - - - -

5. Tributary conditions, stability, presence, geometry, gradient:
   - Tributary Name Condition/Stability Runoff/Recharge Complexes Geometry Gradient (%) Runoff/Recharge Complexes Geometry Gradient (%)
   - Calumet Union Drainage Ditch Within the right bank it has vertical concrete walls and a concrete bottom. Absent Relatively straight 1
   - Markham Ditch Tributary fairly stable with vegetation banks, no eroding visible Absent Relatively straight 1
   - Metra Ditch Relatively stable with vegetation banks with stones and shingles. Absent Relatively straight 1
   - West Ditch Tributary is relatively stable due to vegetation. Absent Relatively straight 1

6. Flow:
   - Tributary Name Provides for Events Per Year Flow Regime
   - Calumet Union Drainage Ditch Perennial flow 20 (or greater) Ditch flows year-round.
   - Markham Ditch Perennial flow 20 (or greater) Tributary flows year-round.
   - Metra Ditch Perennial flow 20 (or greater) Tributary flows into Calumet Union Drainage Ditch, which flows to the Calumet River.
   - West Ditch Seasonal flow 11-20 Channel flows multiple times a year due to rain runoff feeding it, then slowly draining but via pipe to Calumet Union Drainage Canal.

7. Surface Flow:
   - Tributary Name Surface Flow Characteristics
   - Calumet Union Drainage Ditch Discrete and confined Concrete lined channel
   - Markham Ditch Discrete and confined Defined bed and bank; habit water flow; creek
   - Metra Ditch Discrete and confined Defined bed and banks
   - West Ditch Discrete and confined Steep banks off of right side.

8. Subsurface Flow:
   - Tributary Name Subsurface Flow Explain Findings Dye (or other) Test
   - Calumet Union Drainage Ditch No - -
   - Markham Ditch Unknown - -
   - Metra Ditch Unknown - -
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>Calumet Union Drainage Ditch</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marsham Ditch</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meira Ditch</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Ditch</td>
<td>X</td>
<td></td>
<td></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>Shelfing</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 Star</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calumet Union Drainage Ditch</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></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:

High Tide Line indicated by:
Not Applicable

Mean High Water Mark indicated by:
Not Applicable

(ii) 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>Calumet Union Drainage Ditch</td>
<td>Water is cloudy with trash</td>
<td>Sediment, mud, salt and oils</td>
</tr>
<tr>
<td>Marsham Ditch</td>
<td>Water color is slightly cloudy</td>
<td>Sediment and grease, oil from railyard</td>
</tr>
<tr>
<td>Meira Ditch</td>
<td>Water color is slightly cloudy</td>
<td>Grease and oil from railyard</td>
</tr>
<tr>
<td>West Ditch</td>
<td>Water color is slightly discolored due to sediment.</td>
<td>Grease and oil from railyard</td>
</tr>
</tbody>
</table>

(iv) Biological Characteristics. Channel supports:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Riparian Corridor</th>
<th>Characteristics</th>
<th>Wetland Fringe</th>
<th>Characteristics</th>
<th>Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calumet Union Drainage Ditch</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marsham Ditch</td>
<td>X</td>
<td>Tree and shrub lined channel, about 30 feet wide total.</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Meira Ditch</td>
<td>X</td>
<td>30 feet with trees and shrubs.</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>West Ditch</td>
<td></td>
<td></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:
(ii) 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 are significant 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

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:
   Flow
   Wetland Name                      Type       Flow
   Calderet Union Drainage Ditch     PERENNIAL  Ditch flows year-round.
   Marsham Ditch                     PERENNIAL  Creek flows year-round.
   Neira Ditch                       PERENNIAL  Ditch flows year-round.
   West Ditch                        SEASONAL  Ditch collects water from surrounding rainfall, so flows throughout the growing season.

