

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 22-Apr-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: St. Louis District, MVS-2008-00257-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : IL - Illinois
County/parish/borough: Greene
City: Carrollton
Lat: 39.305569009094164
Long: -90.22123387467724
Universal Transverse Mercator: 15N
Name of nearest waterbody: Macoupin Creek
Name of nearest Traditional Navigable Water (TNW): Illinois River
Name of watershed or Hydrologic Unit Code (HUC): Macoupin

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

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 22-Apr-2008

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
Taylor Creek Branch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Wetland A	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:
Linear:

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: 256854 acres
Drainage area: 2500 acres
Average annual rainfall: 29 inches
Average annual snowfall: 12 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:
N/A

Identify flow route to TNW:⁵

Wetland A abuts Taylor Branch Creek. Taylor Branch Creek flows to Taylor Creek then to Macoupin Creek. The receiving waterway, Macoupin Creek flows to the Illinois River - a Traditional Navigable Water.

Tributary Stream Order, if known:

Branch	X	X	X	X	X	X	-	-	-	-	X	X
--------	---	---	---	---	---	---	---	---	---	---	---	---

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

(iii) Chemical Characteristics:

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

Tributary Name	Explain	Identify specific pollutants, if known
Taylor Creek Branch	Although specific pollutants were not observed within the channel, it is anticipated the watercourse is the recipient of non-point source discharges including fertilizers, pesticides, oil residue, and other pollutants that are common to agricultural fields and transportation routes. These pollutants are capable of being transported downstream to Macoupin Creek as they are carried in suspension in stormwater. Because of channel characteristics and proximity to Macoupin Creek and the Illinois River there is a high potential for these downstream waters to be effected by non-point source discharges stemming from Taylor Branch. Decreased water quality leads to increased expenses for treating drinking water supplies, as well as effects water chemistry which stresses aquatic and terrestrial biota thereby disrupting the food chain.	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Taylor Creek Branch	-	-	-	-	-

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	.06	Emergent.	The Illinois Department of Transportation rates Wetland A as having a low wildlife habitat quality and poor natural quality, but the wetland provides retention of floodwaters.	N/A

(b) General Flow Relationship with Non-TNW:

Flow is:

Wetland Name	Flow	Explain
Wetland A	Intermittent flow.	-

Surface flow is:

Wetland Name	Flow	Characteristics
Wetland A	Discrete and confined	Flow from Taylor Branch is intermittent and dependent upon seasonal rainfall influencing flooding and overland flow within the drainage area. Elevation change between Wetland A and Taylor Branch is slight and gradual. Soils within the site are hydric and are comprised entirely of Beacoup Silty Clay Loam. At wetland delineation sample points, soils displayed a low matrix chroma with bright mottling indicating a fluctuating water table and seasonal saturation.

Subsurface flow:

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

(c) Wetland Adjacency Determination with Non-TNW:

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

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
Wetland A	30 (or more)	30 (or more)	Wetland to navigable waters	100 - 500-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 A	-	-

(iii) Biological Characteristics. Wetland supports:

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

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: Taylor Creek Branch, Wetland A

Wetland A has a direct hydrologic connection to Taylor Branch Creek. Site hydrologic patterns are defined by overland flow, surface runoff from IL 108, and floodwater conveyance from the Taylor Branch Creek. Gradual elevation changes provide a relatively flat topography and maintain flooding and hydrologic connectivity between Wetland A and Taylor Branch. Approximately 78 river miles separate the project site from the Illinois River, a traditional navigable water of the United States. Wetland A protects downstream water quality by filtering and processing pollutants through its ability to capture surface runoff and trap sediments. Because drainage is received from the adjoining agricultural fields and IL 108, Wetland A and Taylor Branch have the capacity to carry pollutants to Macoupin Creek and subsequently the Illinois River. Potential pollutants include organic carbon, pesticides, herbicides, oil residues, and excess nutrients along with other chemicals commonly used in agricultural practices. When water is present in the wetland it contributes to erosion control by reducing downstream velocities. Conversely, in dry conditions water stored in the wetland and within wetland soils aid in groundwater recharge. Based on seasonal and hydrologic variations, Wetland A acts as a sink, source, or transformer of organic and inorganic forms of Nitrogen as well as

Phosphorous and orthophosphates. Due to the seasonal presence of standing water within Wetland A, it can process inorganic Nitrogen through a process known as denitrification. Denitrification is the chemical conversion of inorganic Nitrogen to Nitrogen gas that is lost to the atmosphere. The byproduct is then used by the vegetation and in essence purifies the water before release back into the tributary system. The wetland also functions to trap Phosphorous-laden sediments that enter the wetland boundaries through stormwater runoff or sheet flow. The potential for long hydraulic residence times in Wetland A and potential of large contributions of agricultural chemicals and runoff from IL 108 make the wetland an effective filter reducing pollutants in Taylor Branch and Macoupin Creek. Cumulative impacts (as a result of multiple impacts to upstream waters that directly or indirectly flow to the Illinois River) could result in increased flow velocities and potential downstream sediment loading, erosion, and decreased water quality. It has been determined that Wetland A maintains connectivity to the Taylor Branch and Macoupin Creek, thereby providing a significant nexus between the relatively permanent water and the Illinois River. Hydrologic connectivity refers to the flow that transports floodwaters, organic matter and nutrients, energy, and supports ecological functions within the watershed.

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
Taylor Creek Branch	SEASONAL	Flow within the tributary is seasonal. Due to the large drainage area of the stream and location of the project site within the reach, flow has been determined to exceed 3 months.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear)	Size (Area)
Taylor Creek Branch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	19.812	-
Total:		19.812	0

3. Non-RPWs that flow directly or indirectly into TNWs:⁸

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

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

Wetland Name	Flow	Explain
Wetland A	SEASONAL	Wetland A directly abuts Taylor Branch Creek. Flow to Wetland A is received from overbank flooding from Taylor Branch, overland flow, and runoff from IL 108.

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear)	Size (Area)
Wetland A	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	242.81136
Total:		0	242.81136

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.

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 $\frac{1}{2}$ 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.