

**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): 06-Nov-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00631-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
County/parish/borough: Lake
City:
Lat: 42.35423
Long: -87.87891
Universal Transverse Mercator
Folder UTM List
UTM list determined by folder location
 • NAD83 / UTM zone 38S
Waters UTM List
UTM list determined by waters location
 • NAD83 / UTM zone 38S

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW):

Name of watershed or Hydrologic Unit Code (HUC):

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 22-Dec-2009

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

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

Waters subject to the ebb and flow of the tide.

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

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

Water Name	Water Type(s) Present
WOUS 1	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Wetland A	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
Wetland G (Headwater Wetland)	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

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

Area: (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on:

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

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

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

(i) General Area Conditions:

Watershed size:

Drainage area:

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through tributaries before entering TNW.

:Number of tributaries

Project waters are river miles from TNW.

Project waters are river miles from RPW.

Project Waters are aerial (straight) miles from TNW.

Project waters are aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵

Tributary Stream Order, if known:

Order **Tributary Name**

2 WOUS 1

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
WOUS 1	X				

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

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

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
WOUS 1	X	-	-	-	X	-	-	-	-

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

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
WOUS 1	Somewhat eroded and cut water conveyance created from storm pipe outfall leading to wetland.	Absent	Relatively straight	1

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
WOUS 1	Perennial flow	20 (or greater)	Small flow most days, stronger flows during storm events.	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
WOUS 1	Discrete and confined	Narrow short channel that conveys flow to wetland.

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
WOUS 1	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWL	Discontinuous OHWM ⁷	Explain
WOUS 1	X	-	-	-

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

(iii) Chemical Characteristics:

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

Tributary Name	Explain	Identify specific pollutants, if known
WOUS 1	Water is cloudy and oily.	Parking lot run-off containing oils, salt and sediment.

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
WOUS 1	-	-	-	-	-

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland Name	Size (Acres)	Wetland Type	Wetland Quality	Cross or Serve as State Boundaries. Explain
Wetland A	.96	Emergent	Moderate to low, with non-natives.	-
Wetland G (Headwater Wetland)	14.65	Emergent	Moderate	-

(b) General Flow Relationship with Non-TNW:

Flow is:

Wetland Name	Flow	Explain
Wetland A	Intermittent flow.	-
Wetland G (Headwater Wetland)	Perennial flow.	-

Surface flow is:

Wetland Name	Flow	Characteristics
Wetland A	Overland sheetflow	Relatively flat wetland conveys water via outlet into channel.
Wetland G (Headwater Wetland)	Overland sheetflow	Headwater wetland receiving water from surrounding landscape and other wetlands.

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Wetland A	Unknown	-	-
Wetland G (Headwater Wetland)	Unknown	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
Wetland A	Yes	-	-	-
Wetland G (Headwater Wetland)	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
Wetland A	20-25	15-20	Wetland to navigable waters	50 - 100-year
Wetland G (Headwater Wetland)	20-25	15-20	Wetland to navigable waters	2-year or less

(ii) Chemical Characteristics:

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

Wetland Name	Explain	Identify specific pollutants, if known
Wetland A	-	Parking lot oil, salt and sediment.
Wetland G (Headwater Wetland)	-	Sediment and salt.

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
Wetland A	-	-	-	-
Wetland G (Headwater Wetland)	-	-	X	Large emergent wetland with open water for waterfowl.

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:

Wetland Name	Flow	Explain
WOUS 1	PERENNIAL	This area transports water from off-site drainage pipes and Wetland A.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
WOUS 1	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	45.72	-
Total:		45.72	0

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.

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

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Wetland A	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	3884.98176
Wetland G (Headwater Wetland)	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	59286.4404
Total:		0	63171.42216

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 (ie., 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	-	-
--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	-	-
--U.S. Geological Survey map(s).	-	-
--USDA Natural Resources Conservation Service Soil Survey.	-	-
--National wetlands inventory map(s).	-	-
--State/Local wetland inventory map(s):	-	-
--FEMA/FIRM maps	-	-
--Photographs	-	-
----Aerial	-	-
----Other	-	-
--Applicable/supporting case law	-	-
--Other information	-	-

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

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

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

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

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): June 1, 2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, Elgin Sports Complex **LRC-2009-299**

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Elgin Sports Complex
State: Illinois County/parish/borough: **Kane** City: Elgin
Center coordinates of site (lat/long in degree decimal format): Lat. 42.01987°N, Long. 88.29718° W.
Universal Transverse Mercator: NAD 83

Name of nearest waterbody: Tributary of the Fox River

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

Name of watershed or Hydrologic Unit Code (HUC): **Lower Fox (07120007)**

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

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- Office (Desk) Determination. Date: 10/03/2008
 Field Determination. Date(s): 10/03/2008

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: Defined in People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, slip op. at 7 (S.D.Ill. Jan. 20, 1979).

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
 Wetlands adjacent to TNWs
 Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 Non-RPWs that flow directly or indirectly into TNWs
 Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 Impoundments of jurisdictional waters
 Isolated (interstate or intrastate) waters, including isolated wetlands

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

Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: 2.37 acres.

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

Elevation of established OHWM (if known): unknown.

