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

SECTION I: BACKGROUND INFORMATION 
A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 20-Jul-2009 
B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00385-JD3 
C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: IL - Illinois 
County/parish/borough: Lake 
City: 
Lat: 42.29318 
Long: -88.2924 
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: 20-Jul-2009 
Field Determination Date(s): 30-Jun-2009 

SECTION II: SUMMARY OF FINDINGS 
A. RHA SECTION 10 DETERMINATION OF JURISDICTION 
There [ ] "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. 

Waters subject to the ebb and flow of the tide. 

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. 

Explain: 

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

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

<table>
<thead>
<tr>
<th>Water Name</th>
<th>Water Type(s) Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-385 Wetland 18</td>
<td>Wetlands directly abutting RPW that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>Wetlands directly abutting RPW that flow directly or indirectly into TNWs</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 5</td>
<td>Wetlands directly abutting RPW 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) 

https://orm.usace.army.mil/orm2/?p=106:34:1557888418203761::NO::  
7/20/2009
Linear: (m)

c. Limits (boundaries) of jurisdiction:
   - ORWHM 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:
Wetlands 20, 21 and fanned wetlands 4, 6, 7, and 8 were identified on-site with no link to navigable waters.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW
   Not Applicable.

2. Wetland Adjacent to TNW
   Not Applicable.

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

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

   (ii) Physical Characteristics
   (a) Relationship with TNW:
      - Tributary flows directly into TNW.
      - Tributary flows through [] tributaries before entering TNW.
      - Number of tributaries
      - Project waters are [] river miles from TNW.
      - Project waters are [] river miles from RPW.
      - Project Waters are [] aerial (straight) miles from TNW.
      - Project Waters are [] aerial (straight) miles from RPW.
      - Project waters cross or serve as state boundaries.
      - Explain: identify flow route to TNW.5

   Tributary Stream Order, if known:
   - 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):

https://orm.usace.army.mil/orm2/?p=10634:1557888418203761::NO:: 7/20/2009
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

(l) 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>LRC-2009-385 Wetland 18</td>
<td>1.35</td>
<td>Drainageway/Wet Meadow</td>
<td>Low quality dominated by reed canary grass (FQI 6.7). Low functional value for stormwater detention, nutrient removal, and sediment retention</td>
<td></td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>2.63</td>
<td>Drainageway/Wet Meadow</td>
<td>Low quality dominated by reed canary grass (FQI 7.3). Low functional value for stormwater detention, nutrient removal, and sediment retention</td>
<td></td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 5</td>
<td>.1</td>
<td>Farmed</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-385 Wetland 18</td>
<td>Intermittent flow.</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>Intermittent flow.</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 5</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>LRC-2009-385 Wetland 18</td>
<td>Confined</td>
<td>Flows through drainageway to the north and into wetland 19 through a culvert</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>Confined</td>
<td>Water flows through drainageway</td>
</tr>
</tbody>
</table>
LRC-2009-385 Wetland 5
Confined
Flows through wetland to east as part of wetland 19

Subsurface flow:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (or other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-385 Wetland 18</td>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 5</td>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(c) Wetland Adjacency Determination with Non-TNW:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Directly Abutting</th>
<th>Discrete Wetland Hydrologic Connection</th>
<th>Ecological Connection</th>
<th>Separated by Berm/Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-385 Wetland 18</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 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>LRC-2009-385 Wetland 18</td>
<td>2-5</td>
<td>2-5</td>
<td>Wetland to navigable waters</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>2-5</td>
<td>2-5</td>
<td>Wetland to navigable waters</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 5</td>
<td>2-5</td>
<td>2-5</td>
<td>Wetland to navigable waters</td>
<td>-</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Explain</th>
<th>Identify specific pollutants, if known</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-385 Wetland 18</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 5</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(iii) Biological Characteristics. Wetland supports:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Riparian Buffer Characteristics</th>
<th>Vegetation</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-385 Wetland 18</td>
<td>-</td>
<td>-</td>
<td>Vegetation for sediment retention, nutrient removal</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>-</td>
<td>X</td>
<td>Vegetation for sediment retention, nutrient removal</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 5</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 inessential 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 JURISDICCIONAL 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.