   Provide estimates for jurisdictional waters in the review area:
   Wetland Name                      Type       Size (Linear) (m)  Size (Area) (m²)
   Calderet Union Drainage Ditch     Relatively Permanent Water (RPW) that flow directly or indirectly into TNWs 304.8 -
   Marsham Ditch                     Relatively Permanent Water (RPW) that flow directly or indirectly into TNWs 304.8 -
   Neira Ditch                       Relatively Permanent Water (RPW) that flow directly or indirectly into TNWs 304.8 -
   West Ditch                        Relatively Permanent Water (RPW) that flow directly or indirectly into TNWs 457.2 -
   Total:                            -            1371.6  0

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, 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 or waters 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, or other protection of wetland habitat) 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

Data Reviewed

- Maps, prints, plots or plans submitted by or on behalf of the applicant/consultant
- Data sheets prepared/submitted by or on behalf of the applicant/consultant
- Office/correspondence with data sheets/determination report
- Corps navigable waters study
- U.S. Geological Survey Hydrologic Atlas
- USGS 8 and 12 digit HUC maps
- U.S. Geological Survey maps
- National wetlands inventory maps
- FEMA/FIRM maps
- Photographs
- Aerial
- Other
- Applicant/Supporting case law
- Other information

Source
Shaw Environmental, Inc.

Source Label

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description
Site visit to walk all wetland areas on November 4, 2011 with Ken Harris

1) Sources checked below shall be supported by completing the appropriate sections in Section III below.
2) For purpose of this form, an RWMA is defined as a tributary that is a 4+ TMD and that typically flows year-round or has continuous flow at least "seasonally" (e.g., 6 months).
3) Supporting documentation is presented in Section III.
4) Note that the Instructonal Guidebook contains additional information regarding pools, ditches, wetland, and occasional features generally not in the third and fifth.
5) Flow is not necessarily defined as a stream as a stream may change flow seasonally or be intermittent and not flow year-round.
6) A natural or man made discontinuity in the flow system is not necessarily a wetland (e.g., where the stream temporarily flows underground, or where the stream has been removed by development or agricultural practices). Where there is a break in the waterbody's flow regime (e.g., flow over a rock or through a culvert), the agencies will look for indications of flow above and below the break.
7) See Footnote #
8) See Footnote #
9) To complete the analysis refer to the K-IV, Section III.1.4 of the Instructonal Guidebook.
10) Prior to submitting or declining LWU jurisdiction based solely on the category, Corps Districts will evaluate the action at Corps and EPA HQ for review consistent with the process described in the Corps/ERMA Memorandum on Regarding CWA Act Jurisdiction.

11/10/2011
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): 23-Sep-2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2011-00655-JD2

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
   State: IL - Illinois
   County/parish/borough: Cook
   City:
   Lat: 41.58394
   Long: -87.65175
   Universal Transverse Mercator
   Folder UTM List
   UTM list determined by folder location
   • NAD83 / UTM zone 16N
   Waters UTM List
   UTM list determined by waters location

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: 10-Nov-2011
   Field Determination Date(s): 04-Nov-2011

SECTION I'I: 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
      Wetland 4   | Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      Wetland 6   | Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

   b. Identify (estimate) size of waters of the U.S. in the review area:
      Area: (ms²)

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: 462669 acres
      Drainage area: 10202 acres
      Average annual rainfall: 36.43 inches
      Average annual snowfall: 31.5 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 2-5 river miles from TNW.
         Project waters are 1 (or less) river miles from RPW.
         Project Waters are 2-5 aerial (straight) miles from TNW.
         Project waters are 1 (or less) aerial(straight) miles from RPW.
         Project waters cross or serve as state boundaries.
         Explain:
         Identify flow route to TNW:
         Wetlands drain via on-site ditch to the Calumet Union Drainage Canal, then to the Calumet River, a TNW.

      Tributary Stream Order, if known:
      Not Applicable.

   (b) General Tributary Characteristics:
      Tributary is:
      Not Applicable.

      Tributary properties with respect to top of bank (estimate):
      Not Applicable.