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

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

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW: **Pick List**.

Summarize rationale supporting determination: As defined in People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, slip op. at 7 (S.D.Ill. Jan. 20, 1979).

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: **Pick List**
Drainage area: **Pick List**
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

- Tributary flows directly into TNW.
- Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵:
Tributary stream order, if known:

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

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

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

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

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

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

- | | | |
|--|--|-----------------------------------|
| <input type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> Other. Explain: | | |

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

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

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

Describe flow regime:

Other information on duration and volume:

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

Subsurface flow: **Pick List**. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> Bed and banks | |
| <input type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input type="checkbox"/> other (list): | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: | |

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

- | | |
|--|--|
| <input checked="" type="checkbox"/> High Tide Line indicated by: | <input checked="" type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) **Chemical Characteristics:**

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

Explain:

Identify specific pollutants, if known:

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

⁷Ibid.

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

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

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

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 2.37 acres

Wetland type. Explain: Shallow marsh and wet to wet-mesic lowland hardwoods; disturbed fresh wet meadow.

Wetland quality. Explain: Low Vegetative Quality (FQI of 14.08 and 7.27).

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

(b) General Flow Relationship with Non-TNW:

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

Surface flow is: **Discrete and confined**

Characteristics: Overland sheet flow to wetlands, to concentrated ponds, to channel or storm sewer, to Fox River.

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

- Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

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

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

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **1-2** river miles from TNW.

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

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

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

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: water is clear.

Identify specific pollutants, if known: Unknown.

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

Riparian buffer. Characteristics (type, average width):

Vegetation type/percent cover. Explain: Shallow marsh and wet to wet-mesic lowland hardwoods; disturbed fresh wet meadow.

Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

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

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

Approximately (2.37) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Name/ID</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Name/ID</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
western wetland	N	0.27			
central wetland	N	1.41			
eastern wetland	N	0.69			

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

- TNWs: linear feet width (ft), Or, acres.
- Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Applies to western wetland (Soil Sample #3 wetland). National Weather Service Climate Data - 05/27/2009 Chicago-O'Hare Report attached. USGS precipitation data attached (May 2008 to May 2009).
- Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Applies to central wetlands (Soil Sample #1 wetland) and eastern wetlands (Soil Sample #4 wetland). National Weather Service Climate Data -05/27/2009 Chicago-O'Hare Report attached. USGS precipitation data attached (May 2008 to May 2009).

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

- Tributary waters: **1500** linear feet **6** width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

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

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

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
 Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Wetland Delineation Report showing wetland boundaries and the proximity of the Fox River is enclosed. A Delineated Wetland Boundary exhibit is enclosed.

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

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

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

7. Impoundments of jurisdictional waters.⁹

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

- Demonstrate that impoundment was created from "waters of the U.S.," or
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
 from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
 which are or could be used for industrial purposes by industries in interstate commerce.
 Interstate isolated waters. Explain:
 Other factors. Explain:

Identify water body and summarize rationale supporting determination:

⁸See Footnote # 3.

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

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

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

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
Identify type(s) of waters: .
- Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

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

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

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

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Surveyed Wetland Boundary.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: Floods in Elgin Quadrangle, Illinois, HA-147.
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: .
- USDA Natural Resources Conservation Service Soil Survey. Citation: Soil Survey of Kane County, Illinois (2003).
- National wetlands inventory map(s). Cite name: US Fish & Wildlife Service--Wetlands Online Mapper.
- State/Local wetland inventory map(s): Kane County ADID, Pick List.
- FEMA/FIRM maps: FIRM 17089C0168F.
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Kane County Aerial Photograph, 2007.
or Other (Name & Date): Site Photographs, 10/03/2008.
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, (S.D.Ill. Jan. 20, 1979)
- Applicable/supporting scientific literature: .
- Other information (please specify): National Weather Service Climate Data -05/27/2008 Chicago-O'Hare Report. USGS precipitation data (May 2008 to May 2009).

B. ADDITIONAL COMMENTS TO SUPPORT JD:

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

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

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

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
County/parish/borough: Will
City:
Lat: 41.6084
Long: -88.2097
Universal Transverse Mercator Folder UTM List
UTM list determined by folder location
 • NAD83 / UTM zone 37S
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: 11-Jan-2010

Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

Waters subject to the ebb and flow of the tide.

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

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

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

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

Area: (m²)

Linear: (m)

c. Limits (boundaries) of Jurisdiction:

based on:
 OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW
 Not Applicable.

2. Wetland Adjacent to TNW
 Not Applicable.

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

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

(i) General Area Conditions:

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

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.
 Tributary flows through tributaries before entering TNW.
 :Number of tributaries

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

Project waters cross or serve as state boundaries.

Explain:
Identify flow route to TNW:⁵

Tributary Stream Order, if known:

Order	Tributary Name
1	DuPage River

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
DuPage River	X				

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
DuPage River	100	10	3:1

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
DuPage River	X	X	-	-	X	X	-	-	-

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

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
DuPage River	Tributary is relatively stable.	None in the immediate area.	Relatively straight	-

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
DuPage River	Perennial flow	20 (or greater)	River flows year-round.	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
DuPage River	Discrete and confined	Defined bed and banks.

