

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

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 19-Aug-2011

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
County/parish/borough: Cook
City: Northbrook
Lat: 42.13222
Long: -87.79149
Universal Transverse Mercator Folder UTM List
UTM list determined by folder location
• NAD83 / UTM zone 16N
Waters UTM List
UTM list determined by waters location

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

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 09-Nov-2011

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

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

Waters subject to the ebb and flow of the tide.

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

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

Water Name Water Type(s) Present
Wetland B (Tributary) 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: (m^2)

Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on:

OHWL 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: 422075 acres

Drainage area: 370845 acres

Average annual rainfall: 36.27 inches

Average annual snowfall: 38 inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [] tributaries before entering TNW.

:Number of tributaries

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

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

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

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

Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵

Tributary flows east into TNW.

Tributary Stream Order, if known:

Order	Tributary Name
1	Wetland B (Tributary)

(b) General Tributary Characteristics:

Tributary is:

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

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Wetland B (Tributary)	1	.25	2:1

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
Wetland B (Tributary)	X	-	-	-	-	-	-	-	-

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

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
Wetland B (Tributary)	Stable small tributary in a wooded area.	Absent	Relatively straight	1

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
Wetland B (Tributary)	Seasonal flow	11-20	Tributary picks up water from roads and lawns during and after rain events, and transports flood waters to the TNW.	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Wetland B (Tributary)	-	-

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Wetland B (Tributary)	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
Wetland B (Tributary)	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
Wetland B (Tributary)	Water is slightly cloudy.	Road salt and lawn chemicals.

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Wetland B (Tributary)	-	-	-	-	-

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:
Not Applicable.

(b) General Flow Relationship with Non-TNW:

Flow is:
Not Applicable.

Surface flow is:
Not Applicable.

Subsurface flow:
Not Applicable.

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

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

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

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

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

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

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

C. SIGNIFICANT NEXUS DETERMINATION

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

Findings for: Wetland B (Tributary)

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

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

1. TNWs and Adjacent Wetlands:
Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Wetland Name	Flow	Explain
Wetland B (Tributary)	SEASONAL	Tributary flows most of the growing season, especially during and after rainfall.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Wetland B (Tributary)	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	Patrick Engineering, Inc.	Wetland Report
--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	-	-
--FEMA/FIRM maps	-	-
--Photographs	-	-
----Aerial	-	-
--Applicable/supporting case law	-	-
--Other information	-	-

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

Site visit on November 1, 2011.

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

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

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 27-Oct-2011

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
County/parish/borough: Will
City:
Lat: 41.34228
Long: -88.18238
Universal Transverse Mercator Folder UTM List
UTM list determined by folder location
 • NAD83 / UTM zone 16N
Waters UTM List
UTM list determined by waters location

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

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 02-Nov-2011

Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

Waters subject to the ebb and flow of the tide.

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

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

Water Name	Water Type(s) Present
Prairie Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Wetland A-2	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
Wetland A-3	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
Wetland A-4	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
Wetland A-5	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
1	Prairie Creek

(b) General Tributary Characteristics:

Tributary is:

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

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

--	--	--	--

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Prairie Creek	30	3	3:1

Primary tributary substrate composition:

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

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

Tributary Name	Condition/Stability	Run/Riffle/Pool Complexes	Geometry	Gradient (%)
Prairie Creek	Tributary banks are vegetated, and so it's very stable.	Absent	Relatively straight	1

(c) Flow:

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

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Prairie Creek	Discrete and confined	Shallow banks with wetland vegetation then steeper banks in upland.

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Prairie Creek	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
Prairie 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
Prairie Creek	Water moves slowly, and has some sediment, so is cloudy.	Sediment, road salt and oils.