      Primary tributary substrate composition:
      Not Applicable.

      Tributary (conditions, stability, presence, geometry, gradient):
      Not Applicable.
(c) Flow:
Not Applicable.

Surface Flow is:
Not Applicable.

Subsurface Flow:
Not Applicable.

Tributary has:
Not Applicable.

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.).
Not Applicable.

(iv) Biological Characteristics. Channel supports:
Not Applicable.

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 4</td>
<td>2</td>
<td>Emergent</td>
<td>Low, FQA = 1.4</td>
<td></td>
</tr>
<tr>
<td>Wetland 6</td>
<td>3</td>
<td>Emergent</td>
<td>Low, FQA - 1.0</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>Wetland 4</td>
<td>Intermittent flow.</td>
<td>-</td>
</tr>
<tr>
<td>Wetland 6</td>
<td>Intermittent 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 4</td>
<td>Overland sheetflow</td>
<td>Large flat wetland with a pipe outlet at the northern end, receives water via upland ditch between RR track and roads</td>
</tr>
<tr>
<td>Wetland 6</td>
<td>Overland sheetflow</td>
<td>Large broad wetland takes drainage from railyard and outlets via pipe at north end</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 4</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wetland 6</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>
</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 4</td>
<td>2-5</td>
<td>2-5</td>
<td>Wetland to navigable waters</td>
<td>50 - 100-year</td>
</tr>
<tr>
<td>Wetland 6</td>
<td>2-5</td>
<td>2-5</td>
<td>Wetland to navigable waters</td>
<td>50 - 100-year</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>Chemicals from</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland 4</td>
<td>yard.</td>
<td>Chemicals from rail yard.</td>
</tr>
<tr>
<td>Wetland 6</td>
<td></td>
<td>Grease and oils from locomotive repair and maintenance.</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>Wetland 4</td>
<td>-</td>
<td>X</td>
<td>Mostly cattails, provides some bird habitat.</td>
</tr>
<tr>
<td>Wetland 6</td>
<td>-</td>
<td>X</td>
<td>Mostly cattails, provides some bird habitat.</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.

Findings for: Wetland 4, Wetland 6

The wetlands drain via on-site tributaries to the Calumet Union Drainage Canal, which has relative permanent flow, and exhibits a surface water connection to a traditional navigable waterway. This surface water connection demonstrates the ability of the wetlands via the tributary to carry pollutants, flood waters, nutrients and organic carbon to the TNW. These wetlands have the ability to reduce the amount of pollutants and floodwaters reaching the TNW. These wetlands are receiving a percentage of these water from groundwater and from runoff from the surrounding uplands before it flows into Calumet River. Wetlands such as these provide stormwater storage, habitat, sediment/toxicant retention and nutrient removal/transformation. The decrease of sedimentation, pollutants, flooding, nutrients and habitat provided by the subject wetlands provides a positive effect to the downstream relatively permanent waters and traditional navigable waters. These wetlands alone, and in combination with other area wetlands, significantly affect the chemical, physical and biological integrity of the Calumet River. Stormwater storage provided by the subject wetlands affect the frequency and extent of downstream flooding, decreasing flood peaks in the Calumet River, and in turn impacting navigation and downstream bank erosion and sedimentation. The sediment and pollutant/toxicant retention provided by the subject wetlands have a direct positive effect on the Calumet River in regards to navigation and aquatic food webs that are not adapted to thrive in sediment-choked environments. These factors contribute to the finding of a significant nexus between the on-site wetlands and the TNW.

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:
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:

<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 4</td>
<td>Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>8093.712</td>
</tr>
<tr>
<td>Wetland 6</td>
<td>Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>12140.568</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>0</td>
<td>20234.28</td>
</tr>
</tbody>
</table>

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.

Identity 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 1981 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 for 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>Shaw Environmental, Inc.</td>
<td>Routine Wetland Assessment Report - September 9, 2011.</td>
</tr>
<tr>
<td>Office concurs with data sheets/derivation report</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Corps navigable waters study</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>National wetlands 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
November 4, 2011 site visit to walk all wetland areas with Kari Harris.