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
DuPage River	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
DuPage River	X	-	-	-

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

(iii) Chemical Characteristics:

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

Tributary Name	Explain	Identify specific pollutants, if known
DuPage River	Tributary is typical for the highly developed urban area, so is discolored and will occasionally have an oily sheen.	Road salts, grease, oil; sediment, lawn chemicals.

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
DuPage River	-	-	-	-	-

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:

Wetland Name	Flow	Explain
DuPage River	PERENNIAL	The DuPage River is a large river that flows year-round.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
DuPage River	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	15.24	-
Total:		15.24	0

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 (ie., 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	-	-
--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).	-	-
--FEMA/FIRM maps	-	-
--Photographs	-	-
----Aerial	-	-
----Other	-	-
--Applicable/supporting case law	-	-
--Other information	-	-

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

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

- ¹-Boxes checked below shall be supported by completing the appropriate sections in Section III below.
- ²-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
- ³-Supporting documentation is presented in Section III.F.
- ⁴-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
- ⁵-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
- ⁶-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
- ⁷-Ibid.
- ⁸-See Footnote #3.
- ⁹-To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
- ¹⁰-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

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

SECTION I: BACKGROUND INFORMATION

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

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
 County/parish/borough: DuPage
 City:
 Lat: 41.86771
 Long: -88.16116
 Universal Transverse Mercator
Folder UTM List
UTM list determined by folder location
 • NAD83 / UTM zone 37S
Waters UTM List
UTM list determined by waters location
 • NAD83 / UTM zone 37S

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW):

Name of watershed or Hydrologic Unit Code (HUC):

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

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

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

Water Name	Water Type(s) Present
Winfield Creek	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:³

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

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

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

(i) General Area Conditions:

Watershed size:

Drainage area:

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics

(a) Relationship with TNW:

- Tributary flows directly into TNW.
 Tributary flows through tributaries before entering TNW.
 :Number of tributaries

Project waters are river miles from TNW.

Project waters are river miles from RPW.

Project Waters are aerial (straight) miles from TNW.

Project waters are aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵

Tributary Stream Order, if known:

Order	Tributary Name
1	Winfield Creek

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
Winfield Creek	X	-	-	-	-

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Winfield Creek	15	3	3:1

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
Winfield Creek	-	-	-	-	-	-	-	-	X

Other Explained:

Tributary Name	Other Explained
Winfield Creek	Unknown, could not see bottom.

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

Tributary Name	Condition/Stability	Run/Riffle/Pool Complexes	Geometry	Gradient (%)
Winfield Creek	Stable, with herbs, trees and shrubs along the bank.	Absent in this stretch.	Relatively straight	1

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
Winfield Creek	Perennial flow	20 (or greater)	Creek flows year-round.	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Winfield Creek	Discrete and confined	Creek flows in defined banks.

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Winfield Creek	No	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM?	Explain
Winfield Creek	X	X	-	-

Tributaries with OHWM⁶ - (as indicated above)

Tributary Name	OHWM	Clear	Litter	Changes in Soil	Destruction Vegetation	Shelving	Wrack Line	Matted/Absent Vegetation	Sediment Sorting	Leaf Litter	Scour	Sediment Deposition	Flow Events	Water Staining	Changes Plant	Other
Winfield Creek	X	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-

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

High Tide Line indicated by:

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:

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

Tributary Name	Explain	Identify specific pollutants, if known
Winfield Creek	Water color is cloudy.	Sediment

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Winfield Creek	X	25 foot vegetated corridor	-	-	-

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:

Wetland Name	Flow	Explain
Winfield Creek	PERENNIAL	Strong flowing creek shows up in multiple aeriels.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Winfield Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	30.48	-
Total:		30.48	0

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 (ie., 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	-	-
--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	-	-
--U.S. Geological Survey map(s).	-	-
--USDA Natural Resources Conservation Service Soil Survey.	-	-
--National wetlands inventory map(s).	-	-
--State/Local wetland inventory map(s):	-	-
--FEMA/FIRM maps	-	-
--Photographs	-	-
---Aerial	-	-
--Other information	-	-

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description
Site visit to confirm flow on 08 Dec 2009.

¹-Boxes checked below shall be supported by completing the appropriate sections in Section III below.
²-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (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**

SECTION I: BACKGROUND INFORMATION

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

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
County/parish/borough: McHenry
City: Chemung Township
Lat: 42.4658
Long: -88.65735
Universal Transverse Mercator Folder UTM List
UTM list determined by folder location
 • NAD83 / UTM zone 38S
Waters UTM List
UTM list determined by waters location
 • NAD83 / UTM zone 38S

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

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 12-Jan-2010

Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

Waters subject to the ebb and flow of the tide.

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

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

Water Name	Water Type(s) Present
LRC-2009-00607 Piskasaw Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
LRC-2009-00607 Wetland 1	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
LRC-2009-00607 Wetland 2	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
LRC-2009-00607 Wetland 3	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
LRC-2009-00607 Wetland 4	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

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

Area: (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: 1987 Delineation Manual.

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

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

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

(i) General Area Conditions:

Watershed size: []

Drainage area: []

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [] tributaries before entering TNW.