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Prairie Creek	-	-	X	Herbaceous wetland fringe for a few feet, then woods.	-

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-2	.08	Emergent	Moderate FQI of 11-12.	-
Wetland A-3	.08	Emergent	Moderate FQI of 11-12.	-
Wetland A-4	.04	Emergent	Moderate FQI of 11-12.	-
Wetland A-5	.01	Emergent	Moderate FQI of 11-12.	-

(b) General Flow Relationship with Non-TNW:

Flow is:

Wetland Name	Flow	Explain
Wetland A-2	Perennial flow.	-
Wetland A-3	Perennial flow.	-
Wetland A-4	Perennial flow.	-
Wetland A-5	Perennial flow.	-

Surface flow is:

Wetland Name	Flow	Characteristics
Wetland A-2	Discrete and confined	Defined bed and bank.
Wetland A-3	Discrete and confined	Defined bed & bank.
Wetland A-4	Discrete and confined	Defined bed & bank.
Wetland A-5	Discrete and confined	Defined bed & bank.

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Wetland A-2	Unknown	-	-
Wetland A-3	Unknown	-	-
Wetland A-4	Unknown	-	-
Wetland A-5	Unknown	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
Wetland A-2	Yes	-	-	-
Wetland A-3	Yes	-	-	-
Wetland A-4	Yes	-	-	-
Wetland A-5	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
Wetland A-2	1 (or less)	1 (or less)	Wetland to navigable waters	2-year or less
Wetland A-3	1 (or less)	1 (or less)	Wetland to navigable waters	2-year or less
Wetland A-4	1 (or less)	1 (or less)	Wetland to navigable waters	2-year or less
Wetland A-5	1 (or less)	1 (or less)	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-2	-	Sediment, road salt and oils.
Wetland A-3	-	Sediment, road salt and oils.
Wetland A-4	-	Sediment, road salt and oils.
Wetland A-5	-	Sediment, road salt and oils.

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
Wetland A-2	X	Several feet of wetland then upland woods for a large buffer on both sides of creek.	-	-
Wetland A-3	X	Several feet of riparian wetland then upland woods for large buffer several hundred feet.	-	-
Wetland A-4	X	Several feet of riparian wetland then upland woods for large buffer several hundred feet.	-	-
Wetland A-5	X	Several feet of riparian wetland then upland woods for large buffer several hundred feet.	-	-

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
Prairie Creek	PERENNIAL	Creek flows year-round.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Prairie 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.⁵
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-2	PERENNIAL	Creek flows year-round.
Wetland A-3	PERENNIAL	Creek flows year-round.
Wetland A-4	PERENNIAL	Creek flows year-round.

Wetland A-5	PERENNIAL	Creek flows year-round.
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Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Wetland A-2	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	339.935904
Wetland A-3	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	339.935904
Wetland A-4	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	141.63996
Wetland A-5	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	44.515416
Total:		0	866.027184

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	Bollinger, Lach & Associates, Inc.	-
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	-	-
----Office concurs with data sheets/delineation report	-	-
--Corps navigable waters study	-	-
--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	-	-
----Other	-	-
--Applicable/supporting case law	-	-

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 II.F.

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

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

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

⁷-Ibid.

⁸-See Footnote #3.

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

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

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

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 21-Oct-2011

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
County/parish/borough: Will
City:
Lat: 41.2633
Long: -88.2322
Universal Transverse Mercator Folder UTM List
UTM list determined by folder location
 • NAD83 / UTM zone 16N
Waters UTM List
UTM list determined by waters location

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW):

Name of watershed or Hydrologic Unit Code (HUC):

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 14-Dec-2011

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

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

Waters subject to the ebb and flow of the tide.

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

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

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

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

Area: (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on:

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands: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 Cermak Ditch

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
Cermak Ditch	-	X	Ditch cut for drainage originally.	-	-

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Cermak Ditch	5	1	2:1

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
Cermak Ditch	-	X	-	-	X	-	-	-	-

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

Tributary Name	Condition/Stability	Run/Riffle/Pool Complexes	Geometry	Gradient (%)
Cermak Ditch	Mostly stable, with some bank sloughing due to loam soils with high sand content.	Small riffles, but no pool areas.	Relatively straight	1

(c) Flow:

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

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Cermak Ditch	Discrete and confined	Wide channel with tall banks.