1. Boxes checked below shall be supported by completing the appropriate sections in Section III below.
2. For purposes of the form, an RPP 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 seales, 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 Riparian.
SECTION I: BACKGROUND INFORMATION

1. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 14-Dec-2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, (PRJ-2011-00216-JD)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL. Illinois
County/parish/borough: McHenry
City: Lake in the Hills
Lat: 42.17454
Long: -88.93323
Universal Transverse Mercator

<table>
<thead>
<tr>
<th>UTM lat determined by UTM Lat/Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAD83 / UTM zone 16N</td>
</tr>
</tbody>
</table>

Name of nearest water-body: Crystal Creek
Name of nearest Traditional Navigable Water (TNW): Fox River
Name of watershed or Hydrologic Unit Code (HUC): Fox River

Check if map/plan/diagram of review area and/or potential jurisdictional areas is/are available upon request.
Check if other sites (e.g., offshore migration sites, disposal sites, etc.) are associated with the action and are recorded on a different JD.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 14-Dec-2011
Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 404 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 RHA and flow of the lake
- Waters are permanently 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 "water 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. Inhabitance of waters of the U.S. in review area:
      - Water Name: LRC-2011-719 WOJS
      - Water Type(s): Present
      - Relative Parallel Waters (RPW): That flow directly or indirectly into TNWS
      - Wetlands: Generally abutting RPWS that flow directly or indirectly into TNWS
      - Wetlands: Generally abutting RPWS that flow directly or indirectly into TNWS

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

   Area: [sq ft]
   Linear: [in]

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 non-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

(a) Physical Characteristics
   (b) 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 NPM:
      Project Waters are aerial (straight) miles from TNW:
      Project waters are aerial (straight) miles from NPM:
      Project waters cover or serve as state boundaries:

   Explain:
   Identify flow route to TNW:

Tributary Stream Order, if any:
   Order: Subtributary Name
   - LRC-2011-719 WOUS

(b) General Tributary Characteristics:
   Subtributary Name: LRC-2011-719 WOUS
   Natural Tributary Name: X
   Artificial: X
   Explain: Believed to originate from the quarry operations dewatering facility, but may have been an existing feature before quarry pump:
   Manipulated:

Tributary properties with respect to top of bank (estimate):
   Tributary Name: LRC-2011-719 WOUS
   Width (ft): 3
   Depth (ft): 3
   Snow Slopes: 4
   (or greater)

Primary tributary substrate composition:
   Tributary Name: LRC-2011-719 WOUS
   Silt: X
   Sand: X
   Concrete: X
   Cobble: X
   Gravel: X
   Mud: X
   Bedrock: X
   Vegetation: X
   Other:

Tributary (conditions, spatial, presence, geometry, gradient):
   Tributary Name: LRC-2011-719 WOUS
   Condition: Steep banks, moderately stable
   Spatial: Relative straight
   Geometry: %
   Gradient:

(c) Flow:
   Tributary Name: LRC-2011-719 WOUS
   Provides for:
   Events Per Year:
   Flow Regime:
   Duration & Volume:

Surface Flow:
   Tributary Name: LRC-2011-719 WOUS
   Characteristics:

Subsurface Flow:
   Tributary Name: LRC-2011-719 WOUS
   Subsurface Flow: X
   Explain Findings:
   Dye (or other) Test:

Tributary Characteristics:
   Tributary Name: LRC-2011-719 WOUS
   Bed & Banks:
   OHWM:
   Discontinuous OHWM:
   Explain:

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

High Water Level indicated by:
   Not Applicable.

Mean High Water Mark indicated by:
   Not Applicable.