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-385 Wetland 18</td>
<td>SEASONAL</td>
<td>The on-site wetland 18 drains through wetland 19 and subsequently under IL Route 31 to the east. A drainage swale/wetland continues this flow to the east to ADID wetland U430. This wetland drains northeast overland and in underground drain tiles as part of an unnamed tributary (RPW) to the Fox River, the TNW.</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>SEASONAL</td>
<td>Wetland 19 drains under IL Route 31 to the east. A drainage swale/wetland continues this flow to the east to ADID wetland U430. This wetland drains northeast overland and in underground drain tiles as part of an unnamed tributary (RPW) to the Fox River, the TNW.</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 5</td>
<td>SEASONAL</td>
<td>Farmed wetland 5 is part of Wetland 19</td>
</tr>
</tbody>
</table>

Provide acreage estimates for jurisdictional wetlands in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-385 Wetland 18</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>5463.2556</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 19</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>10643.23128</td>
</tr>
<tr>
<td>LRC-2009-385 Wetland 5</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>404.6856</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>0</td>
<td>18511.17248</td>
</tr>
</tbody>
</table>

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

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

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

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

7. Impoundments of jurisdictional waters:
   Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:
   Not Applicable.
Identify water body and summarize rationale supporting determination:
Not Applicable.

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

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS
If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

Prior to the Jan 2001 Supreme Court decision in “SWANCC,” the review area would have been regulated based solely on the “Migratory Bird Rule” (MBR):

Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction (Explain):

Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:
Not Applicable.

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>Surveyed Wetland Boundary Map</td>
<td>Boundaries of all wetlands are shown</td>
</tr>
<tr>
<td>--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>USGS 10 Foot Contour Map</td>
<td>Shows project locations</td>
</tr>
<tr>
<td>--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>NRCS Swampbuster Map</td>
<td>Shows on-site wetlands with boundaries similar to what was mapped in surveyed wetland boundary map</td>
</tr>
<tr>
<td>--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>USGS Hydrologic Atlas</td>
<td>Shows floods of record for the area. The western extent of the RPW is shown east of the property</td>
</tr>
<tr>
<td>--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>McHenry County Wetland Inventory Map</td>
<td>Shows ADID wetlands mapped on-site</td>
</tr>
<tr>
<td>--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>McHenry County Soil Survey</td>
<td>Hydric soils are shown in the area of wetlands 18 and 19</td>
</tr>
<tr>
<td>--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>National Wetland Inventory Map</td>
<td>Some of the on-site wetlands are depicted on this map</td>
</tr>
</tbody>
</table>

B. ADDITIONAL COMMENTS TO SUPPORT JD:
Not Applicable.
7. ibid.
8. See Footnote 49.
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): 18-May-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00270-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: Lake
City:
Lat: 42.30417
Long: -87.988
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: 20-Jul-2009
Field Determination Date(s): 14-Jul-2008

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

<table>
<thead>
<tr>
<th>Water Name</th>
<th>Water Type(s) Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland 1</td>
<td>Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs</td>
</tr>
</tbody>
</table>

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

Area: (m²)
Linear: (m)


7/20/2009
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: 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 2-5 river miles from TNW.
         Project waters are 1 (or less) river miles from RPW.
         Project Waters are 1-2 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:
      Tributary on-site flows north into Buffalo Creek, which is a tributary to the Des Plaines River (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:

<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 1</td>
<td>.44</td>
<td>Vegetated wetland swale.</td>
<td>Low dominated by cattails.</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 1</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 1</td>
<td>Discrete and confined</td>
<td>Steep banked ditch &amp; swale with ponded water and slow flow.</td>
</tr>
</tbody>
</table>

Subsurface flow:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Subsurface Flow</th>
<th>Explain</th>
<th>Findings</th>
<th>Dye (or other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland 1</td>
<td>Unknown</td>
<td></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 1</td>
<td>No</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(d) Proximity (Relationship) to TNW:

<table>
<thead>
<tr>
<th>River Miles</th>
<th>Aerial Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetland Name</td>
<td>From TNW</td>
</tr>
<tr>
<td>--------------</td>
<td>----------</td>
</tr>
<tr>
<td>Wetland 1</td>
<td>2-5</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 1</td>
<td>-</td>
<td>sediment</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 1</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>Cattails in channel, willow shrubs along banks.</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 1

The wetland/drainage is a tributary to Buffalo 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 Plains 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 Plains River. Stormwater storage provided by the subject wetlands affect the frequency and extent of downstream flooding, decreasing flood peaks in the Des Plains 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 Plains 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:

7/20/2009
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 1</td>
<td>Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>1780.61664</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>0</td>
<td>1780.61664</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
(listed items shall be included in case file and, where checked and requested, appropriately reference below):

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

B. ADDITIONAL COMMENTS TO SUPPORT JD:

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The subject ditch &amp; swale is vegetated and naturalized, and filters out pollutants prior to reaching the Des Plaines River.</td>
</tr>
</tbody>
</table>

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 awates, 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.5 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

SECTION I: BACKGROUND INFORMATION

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

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00351-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: McHenry
City: Marengo
Lat: 42.25705
Long: -88.70454
Universal Transverse Mercator

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

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: 06-Aug-2009
Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

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

   Water Name LRC-2009-351 Kishwaukee River
   Water Type(s) Present Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

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

   c. Limits (boundaries) of jurisdiction:

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands.³
Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW
Not Applicable.

2. Wetland Adjacent to TNW
Not Applicable.

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

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

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

(ii) Physical Characteristics
(a) Relationship with TNW:
Tributary flows directly into TNW.
Tributary flows through [ ] tributaries before entering TNW.
Number of tributaries
Project waters are [ ] river miles from TNW.
Project waters are [ ] river miles from RPW.
Project Waters are [ ] aerial (straight)-miles from TNW.
Project waters are [ ] aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries.
Explain:
Identify flow route to TNW.⁵

Tributary Stream Order, if known:
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>LRC-2009-351</td>
<td>1</td>
<td>Emergent, scrub-shrub</td>
<td>Listed as ADID wetland</td>
<td></td>
</tr>
<tr>
<td>Kishwaukee River</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-351</td>
<td>Perennial flow</td>
<td></td>
</tr>
<tr>
<td>Kishwaukee River</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Surface flow is:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-351</td>
<td>Discrete and confined</td>
<td>Flow confined to river but overflows into abutting wetlands</td>
</tr>
<tr>
<td>Kishwaukee River</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subsurface flow:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (or other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-351</td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kishwaukee River</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(c) Wetland Adjacency Determination with Non-TNW:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Directly Abutting</th>
<th>Discrete Wetland Hydrologic Connection</th>
<th>Ecological Connection</th>
<th>Separated by Berm/Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-351</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kishwaukee River</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(d) Proximity (Relationship) to TNW:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>River Miles From TNW</th>
<th>Aerial Miles From TNW</th>
<th>Flow Direction</th>
<th>Within Floodplain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-351</td>
<td>30 (or more)</td>
<td>30 (or more)</td>
<td>Wetland to navigable waters</td>
<td></td>
</tr>
<tr>
<td>Kishwaukee River</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(ii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Explain</th>
<th>Identify specific pollutants, if known</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-351 Kishwaukee River</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(iii) Biological Characteristics. Wetland supports:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Riparian Buffer</th>
<th>Characteristics</th>
<th>Vegetation</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-351 Kishwaukee River</td>
<td>X</td>
<td>The on-site portion of the river is an old oxbow of the river. Listed as a high quality wetland on the ADID maps. It is also a class A stream</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:
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.

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Flow</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-351 Kishwaukee River</td>
<td>PERENNIAL</td>
<td>The Kishwaukee River is a perennial River with continuous, year-round flow</td>
</tr>
</tbody>
</table>

Provide acreage estimates for jurisdictional wetlands in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-351 Kishwaukee River</td>
<td>Wetlands directly abutting RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>4046.856</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>0</td>
<td>4046.856</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.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 (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):

   Data Reviewed | Source Label | Source Description
---|---|---
Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant | County Line Road Access | Kishwaukee River Corridor Conservation Area. Delineated wetland shown with proposed parking and path. No wetland impacts are shown.
Data sheets prepared/submitted by or on behalf of the applicant/consultant | Delineation data sheets | -
U.S. Geological Survey map(s). | 10 foot topographic map | -
State/Local wetland inventory map(s): | ADID wetland map | ADID K783 was identified as a high quality wetland
SECTION I: BACKGROUND INFORMATION

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

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00283-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IL - Illinois
County/parish/borough: McHenry
City: Woodstock
Lat: 42.34227
Long: -88.64418

Name of nearest waterbody: Rush Creek
Name of nearest Traditional Navigable Water (TNW): Rock River
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-Jul-2009
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

   Water Name   Water Type(s) Present
   LRC-2009-283 Rush Creek Wetlands   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:

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:3

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

SECTION III: CWA ANALYSIS
A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW
Not Applicable.