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Cermak Ditch	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWL	Discontinuous OHWM ⁷	Explain
Cermak Ditch	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
Cermak Ditch	Water color is very clear.	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Cermak Ditch	X	30'	-	-	-

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
Cermak Ditch	PERENNIAL	Ditch flows year-round.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Cermak Ditch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	152.4	-
Total:		152.4	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
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- U.S. Geological Survey map(s). - -
- USDA Natural Resources Conservation Service Soil Survey. - -
- Applicable/supporting case law - -
- Other information - -

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

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

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

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

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 03-Oct-2011

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

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

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

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

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

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

Waters subject to the ebb and flow of the tide.

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

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

Water Name	Water Type(s) Present
North Wetland	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

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

Area: (m²)
Linear: (m)

c. Limits (boundaries) of jurisdiction:**based on:****OHWB 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:** 934048 acres**Drainage area:** 836673 acres**Average annual rainfall:** 34.36 inches**Average annual snowfall:** 37.4 inches**(ii) Physical Characteristics****(a) Relationship with TNW:**

Tributary flows directly into TNW.

Tributary flows through [] tributaries before entering TNW.

:Number of tributaries

Project waters are 1-2 river miles from TNW.**Project waters are** 1-2 river miles from RPW.**Project Waters are** 1-2 aerial (straight) miles from TNW.**Project waters are** 1-2 aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:**Identify flow route to TNW:⁵**

Wetland drains via small channel directly to the Des Plaines River to the west.

Tributary Stream Order, if known:

Not Applicable.

(b) General Tributary Characteristics:**Tributary is:**

Not Applicable.

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

Not Applicable.

Primary tributary substrate composition:

Not Applicable.

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

Not Applicable.

(c) Flow:
Not Applicable.

Surface Flow is:
Not Applicable.

Subsurface Flow:
Not Applicable.

Tributary has:
Not Applicable.

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

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

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

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:

Wetland Name	Size (Acres)	Wetland Type	Wetland Quality	Cross or Serve as State Boundaries. Explain
North Wetland	.2	Emergent	Low to Moderate	-

(b) General Flow Relationship with Non-TNW:

Flow is:

Wetland Name	Flow	Explain
North Wetland	Intermittent flow.	-

Surface flow is:

Wetland Name	Flow	Characteristics
North Wetland	Discrete and confined	Wetland drains via a small ditch.

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
North Wetland	Unknown	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
North Wetland	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
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North Wetland 1-2 1-2 Wetland to navigable waters 50 - 100-year

(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
North Wetland	-	Unknown

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
North Wetland	-	-	-	-

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

All wetlands being considered in the cumulative analysis:

Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

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

Findings for: North Wetland

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

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:**1. TNWs and Adjacent Wetlands:**

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

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

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
North Wetland	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs	-	809.3712
Total:		0	809.3712

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

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

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

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

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

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 24-Oct-2011

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
County/parish/borough: Cook
City: Richton Park
Lat: 41.49182
Long: -87.7718
Universal Transverse Mercator Folder UTM List
UTM list determined by folder location
• NAD83 / UTM zone 16N
Waters UTM List
UTM list determined by waters location

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

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

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

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

Waters subject to the ebb and flow of the tide.

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

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

Table with 2 columns: Water Name, Water Type(s) Present. Rows include Hickory Creek Tributary and Wetland 2.

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	Hickory Creek Tributary

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
Hickory Creek Tributary	-	-	-	X	Straightened

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Hickory Creek Tributary	2	.5	3:1

Primary tributary substrate composition:

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

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

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
Hickory Creek Tributary	Tributary banks are mowed, but bottom is stable.	Absent	Relatively straight	2

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
Hickory Creek Tributary	Seasonal flow	20 (or greater)	Flows throughout growing season; may dry up in winter.	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Hickory Creek Tributary	Discrete and confined	Steep and deep banks to point channel.