(iii) Chemical Characteristics:
   Characterize tributary (e.g., water color is clear, discolor, oily film; water quality: general watershed characteristics, etc.):
   Tributary Name: LRC-2011-719 WOUS
   Explain: X
   Identify specific pollutants, if known:

(iv) Biological Characteristics: Channel supports:
   Tributary Name: LRC-2011-719 WOUS
   Riparian Corridor Characteristics: Wetland Fringe Characteristics: Habitat
   narrow X narrow X

12/16/2011

https://orm.usace.army.mil/orm2/?p=106:34:2954725738289426::NO::
### Habitat Information (as indicated above)

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Habitat</th>
<th>Federally Listed Species</th>
<th>Explain Findings</th>
<th>Fish/Salmon Areas</th>
<th>Explain Findings</th>
<th>Other Environmentally Sensitive Species</th>
<th>Explain Findings</th>
<th>Aquatic/Wildlife Diversity</th>
<th>Explain Findings</th>
<th>Comment or Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2011-719</td>
<td>WO-US</td>
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<td>Note: Know not the report</td>
</tr>
</tbody>
</table>

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

**a. General Wetland Characteristics:**

- **Wetland Name**: LRC-2011-719 Wetland A
- **Size (acres)**: 10
- **Wetland Type**: Degraded adjacency
- **Wetland Qualify**: FGQ 9.5, mean C = 2.4
- **Cross or Serve as State Boundaries**: Explain

- **Wetland Name**: LRC-2011-719 Wetland B
- **Size (acres)**: 9
- **Wetland Type**: Wetland swamp
- **Wetland Qualify**: FGQ 13, C = 3.1
- **Cross or Serve as State Boundaries**: Explain

**b. General Flow Relationship with Non-TNW:**

- **Wetland Name**: Flow
- **Wetland Name**: LRC-2011-719 Wetland A
- **Flow**: Intermittent flow
- **Wetland Name**: LRC-2011-719 Wetland B
- **Flow**: Perennial flow

**Surface Flow:**

- **Wetland Name**: LRC-2011-719 Wetland A
- **Flow**: Overflow
- **Characteristics**: Water can flow over the surface but likely also flow through the soil

- **Wetland Name**: LRC-2011-719 Wetland B
- **Flow**: Intermittent
- **Characteristics**: Ground water is soggy in portions of the wetland and temperatures were below freezing with a dusting of snow on the ground. Indicator: that water may be seeping from adjacent areas

**Subsurface Flow:**

- **Wetland Name**: LRC-2011-719 Wetland A
- **Subsurface Flow**: Vertical
- **Characteristics**: Ground water is soggy in portions of the wetland and temperatures were below freezing with a dusting of snow on the ground. Indicator: that water may be seeping from adjacent areas

- **Wetland Name**: LRC-2011-719 Wetland B
- **Subsurface Flow**: Horizontal
- **Characteristics**: Ground water is soggy in portions of the wetland and temperatures were below freezing with a dusting of snow on the ground. Indicator: that water may be seeping from adjacent areas

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

- **Wetland Name**: LRC-2011-719 Wetland A
- **Directly Abutting**: Yes
- **Ecological Connection**: Yes

- **Wetland Name**: LRC-2011-719 Wetland B
- **Directly Abutting**: Yes
- **Ecological Connection**: Yes

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

- **Wetland Name**: LRC-2011-719 Wetland A
- **River Miles From TNW**: 1.2
- **Aerial Miles From TNW**: 1 (or less)
- **Flow Direction**: Wetland to navigable waters
- **Within Floodplain**: Yes

- **Wetland Name**: LRC-2011-719 Wetland B
- **River Miles From TNW**: 1.2
- **Aerial Miles From TNW**: 1 (or less)
- **Flow Direction**: Wetland to navigable waters
- **Within Floodplain**: Yes

#### (ii) Chemical Characteristics: Characteristic tributary (e.g., water color is clear, dissolved, oily film, water quality, general watershed characteristics, etc.):