:Number of tributaries

Project waters are [] river miles from TNW.

Project waters are [] river miles from RPW.

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

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

Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵

Tributary Stream Order, if known:

Order	Tributary Name
-	LRC-2009-00607 Piskasaw Creek

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
LRC-2009-00607 Piskasaw Creek	-	-	-	X	The creek has been straightened

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
LRC-2009-00607 Piskasaw Creek	35	3	4:1 (or greater)

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
LRC-2009-00607 Piskasaw Creek	X	X	-	-	-	-	-	-	-

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

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
LRC-2009-00607 Piskasaw Creek	Stable	-	Relatively straight	-

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
LRC-2009-00607 Piskasaw Creek	Perennial flow	-	Continuous flow stream	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
LRC-2009-00607 Piskasaw Creek	Discrete and confined	-

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
LRC-2009-00607 Piskasaw Creek	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM?	Explain
LRC-2009-00607 Piskasaw Creek	X	-	-	-

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

(iii) Chemical Characteristics:

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

Tributary Name	Explain	Identify specific pollutants, if known
LRC-2009-00607 Piskasaw Creek	clear	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
LRC-2009-00607 Piskasaw Creek	X	-	X	-	-

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:

Wetland Name	Size (Acres)	Wetland Type	Wetland Quality	Cross or Serve as State Boundaries. Explain
LRC-2009-00607 Wetland 1	.27	Emergent	FQI 12.3	-
LRC-2009-00607 Wetland 2	.03	emergent	13.3	-
LRC-2009-00607 Wetland 3	.05	Emergent fringe	FQI 13.3	-
LRC-2009-00607 Wetland 4	.02	Emergent fringe	FQI 13.3	-

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

Wetland Name	Flow	Explain
LRC-2009-00607 Wetland 1	Perennial flow.	-
LRC-2009-00607 Wetland 2	Perennial flow.	-
LRC-2009-00607 Wetland 3	Perennial flow.	-
LRC-2009-00607 Wetland 4	Perennial flow.	-

Surface flow is:

Wetland Name	Flow	Characteristics
LRC-2009-00607 Wetland 1	Discrete and confined	-
LRC-2009-00607 Wetland 2	Discrete and confined	-
LRC-2009-00607 Wetland 3	-	-
LRC-2009-00607 Wetland 4	Discrete and confined	-

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
LRC-2009-00607 Wetland 1	Unknown	-	-
LRC-2009-00607 Wetland 2	Unknown	-	-
LRC-2009-00607 Wetland 3	Unknown	-	-
LRC-2009-00607 Wetland 4	Unknown	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
LRC-2009-00607 Wetland 1	Yes	-	-	-
LRC-2009-00607 Wetland 2	Yes	-	-	-
LRC-2009-00607 Wetland 3	Yes	-	-	-
LRC-2009-00607 Wetland 4	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
LRC-2009-00607 Wetland 1	30 (or more)	30 (or more)	Wetland to navigable waters	-
LRC-2009-00607 Wetland 2	30 (or more)	30 (or more)	Wetland to navigable waters	-
LRC-2009-00607 Wetland 3	30 (or more)	30 (or more)	Wetland to navigable waters	-
LRC-2009-00607 Wetland 4	30 (or more)	30 (or more)	Wetland to navigable waters	-

(ii) Chemical Characteristics:

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

Wetland Name	Explain	Identify specific pollutants, if known
LRC-2009-00607 Wetland 1	-	-
LRC-2009-00607 Wetland 2	-	-
LRC-2009-00607 Wetland 3	-	-
LRC-2009-00607 Wetland 4	-	-

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
LRC-2009-00607 Wetland 1	X	-	-	-
LRC-2009-00607 Wetland 2	X	-	-	-
LRC-2009-00607 Wetland 3	X	-	-	-
LRC-2009-00607 Wetland 4	X	-	-	-

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:

Wetland Name	Flow	Explain
LRC-2009-00607 Piskasaw Creek	PERENNIAL	Solid line on USGS

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
LRC-2009-00607 Piskasaw Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	-	319.701624
Total:		0	319.701624

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.

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

Wetland 3 PERENNIAL Western fringe wetland abutting Piskasaw Creek
 LRC-2009-00607 Wetland 4 PERENNIAL Wetland abutting east side of Piskasaw Creek on south side Lawrence Road

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
LRC-2009-00607 Wetland 1	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	1072.41684
LRC-2009-00607 Wetland 2	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	137.593104
LRC-2009-00607 Wetland 3	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	190.202232
LRC-2009-00607 Wetland 4	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	72.843408
Total:		0	1473.055584

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 (ie., 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	Aerial - Data Points	Delineated wetland boundary with data point locations
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	Photos	Photos from data point locations
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	-	-
----Office concurs with data sheets/delineation report	Data sheets	-
--U.S. Geological Survey map(s).	10-foot contour map	-
--Photographs	-	-
----Aerial	1939 aerial	-

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 08-Dec-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2008-00608-JD3

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
 County/parish/borough: Will
 City:
 Lat: 41.58998
 Long: -87.99505
 Universal Transverse Mercator Folder UTM List
 UTM list determined by folder location
 • NAD83 / UTM zone 37S
 Waters UTM List
 UTM list determined by waters location
 • NAD83 / UTM zone 37S

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

Check if map/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:
 Field Determination Date(s): 30-Jul-2009

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 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-2008-608 WL 1	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: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: 51 acres
 Drainage area: 51 acres
 Average annual rainfall: 32 inches
 Average annual snowfall: 40 inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [] tributaries before entering TNW.