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Hickory Creek Tributary	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
Hickory Creek Tributary	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
Hickory Creek Tributary	Water color is clear.	Farm fertilizers and pesticides from the south.

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Hickory Creek Tributary	-	-	-	-	-

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 2	.1	Forested	Low	-

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

Wetland Name	Flow	Explain
Wetland 2	Perennial flow.	-

Surface flow is:

Wetland Name	Flow	Characteristics
Wetland 2	Overland sheetflow	Wetland is wide area around both sides of the creek.

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Wetland 2	Unknown	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
Wetland 2	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
Wetland 2	30 (or more)	30 (or more)	Wetland to navigable waters	2 - 5-year

(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 2	-	Farm pesticides and fertilizers.

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
Wetland 2	-	-	-	-

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
Hickory Creek Tributary	PERENNIAL	Tributary flows continuously during the growing season.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Hickory Creek Tributary	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.

Wetland Name	Flow	Explain
Wetland 2	SEASONAL	Wetland is abutting creek, so has water flowing throughout growing season.

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Wetland 2	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	404.6856
Total:		0	404.6856

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):

Not Applicable.

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable.

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

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

³-Supporting documentation is presented in Section III.F.

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

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

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

⁷-Ibid.

⁸-See Footnote #3.

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

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

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

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 24-Oct-2011

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
County/parish/borough: Cook
City: Richton Park
Lat: 41.49182
Long: -87.7718
Universal Transverse Mercator Folder UTM List
UTM list determined by folder location
• NAD83 / UTM zone 16N
Waters UTM List
UTM list determined by waters location

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

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

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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
Wetland 3 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

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

Area: (m²)
Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on:

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands: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: 934048 acres

Drainage area: 836673 acres

Average annual rainfall: 38.43 inches

Average annual snowfall: 31.5 inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [] tributaries before entering TNW.

:Number of tributaries

Project waters are 30 (or more) river miles from TNW.

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

Project Waters are 30 (or more) aerial (straight) miles from TNW.

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

Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵

Wetland to tributary of Hickory Creek to Hickory Creek to Des Plaines River.

Tributary Stream Order, if known:

Not Applicable.

(b) General Tributary Characteristics:

Tributary is:

Not Applicable.

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

Not Applicable.

Primary tributary substrate composition:

Not Applicable.

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

Not Applicable.

(c) Flow:
Not Applicable.

Surface Flow is:
Not Applicable.

Subsurface Flow:
Not Applicable.

Tributary has:
Not Applicable.

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

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

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

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

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

(b) General Flow Relationship with Non-TNW:

Flow is:
Not Applicable.

Surface flow is:
Not Applicable.

Subsurface flow:
Not Applicable.

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

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

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

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

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

All wetlands being considered in the cumulative analysis:

Wetland Name	Directly Abuts	Size (Area) (m ²)
--------------	----------------	-------------------------------

Wetland 3	No	607.0284
Total:		607.0284

Summarize overall biological, chemical and physical functions being performed:

Wetland Name	Functional Summary
Wetland 3	Wetland 3 is a high quality aquatic resource, and provides habitat and water quality benefits to the adjacent Hickory Creek tributary, and the TNW.

C. SIGNIFICANT NEXUS DETERMINATION

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

Findings for: Wetland 3

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

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

1. TNWs and Adjacent Wetlands:

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

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

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Wetland 3	Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs	-	607.0284
Total:		0	607.0284

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

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

7. Impoundments of jurisdictional waters: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).	-	-
--National wetlands inventory map(s).	-	-
--FEMA/FIRM maps	-	-

--Photographs	-	-
---Aerial	-	-
--Applicable/supporting case law	-	-
--Other information	-	-

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

Site visit on 21 Nov. 2011.