- **Wetland Name**: Explain
- **Identify specific pollutants, if known**: Yes

#### (iii) Biological Characteristics: Wetland Supports:

- **Wetland Name**: Riparian Buffer Characteristics
- **Vegetation**: Explain

- **Wetland Name**: LRC-2011-719 Wetland A
- **Vegetation**: Yes

- **Wetland Name**: LRC-2011-719 Wetland B
- **Vegetation**: Yes

#### Habitat for:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Habitat</th>
<th>Federally Listed Species</th>
<th>Explain Findings</th>
<th>Fish/Salmon Area</th>
<th>Explain Findings</th>
<th>Other Environmentally Sensitive Species</th>
<th>Explain Findings</th>
<th>Aquatic/Wildlife Diversity</th>
<th>Explain Findings</th>
<th>Comment or Notes</th>
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</thead>
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<td>LRC-2011-719</td>
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<tr>
<td>LRC-2011-719</td>
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<td></td>
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<td>Note: Know not the report</td>
</tr>
</tbody>
</table>

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

All wetlandsc 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

applicable 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
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-2011-719 WOUS</td>
<td>PERENNIAL</td>
<td>Identified as a solid blue line tributary to Crystal Creek on the USGS Quad Map</td>
</tr>
</tbody>
</table>

<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-2011-719 WOUS Relatively Permanent Waters (RPW) that flow directly or indirectly into TNW</td>
<td>-</td>
<td>323.74848</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>323.74848</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-2011-719 Wetland A</td>
<td>PERENNIAL</td>
<td>Wetland one is hydrologically connect to WOUS 1</td>
</tr>
<tr>
<td>LRC-2011-719 Wetland B</td>
<td>PERENNIAL</td>
<td>water drains from wetland detention basin through ditch to the WOUS 1</td>
</tr>
</tbody>
</table>

<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-2011-719 Wetland A Wetlands directly abutting RPW that flow directly or indirectly into TNWs</td>
<td>768.90254</td>
<td>655 90254</td>
<td></td>
</tr>
<tr>
<td>LRC-2011-719 Wetland B Wetlands directly abutting RPW that flow directly or indirectly into TNWs</td>
<td>768.90254</td>
<td>1537.40528</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>1537.40528</td>
<td></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 wetlands in the review area:
   Not Applicable

8. 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 Deinition 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):
### 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>Maps, plans, photos or plat</td>
<td>JD Report</td>
<td></td>
</tr>
<tr>
<td>submitted by or on behalf of the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>applicant/consultant</td>
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<tr>
<td>Data sheets prepared/submitted</td>
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<tr>
<td>by or on behalf of the applicant/</td>
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<tr>
<td>consultant</td>
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<tr>
<td>U.S. Geological Survey</td>
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<tr>
<td>Hydrologic Atlas</td>
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<tr>
<td>U.S. Geological Survey Maps</td>
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<tr>
<td>State/provincial wetland inventory</td>
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<tr>
<td>Maps</td>
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<tr>
<td>FEMA/FRMS maps</td>
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</tr>
</tbody>
</table>

#### B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable

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1. States checked below shall be supported by completing the appropriate sections in Section I below.
2. For purposes of this form, an RPD/RA is defined as any body that is not a TRW and that typically flows year-round or seasonally (i.e., flows for at least a reasonable duration, e.g., typically 3 months).
3. Supporting documentation is presented in Section II.
4. Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and sewage lines generally and in the field.
5. A tributary can be described as a stream or brook that joins another, usually larger water body or waterway, usually at a point. If a tributary is itself part of another larger water body or waterway, then it is a subbranch.
6. A waterway or water body in the OHWM does not necessarily have jurisdiction over it; e.g., where the stream/tributary flows underground, or where the OHWM has been formed by development or agricultural activities. Where there is a break in the OHWM, a tributary is part of the water body's flow regime. A waterway or tributary defined as above and below the break:
7. Refer to Footnote #1.
8. Refer to Footnote #1.
9. To complete the analysis refer to the key in Section III of the Instructional Guidebook.
10. Refer to Section IV of the Instructional Guidebook.