Number of tributaries

Project waters are 5-10 river miles from TNW.

Project waters are 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:⁵

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

Tributary Stream Order, if known:

Order	Tributary Name
1	LRC-2008-608 WL 1

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
LRC-2008-608 WL 1	X				

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
LRC-2008-608 WL 1	2	5	4:1 (or greater)

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
LRC-2008-608 WL 1	X								

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

Tributary Name	Condition/Stability	Run/Riffle/Pool Complexes	Geometry	Gradient (%)
LRC-2008-608 WL 1	stable	none	Meandering	2

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
LRC-2008-608 WL 1	Intermittent but not seasonal flow	20 (or greater)		

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
LRC-2008-608 WL 1	Discrete	

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
LRC-2008-608 WL 1	Unknown		

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
LRC-2008-608 WL 1		X		

Tributaries with OHWM⁸ - (as indicated above)

Tributary Name	OHWM	Clear	Litter	Changes in Soil	Destruction Vegetation	Shelving	Wrack Line	Matted/Absent Vegetation	Sediment Sorting	Leaf Litter	Scour	Sediment Deposition	Flow Events	Wat Stain
LRC-2008-608 WL 1	X			X	X			X						

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

(iii) Chemical Characteristics:

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

Tributary Name	Explain	Identify specific pollutants, if known
LRC-2008-608 WL 1	Water color is clear and does not appear to be polluted, nor oily. The watershed is agricultural.	

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

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
LRC-2008-608 WL 1	X	wooded, 25 feet			

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 sign chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequ 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 speci (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 sign

Findings for: LRC-2008-608 WL 1

Wetland 1 is a small wooded stream with associated wetlands that flows southeast into a tributary of Fraction Run Creek. Fraction Run Creek is an intermittent drainageway described on the USGS topographic of the drainageway averages 3 feet in width and its banks average 1 - 3 feet in height. Water depth has been observed at approximately 6" deep. The bed of the drainageway is silty material. The stream appea 2005 aerial photograph. Water flowing in the stream eventually flows to the I&M Canal via a tributary to North Fraction Creek, North Fraction Creek and Fraction Creek. Downstream from Wetland 1, approximal Tributary to North Fraction Creek has been piped. The hydrologic connection of Wetland 1 to the I&M Canal demonstrates the ability of the tributary to carry pollutants, flood waters, nutrients and organic materi decrease of sedimentation, pollutants, flooding and nutrients, in addition to the habitat provided by the stream, provides a positive effect to the downstream relatively permanent waters and traditional navigable combination with other area wetlands and tributaries, significantly affect the chemical, physical and biological integrity of the I&M Canal. Stormwater storage provided by Wetland 1 affects the frequency and ext flooding, which in turn impacts navigation, downstream bank erosion and sedimentation. The sediment and pollutant/toxicant retention provided by the subject waters has a direct positive effect on the I&M Can- and aquatic food webs. According to the IDNR, the I&M Canal supports bass, crappie, bluegill, carp, catfish and bullhead habitat. These factors contribute to the finding of a significant nexus between the Wella

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:⁸

Not Applicable

Provide estimates for jurisdictional waters in the review area:

Tributary Name	Type	Size (Linear) (m)	Size (Area) (m ²)
LRC-2008-608 WL 1	Non-RPWs that flow directly or indirectly into TNWs	-	687.96552
Total:		0	687.96552

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, I 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 (ie., presence of migratory birds, presence of endangered 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	-	-
-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	-	-
-National wetlands inventory map(s)	-	-
-FEMA/FIRM maps	-	-
-Photographs	-	-
---Aerial	-	-

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 CHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the CHWM 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 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.

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

SECTION I: BACKGROUND INFORMATION

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

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2008-00608-JD2

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
 County/parish/borough: Will
 City:
 Lat: 41.58998
 Long: -87.99505
 Universal Transverse Mercator
 Folder UTM List
 UTM list determined by folder location
 • NAD83 / UTM zone 37S
 Waters UTM List
 UTM list determined by waters location
 • NAD83 / UTM zone 37S

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

Check if map/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:
 Field Determination Date(s): 30-Jul-2009

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 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-2008-608 WL 2	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs

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

Area: (m²)
 Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on:
 OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW
 Not Applicable.

2. Wetland Adjacent to TNW
 Not Applicable.

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

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

(i) General Area Conditions:
 Watershed size: 51 acres
 Drainage area: 51 acres
 Average annual rainfall: 32 inches
 Average annual snowfall: 40 inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [] tributaries before entering TNW.

Number of tributaries

Project waters are 5-10 river miles from TNW.

Project waters are 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:⁵

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

Tributary Stream Order, if known:

Order	Tributary Name
2	LRC-2008-608 WL 2

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
LRC-2008-608 WL 2				X	Portions of the tributary have been channelized and tiled.