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

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

SECTION I: BACKGROUND INFORMATION**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):** 28-Nov-2011**B. DISTRICT OFFICE, FILE NAME, AND NUMBER:** Chicago District, LRC:2011-00540-JD1**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State : IL - Illinois
County/parish/borough: McHenry
City: Seneca Township
Lat: 42.25852
Long: -88.51109
Universal Transverse Mercator
Folder UTM List
UTM list determined by folder location
 ♦ NAD83 / UTM zone 16N
Waters UTM List
UTM list determined by waters location
 ♦ NAD83 / UTM zone 16N

Name of nearest waterbody: Kishwaukee River
Name of nearest Traditional Navigable Water (TNW): Rock River
Name of watershed or Hydrologic Unit Code (HUC): K shwaukee 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: 28-Nov-2011

Field Determination Date(s):

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

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

Waters subject to the ebb and flow of the tide.

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

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

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

Water Name	Water Type(s) Present
LRC-2011-540 Kishwaukee River	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs

b. Identify (estimate) size of waters of the U.S. in the review area:Area: (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 [] Inbarities before entering TNW.

:Number of Inbarities

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 aenal(straight) miles from RPW.

Project waters cross or serve as state bourdaries.

Explain:

Identify flow route to TNW:⁵

Tributary Stream Order, if known:

Order	Tributary Name
-	LRC-2011-540 Kishwaukee River

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
LRC-2011-540 Kishwaukee River	-	-	-	X	Natural stream with evidence of straightening in proximity to the project

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
LRC-2011-540 Kishwaukee River	35	2	4:1 (or greater)

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
LRC-2011-540 Kishwaukee River	X	-	-	-	-	-	-	-	-

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

Tributary Name	Condition	Stability	Run	Riffle	Pool	Complexes	Geometry	Gradient (%)
LRC-2011-540 Kishwaukee River	-	-	-	-	-	-	Relatively straight	1

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
LRC-2011-540 Kishwaukee River	Perennial flow	20 (or greater)	-	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
LRC-2011-540 Kishwaukee River	Discrete and confined	-

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
LRC-2011-540 Kishwaukee River	-	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM?	Explain
LRC-2011-540 Kishwaukee 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
LRC-2011-540 Kishwaukee River	clear in photographs. This stream is identified as being high quality (ADID)	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics
LRC-2011-540 Kishwaukee River	X	Narrow, mostly confined to channel in this area, broader downstream	X	minimal, mostly on east side of bridge in immediate area

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 Fi
LRC-2011-540 Kishwaukee River	X							X	ADID stream

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 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-2011-540 Kishwaukee River	PERENNIAL	Solid blue line on USGS 10 foot quad map. Located within the 100-year flood zone. Known as a high quality perennial stream.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
LRC-2011-540 Kishwaukee River	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	-	485.62272
Total:		0	485.62272

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	-	-
--U.S. Geological Survey map(s).	-	-
--National wetlands inventory map(s).	-	-
--State/Local wetland inventory map(s):	-	-
--FEMA/FIRM maps	-	-
--Photographs	-	-
----Aerial	-	-
----Other	Site photos	-

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 and 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

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 23-Sep-2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2011-00655-JD3

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

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

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

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

SECTION 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
Calumet Union Drainage Ditch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Markham Ditch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Metra Ditch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
West Ditch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs

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

Area: (m²)
 Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on:
 OHWM Elevation: (if known)

2. Non-regulated waters/wetlands: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	Calumet Union Drainage Ditch
2	Metra Ditch
2	West Ditch
2	Markham Ditch

(b) General Tributary Characteristics:

Tributary is:

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

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Calumet Union Drainage Ditch	15	1	Vertical (1:1 or less)
Markham Ditch	-	-	-
Metra Ditch	5	1	2:1
West Ditch	3	.5	3:1