2. Wetland Adjacent to TNW
Not Applicable.

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

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

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

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

Explain:
Identify flow route to TNW.5

Tributary Stream Order, if known:

<table>
<thead>
<tr>
<th>Order</th>
<th>Tributary Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-283 Rush Creek Wetlands</td>
<td></td>
</tr>
</tbody>
</table>

(b) General Tributary Characteristics:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Natural</th>
<th>Artificial</th>
<th>Explain</th>
<th>Manipulated</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-283 Rush Creek Wetlands</td>
<td>X</td>
<td>-</td>
<td>The location of the drainage ditch north of Dunham Road has been relocated at some time from its original orientation. Rush Creek has also probably been channelized to some degree.</td>
<td>X</td>
<td>The location of the drainage ditch north of Dunham Road has been relocated at some time from its original orientation. Rush Creek has also probably been channelized to some degree.</td>
</tr>
</tbody>
</table>

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

| Tributary Name | Width (ft) | Depth (ft) | Side Slopes |
|----------------|------------|------------|-------------|-------------|
LRC-2009-283 Rush Creek Wetlands   25    -   -   -   -   -   -   -  -  -  

Primary tributary substrate composition:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Silt</th>
<th>Sands</th>
<th>Concrete</th>
<th>Cobble</th>
<th>Gravel</th>
<th>Muck</th>
<th>Bedrock</th>
<th>Vegetation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-283 Rush Creek Wetlands</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Condition\Stability</th>
<th>Run\Riffle\Pool Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-283 Rush Creek Wetlands</td>
<td>-</td>
<td>-</td>
<td>Relatively straight</td>
<td>-</td>
</tr>
</tbody>
</table>

(c) Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Provides for Events Per Year</th>
<th>Flow Regime</th>
<th>Duration &amp; Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-283 Rush Creek Wetlands</td>
<td>Seasonal flow</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Surface Flow is:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Surface Flow</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-283 Rush Creek Wetlands</td>
<td>Discrete and confined</td>
<td>Flow is confined to channel and is discrete through abutting wetlands</td>
</tr>
</tbody>
</table>

Subsurface Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (or other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-283 Rush Creek Wetlands</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Tributary has:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Bed &amp; Banks</th>
<th>OHWM</th>
<th>Discontinuous OHWM</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-283 Rush Creek Wetlands</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

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

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Explain</th>
<th>Identify specific pollutants, if known</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-283 Rush Creek Wetlands</td>
<td>-</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>LRC-2009-283 Rush Creek Wetlands</td>
<td>X</td>
<td>50 feet</td>
<td>X</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>LRC-2009-283 Rush Creek Wetlands</td>
<td>PERENNIAL</td>
<td>Solid line on USGS 10 foot contour line. Rush Creek is tributary to the Kishwaukee River, which is tributary to the Rock River, a TNW</td>
</tr>
</tbody>
</table>

Provide estimates for jurisdictional waters in the review area:

<table>
<thead>
<tr>
<th>Wetland Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC-2009-283 Rush Creek Wetlands</td>
<td>Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>2063.89656</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>0</td>
<td>2063.89656</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.
   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-JURISDICTIOINAL 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>
<tbody>
<tr>
<td>-Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>Flood Insurance Rate Map</td>
<td>Creek and wetlands are within the 100 year floodplain</td>
</tr>
<tr>
<td>-Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>McHenry ADID Wetland Map</td>
<td>Rush Creek is shown</td>
</tr>
<tr>
<td>-Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>Soil Survey Map</td>
<td>-</td>
</tr>
<tr>
<td>-Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant</td>
<td>Wetland Delineation Map</td>
<td>Shows delineated boundaries of on-site wetlands and waters</td>
</tr>
<tr>
<td>-U.S. Geological Survey Hydrologic Atlas</td>
<td>Hydorlogic Atlas</td>
<td>Shows floods of record for the area that extend from Rush Creek and continuing into the upstream channel</td>
</tr>
</tbody>
</table>

B. ADDITIONAL COMMENTS TO SUPPORT JD:
Not Applicable.

1. Boxes checked below shall be supported by completing the appropriate sections in Section III below.
2. For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least “seasonally” (e.g., typically 3 months).
3. Supporting documentation is presented in Section III F.
4. Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
5. Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
6. A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody’s flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
7. Ibid.
8. See Footnote #3.
9. To complete the analysis refer to the key in Section III.D 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.