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
LRC-2008-608 WL 2	4	1	4:1 (or greater)

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
LRC-2008-608 WL 2	X								

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

Tributary Name	Condition/Stability	Run/Riffle/Pool Complexes	Geometry	Gradient (%)
LRC-2008-608 WL 2	Stable, small drainage way with non-eroding banks.	none	Meandering	2

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
LRC-2008-608 WL 2	Perennial flow	20 (or greater)		

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
LRC-2008-608 WL 2	Discrete	The drainage way is shown on the USGS quad as an intermittent stream.

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
LRC-2008-608 WL 2	Unknown		

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
LRC-2008-608 WL 2	X	X		

Tributaries with OHWM⁶ - (as indicated above)

Tributary Name	OHWM	Clear	Litter	Changes In Soil	Destruction Vegetation	Shelving	Wrack Line	Matted/Absent Vegetation	Sediment Sorting	Leaf Litter	Scour	Sediment Deposition	Flow Events	Wat Stain
LRC-2008-608 WL 2	X				X			X						

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

(iii) Chemical Characteristics:

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

Tributary Name	Explain	Identify specific pollutants, if known
LRC-2008-608 WL 2	Water appears to be clear and unpolluted. Watershed is rural and suburban.	unknown

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
LRC-2008-608 WL 2	X	Portions of the riparian corridor are wooded.			

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

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:

Wetland Name	Flow	Explain
LRC-2008-608 WL 2	PERENNIAL	-

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
LRC-2008-608 WL 2	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	-	728.43408
Total:		0	728.43408

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, I 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 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 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.

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 15-Dec-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2009-00606-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
 County/parish/borough: McHenry
 City: Spring Grove
 Lat: 42.44055
 Long: -88.23722
 Universal Transverse Mercator Folder UTM List
 UTM list determined by folder location
 • NAD83 / UTM zone 38S
 Waters UTM List
 UTM list determined by waters location
 • NAD83 / UTM zone 38S
 Name of nearest waterbody: Nippersink Creek
 Name of nearest Traditional Navigable Water (TNW): Fox River
 Name of watershed or Hydrologic Unit Code (HUC): Fox 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: 15-Dec-2009
 Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURSDICTION

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 JURSDICTION.

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-2009-606 Nippersink Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
LRC-2009-606 Wetland 1	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
LRC-2009-606 Wetland 2	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
LRC-2009-606 Wetland 3	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

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

Area: (m²)
 Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: 1987 Delineation Manual.
 OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW
 Not Applicable.

2. Wetland Adjacent to TNW
 Not Applicable.

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

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

(i) General Area Conditions:
 Watershed size: []
 Drainage area: []

Average annual rainfall: inches
 Average annual snowfall: inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.
 Tributary flows through tributaries before entering TNW.
 Number of tributaries

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

Project waters cross or serve as state boundaries

Explain:

Identify flow route to TNW:⁵

Tributary Stream Order, if known:

Order	Tributary Name
-	LRC-2009-606 Nippersink Creek

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
LRC-2009-606 Nippersink Creek	X				

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
LRC-2009-606 Nippersink Creek	100	4	4:1 (or greater)

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
LRC-2009-606 Nippersink Creek									

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

Tributary Name	Condition	Stability	Run/Riffle	Pool Complexes	Geometry	Gradient (%)
LRC-2009-606 Nippersink Creek					Meandering	

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
LRC-2009-606 Nippersink Creek	Perennial flow			

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
LRC-2009-606 Nippersink Creek	Discrete and confined	

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
LRC-2009-606 Nippersink Creek	Unknown		

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM?	Explain
LRC-2009-606 Nippersink Creek		X		

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

High Tide Line indicated by:
 Not Applicable.

Mean High Water Mark indicated by:
 Not Applicable.

(iii) Chemical Characteristics:

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

Tributary Name	Explain	Identify specific pollutants, if known
LRC-2009-606 Nippersink Creek	High quality stream with good water quality	

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
LRC-2009-606 Nippersink Creek	X				X

Habitat for: (as indicated above)

Tributary Name	Habitat	Federally Listed Species	Explain Findings	Fish/Spawn Areas	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic Wildlife Diversity	Explain Findings
LRC-2009-606 Nippersink Creek	X	X	-	-	-	-	-	X	-

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland Name	Size (Acres)	Wetland Type	Wetland Quality	Cross or Serve as State Boundaries. Explain
LRC-2009-606 Wetland 1	0	Emergent	Low FQI 6.7	-
LRC-2009-606 Wetland 2	0	Emergent Riparian	Low to moderate - FQI 12.3	-
LRC-2009-606 Wetland 3	.02	Emergent Riparian	Moderate - FQI 16.3	-

(b) General Flow Relationship with Non-TNW:

Flow is:

Wetland Name	Flow	Explain
LRC-2009-606 Wetland 1	Perennial flow	-
LRC-2009-606 Wetland 3	Perennial flow	-

Surface flow is:

Wetland Name	Flow	Characteristics
LRC-2009-606 Wetland 1	Discrete	-
LRC-2009-606 Wetland 2	-	-
LRC-2009-606 Wetland 3	Discrete	-