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
Calumet Union Drainage Ditch	X	-	-	-	-	-	-	-	-
Markham Ditch	X	X	-	-	-	-	-	-	-
Metra Ditch	X	X	-	-	-	-	-	-	-
West Ditch	X	X	-	-	-	-	-	-	-

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

Tributary Name	Condition/Stability	Run/Riffle/Pool Complexes	Geometry	Gradient (%)
Calumet Union Drainage Ditch	Within the rail yard it has vertical concrete walls and a concrete bottom.	Absent	Relatively straight	1
Markham Ditch	Tributary fairly stable with vegetated banks; no eroding visible.	Absent	Relatively straight	1
Metra Ditch	Relatively stable with vegetated banks with trees and shrubs.	Absent	Relatively straight	1
West Ditch	Tributary is relatively stable due to vegetation.	Absent	Relatively straight	1

(c) Flow:

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

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Calumet Union Drainage Ditch	Discrete and confined	Concrete lined channel.
Markham Ditch	Discrete and confined	Defined bed and bank hold water in creek
Metra Ditch	Discrete and confined	Defined bed and banks.
West Ditch	Discrete and confined	Steep banks off of railyard.

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Calumet Union Drainage Ditch	No	-	-
Markham Ditch	Unknown	-	-
Metra Ditch	Unknown	-	-

West Ditch Unknown -

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM?	Explain
Calumet Union Drainage Ditch	-	X	-	-
Markham Ditch	X	-	-	-
Metra Ditch	X	-	-	-
West Ditch	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	Wa Sta
Calumet Union Drainage Ditch	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
Calumet Union Drainage Ditch	Water is cloudy, with trash	Sediment, road salt and oils
Markham Ditch	Water color is slightly cloudy.	Sediment and grease/oils from railyard.
Metra Ditch	Water color is slightly cloudy.	Sediment; grease and oils from railroad yard.
West Ditch	Water color is slightly discolored due to sediment.	Grease and oils from railyard.

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Calumet Union Drainage Ditch	-	-	X	Some vegetation growing on silt bars throughout area.	-
Markham Ditch	X	Tree and shrub lined channel, about 30 feet wide total.	-	-	-
Metra Ditch	X	30 feet with trees and shrubs.	-	-	-
West Ditch	-	-	-	-	-

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

(j) 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

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 species (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
Calumet Union Drainage Ditch	PERENNIAL	Ditch flows year-round.
Markham Ditch	PERENNIAL	Creek flows year-round.
Meira Ditch	PERENNIAL	Ditch flows year-round.
West Ditch	SEASONAL	Ditch collects water from surrounding railyard, so flows throughout the growing season.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Calumet Union Drainage Ditch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	304.8	-
Markham Ditch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	304.8	-
Meira Ditch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	304.8	-
West Ditch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	457.2	-
Total:		1371.6	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, 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)

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	Shaw Environmental, Inc.	Routine Wetland Assessment Report - September 9, 2011.
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	-	-
----Office concurs with data sheets/delineation report	-	-
--Corps navigable waters study	-	-
--U.S. Geological Survey Hydrologic Atlas	-	-
----USGS 8 and 12 digit HUC maps	-	-
--U.S. Geological Survey map(s).	-	-
--National wetlands inventory map(s).	-	-
--FEMA/FIRM maps	-	-
--Photographs	-	-
----Aerial	-	-
----Other	-	-
--Applicable/supporting case law	-	-
--Other information	-	-

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

Site visit to walk all wetland areas on November 4, 2011 with Kan Harris.

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

²For 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)

³Supporting documentation is presented in Section III F

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

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

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices) Where there is a break in the 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

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

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

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 23-Sep-2011

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State :	IL - Illinois
County/parish/borough:	Cook
City:	
Lat:	41.58394
Long:	-87.65175
Universal Transverse Mercator	<u>Folder UTM List</u> <i>UTM list determined by folder location</i>
	• NAD83 / UTM zone 16N
	<u>Waters UTM List</u> <i>UTM list determined by waters location</i>

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

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 10-Nov-2011

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

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

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

Area: (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: 462669 acres

Drainage area: 10292 acres

Average annual rainfall: 38.43 inches

Average annual snowfall: 31.5 inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [] tributaries before entering TNW.

Number of tributaries

Project waters are 2-5 river miles from TNW.

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

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

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

Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵

Wetlands drain via on-site ditch to the Calumet Union Drainage Canal, then to the Calumet River, a TNW.

Tributary Stream Order, if known:

Not Applicable.

(b) General Tributary Characteristics:

Tributary is:

Not Applicable.

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

Not Applicable.

Primary tributary substrate composition:

Not Applicable.

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

Not Applicable.

(c) Flow:
Not Applicable.

Surface Flow is:
Not Applicable.

Subsurface Flow:
Not Applicable.

Tributary has:
Not Applicable.

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

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

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

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:

Wetland Name	Size (Acres)	Wetland Type	Wetland Quality	Cross or Serve as State Boundaries. Explain
Wetland 4	2	Emergent	Low, FQA = 1.4	-
Wetland 6	3	Emergent	Low, FQA - 1.0	-

(b) General Flow Relationship with Non-TNW:

Flow is:

Wetland Name	Flow	Explain
Wetland 4	Intermittent flow.	-
Wetland 6	Intermittent flow.	-

Surface flow is:

Wetland Name	Flow	Characteristics
Wetland 4	Overland sheetflow	Large flat wetland with a pipe outlet at the northern end, receives water via upland ditch between RR track and roads.
Wetland 6	Overland sheetflow	Large broad wetland takes drainage from railyard and outlets via pipe at north end.

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Wetland 4	Unknown	-	-
Wetland 6	Unknown	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
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Wetland 4	Yes	-	-	-
Wetland 6	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
Wetland 4	2-5	2-5	Wetland to navigable waters	50 - 100-year
Wetland 6	2-5	2-5	Wetland to navigable waters	50 - 100-year

(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 4	-	Chemicals from rail yard.
Wetland 6	-	Grease and oils from locomotive repair and maintenance.

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
Wetland 4	-	-	X	Mostly cattails, provides some bird habitat.
Wetland 6	-	-	X	Mostly cattails, provides some bird habitat.

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

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

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

C. SIGNIFICANT NEXUS DETERMINATION

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

Findings for: Wetland 4, Wetland 6

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

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

1. TNWs and Adjacent Wetlands:
Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

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

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Wetland 4	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs	-	8093.712
Wetland 6	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs	-	12140.568
Total:		0	20234.28

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	Shaw Environmental, Inc.	Routine Wetland Assessment Report - September 9, 2011.
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	-	-
---Office concurs with data sheets/delineation report	-	-
--Corps navigable waters study	-	-
--U.S. Geological Survey Hydrologic Atlas	-	-
---USGS 8 and 12 digit HUC maps	-	-
--U.S. Geological Survey map(s).	-	-
--National wetlands inventory map(s).	-	-
--FEMA/FIRM maps	-	-
--Photographs	-	-
---Aerial	-	-
---Other	-	-
--Applicable/supporting case law	-	-
--Other information	-	-

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

November 4, 2011 site visit to walk all wetland areas with Kari Harris.