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
LRC-2009-606 Wetland 1	Unknown	-	-
LRC-2009-606 Wetland 2	-	-	-
LRC-2009-606 Wetland 3	Unknown	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
LRC-2009-606 Wetland 1	Yes	-	-	-
LRC-2009-606 Wetland 2	Yes	-	-	-
LRC-2009-606 Wetland 3	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
LRC-2009-606 Wetland 1	2-5	2-5	Wetland to navigable waters	-
LRC-2009-606 Wetland 2	2-5	2-5	Wetland to navigable waters	-
LRC-2009-606 Wetland 3	2-5	2-5	Wetland to navigable waters	-

(ii) Chemical Characteristics:

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

Wetland Name	Explain	Identify specific pollutants, if known
LRC-2009-606 Wetland 1	-	-
LRC-2009-606 Wetland 2	-	-
LRC-2009-606 Wetland 3	-	-

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
LRC-2009-606 Wetland 1	-	-	-	-
LRC-2009-606 Wetland 2	X	-	-	-
LRC-2009-606 Wetland 3	X	-	-	-

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 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:

Wetland Name	Flow	Explain
LRC-2009-606 Nippersink Creek	PERENNIAL	Nippersink Creek is a continuously flowing, perennial stream

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
LRC-2009-606 Nippersink Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	-	578.700408
Total:		0	578.700408

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.

Wetland Name	Flow	Explain
LRC-2009-606 Wetland 1	PERENNIAL	Wetland is an island in the middle of the creek.
LRC-2009-606 Wetland 2	PERENNIAL	Wetland abutting RPW
LRC-2009-606 Wetland 3	PERENNIAL	Wetland abutting RPW

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
LRC-2009-606 Wetland 1	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	12.140568
LRC-2009-606 Wetland 2	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	16.187424
LRC-2009-606 Wetland 3	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	89.030832
Total:		0	117.358824

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 (ie., 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	Soil Survey Map	
-Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	McHenry ADID Map	ADID N87
-Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	Delineation Map	Boundary shown on aerial

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 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

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 12/21/09

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Big Timber Rd, East of Powers Rd and North of Higgins Rd
State: Illinois County/parish/borough: **Kane** City: Rutland Township
Center coordinates of site (lat/long in degree decimal format): Lat. 42.10154°N, Long. -88.40568° W.
Universal Transverse Mercator: NAD 83

Name of nearest waterbody: Tributary to Eakin Creek

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

Name of watershed or Hydrologic Unit Code (HUC): **Kishwaukee (07090006)**

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: 12/10/2009

Field Determination. Date(s): 12/10/2009

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: Defined in People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, slip op. at 7 (S.D.Ill. Jan. 20, 1979).

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

Non-RPWs that flow directly or indirectly into TNWs

Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

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

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: 36 acres.

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

Elevation of established OHWM (if known):

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

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

Explain:

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

I. TNW

Identify TNW: **Pick List**.

Summarize rationale supporting determination: As defined in People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, slip op. at 7 (S.D.Ill. Jan. 20, 1979).

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: **Pick List**
Drainage area: **Pick List**
Average annual rainfall: _____ inches
Average annual snowfall: _____ inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

- Tributary flows directly into TNW.
- Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵:
Tributary stream order, if known:

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

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

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

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

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

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

- | | | |
|--|--|-----------------------------------|
| <input type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> Other. Explain: | | |

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

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

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

Describe flow regime:

Other information on duration and volume:

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

Subsurface flow: **Pick List**. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> Bed and banks | |
| <input type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input type="checkbox"/> other (list): | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: | |

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

- | | |
|--|--|
| <input type="checkbox"/> High Tide Line indicated by: | <input type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) **Chemical Characteristics:**

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

Explain:

Identify specific pollutants, if known:

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

⁷Ibid.

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

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

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

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: _____ acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- Directly abutting
- Not directly abutting
 - Discrete wetland hydrologic connection. Explain:
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

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

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

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

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

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

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Name/ID</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Name/ID</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
----------------	------------------------------	------------------------	----------------	------------------------------	------------------------

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: The Tributary to Eakin Creek is a RPW.
- Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

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

- Tributary waters: _____ li near feet _____ width (ft).
 Other non-wetland waters: _____ acres.
Identify type(s) of waters: _____

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

- Tributary waters: _____ li near feet _____ width (ft).
 Other non-wetland waters: _____ acres.
Identify type(s) of waters: _____

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

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **The Tributary to Eakin Creek is a RPW.**
 Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: _____

Provide acreage estimates for jurisdictional wetlands in the review area: **36** acres.

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

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: _____ acres.

7. Impoundments of jurisdictional waters.⁹

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

- Demonstrate that impoundment was created from "waters of the U.S.," or
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
 from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
 which are or could be used for industrial purposes by industries in interstate commerce.
 Interstate isolated waters. Explain: _____
 Other factors. Explain: _____

Identify water body and summarize rationale supporting determination: _____

⁸See Footnote # 3.