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

²-For purposes of 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): 14-Dec-2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, LRC-2011-00719-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
 County/parish/borough: McHenry
 City: Lake in the Hills
 Lat: 42 17454
 Long: -98.30323
 Universal Transverse Mercator Folder UTM List
UTM list determined by folder location
 • NAD83 / UTM zone 16N
Waters UTM List
UTM list determined by waters location
 • NAD83 / UTM zone 16N
 Name of nearest waterbody: Crystal 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: 14-Dec-2011
 Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

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

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

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

Water Name	Water Type(s) Present
LRC-2011-719 WOUS	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
LRC-2011-719 Wetland A	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
LRC-2011-719 Wetland B	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
-	LRC-2011-719 WOUS

(b) General Tributary Characteristics:

Tributary is:	Natural	Artificial	Explain	Manipulated	Explain
LRC-2011-719 WOUS	-	-	-	X	Believed to originate from the quarry operations dewatering facility, but may have been an existing feature before quarry pumping

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
LRC-2011-719 WOUS	5	3	4:1 (or greater)

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
LRC-2011-719 WOUS	-	X	-	X	-	-	-	-	-

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

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
LRC-2011-719 WOUS	steep banks, moderately stable	-	Relatively straight	2

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
LRC-2011-719 WOUS	Perennial flow	20 (or greater)	-	-

Surface Flow is:

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

Subsurface Flow:

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

Tributary has:

Tributary Name	Bed & Banks	OHWL	Discontinuous OHWM ⁷	Explain
LRC-2011-719 WOUS	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-2011-719 WOUS	water clear	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
LRC-2011-719 WOUS	X	narrow	X	narrow	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-2011-719 WOUS	X	-	-	-	-	-	-	X	minnow note the report

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-2011-719 Wetland A	.19	Degraded sedge meadow	FQI = 9.3, mean C = 2.4	-
LRC-2011-719 Wetland B	.19	Wetland swale	FQI = 13, C = 3.1	-

(b) General Flow Relationship with Non-TNW:

Flow is:

Wetland Name	Flow	Explain
LRC-2011-719 Wetland A	Intermittent flow.	-
LRC-2011-719 Wetland B	Perennial flow.	-

Surface flow is:

Wetland Name	Flow	Characteristics
LRC-2011-719 Wetland A	Discrete and confined	water can flow over the surface but likely also flows through the soil
LRC-2011-719 Wetland B	Confined	-

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other)
LRC-2011-719 Wetland A	Unknown	ground was soggy in portions of the wetland and temperatures were below freezing with a dusting of snow on the ground. Indication that water may be seeping from adjacent areas	-
LRC-2011-719 Wetland B	-	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
LRC-2011-719 Wetland A	Yes	X	-	-
LRC-2011-719 Wetland B	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
LRC-2011-719 Wetland A	1-2	1 (or less)	Wetland to navigable waters	-
LRC-2011-719 Wetland B	1-2	1 (or less)	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-2011-719 Wetland A	-	-
LRC-2011-719 Wetland B	-	-

(iii) Biological Characteristics, Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
LRC-2011-719 Wetland A	-	-	-	-
LRC-2011-719 Wetland B	-	-	X	-

Habitat for:

Wetland Name	Habitat	Federally Listed Species	Explain Findings	Spawn Area	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic/Wildlife Diversity	Explain Findings
LRC-2011-719 Wetland A	X	-	-	-	-	-	-	X	-
LRC-2011-719 Wetland B	X	-	-	-	-	-	-	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-2011-719 WOU5	PERENNIAL	Identified as a solid blue line tributary to Crystal Creek on the USGS Quad Map

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
LRC-2011-719 WOU5	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	-	323.74848
Total:		0	323.74848

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-2011-719 Wetland A	PERENNIAL	Wetland one is hydrologically connect to WOU5 1
LRC-2011-719 Wetland B	PERENNIAL	water drains from wetlands/detention basin through ditch to the WOU5 1

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
LRC-2011-719 Wetland A	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	768.90264
LRC-2011-719 Wetland B	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	768.90264
Total:		0	1537.80528

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	JD Report	-
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	-	-
--U.S. Geological Survey Hydrologic Atlas	-	-
--U.S. Geological Survey map(s).	-	-
--State/Local wetland inventory map(s):	-	-
--FEMA/FIRM maps	-	-

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 and 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.