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

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

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

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
Identify type(s) of waters: .
- Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

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

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

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

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Delineation dated 12/1/2008.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas: Pick List,
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Pingree Grove 7.5", 1992, Pick List, Pick List,
- USDA Natural Resources Conservation Service Soil Survey. Citation: **Soil Survey of Kane County, Illinois (2003).**
- National wetlands inventory map(s). Cite name: Pingree Grove,
- State/Local wetland inventory map(s): **Kane County ADID, Pick List,**
- FEMA/FIRM maps:
 - 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): 2005.
or Other (Name & Date): Site Visit 12/10/2009.
- Previous determination(s). File no. and date of response letter: 200200242.
- Applicable/supporting case law: People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, (S.D.Ill. Jan. 20, 1979)
- Applicable/supporting scientific literature:
- Other information (please specify): 2" Topographic Survey by Kane County.

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

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

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): December 23, 2009

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Bruner Forest Preserve Bridge Replacement

State: Illinois County/parish/borough: **Kane** City: Carpentersville
Center coordinates of site (lat/long in degree decimal format): Lat. 42.07586°N, Long. 88.17537° W.
Universal Transverse Mercator: NAD 83

Name of nearest waterbody: Unnamed Tributary to the Fox River

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

Name of watershed or Hydrologic Unit Code (HUC): **Upper Fox (07120006)**

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: 12/21/2009

Field Determination. Date(s): 11/17/2009

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

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

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

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

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

Non-wetland waters: 150 linear feet: 4 width (ft) and/or acres.

Wetlands: 0.08 acres.

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

Elevation of established OHWM (if known): unknown.

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

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

Explain:

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW: **Pick List**.

Summarize rationale supporting determination: As defined in People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, slip op. at 7 (S.D.Ill. Jan. 20, 1979).

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

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

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

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵:

Tributary stream order, if known:

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

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

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

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

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

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

- | | | |
|--|--|-----------------------------------|
| <input type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> Other. Explain: | | |

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

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

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

Describe flow regime:

Other information on duration and volume:

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

Subsurface flow: **Pick List**. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

- | | | |
|---|---|--|
| <input type="checkbox"/> Bed and banks | | |
| <input type="checkbox"/> OHWM ⁶ (check all indicators that apply): | | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris | |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation | |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line | |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting | |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour | |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events | |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community | |
| <input type="checkbox"/> other (list): | | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: | | |

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

- | | |
|--|--|
| <input checked="" type="checkbox"/> High Tide Line indicated by: | <input checked="" type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) **Chemical Characteristics:**

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

Explain:

Identify specific pollutants, if known:

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

⁷Ibid.

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

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

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

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.08 acres

Wetland type. Explain: Fresh wet meadow.

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

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

(b) General Flow Relationship with Non-TNW:

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

Surface flow is: **Confined**

Characteristics: Infiltrates to groundwater / sheet flow to channel.

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

- Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- Directly abutting
- Not directly abutting
 - Discrete wetland hydrologic connection. Explain:
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

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

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

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

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

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: water is clear.

Identify specific pollutants, if known: Unknown.

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

- Riparian buffer. Characteristics (type, average width): 10 feet.
- Vegetation type/percent cover. Explain: Fresh wet meadow.
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

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

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

Approximately (0.08) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Name/ID</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Name/ID</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Wetland Unnamed Trib to Fox River	Y	0.08 50 ft.			

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
 - TNWs: linear feet width (ft), Or, acres.
 - Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
 - Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Site observation November 17, 2009: water flowing, depth approximately 6". The waterway is identified on the Hydrologic Atlas Flood of Record Map and National Wetland Inventory Map; FEMA map show proximity to the Fox River (all attached). National Weather Service Climate Data -12/21/2009 Chicago-O'Hare Report attached.
 - Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

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

- Tributary waters: **150** linear feet **4** width (ft).
 - Other non-wetland waters: acres.
- Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

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

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

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 - Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Wetland Delineation Report showing wetland boundaries and the proximity of the tributary to the Fox River is enclosed. A Delineated Wetland Boundary exhibit is enclosed.**
 - Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: **0.08** acres.

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

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

7. Impoundments of jurisdictional waters.⁹

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

- Demonstrate that impoundment was created from “waters of the U.S.,” or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: .
- Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

⁸See Footnote # 3.

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

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

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

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
Identify type(s) of waters:
- Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
- Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

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

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

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

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Surveyed Wetland Boundary.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas: Floods in Crystal Lake Quadrangle, Illinois, HA-253.
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name:
- USDA Natural Resources Conservation Service Soil Survey. Citation: Soil Survey of Kane County, Illinois (2003).
- National wetlands inventory map(s). Cite name: US Fish & Wildlife Service--Wetlands Online Mapper.
- State/Local wetland inventory map(s): Kane County ADID, Pick List.
- FEMA/FIRM maps: FIRM 17089C0070H.
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Kane County Aerial Photograph, 2002.
or Other (Name & Date): Site Photographs, 11/17/2009.
- Previous determination(s). File no. and date of response letter:
- Applicable/supporting case law: People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, (S.D.Ill. Jan. 20, 1979)
- Applicable/supporting scientific literature:
- Other information (please specify): National Weather Service Climate Data -12/21/2009 Chicago-O'Hare Report.

B. ADDITIONAL COMMENTS TO SUPPORT JD: