

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

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): January 10, 2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Kansas City District, WatersEdge Residential Development, NWK-2007-1889-2

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Reach 2, Wetlands 6, 7, 12, and 13

State: Kansas County/parish/borough: Johnson City: Overland Park
Center coordinates of site (lat/long in degree decimal format): Lat. 38.84347019° N, Long. -94.62535793° W.
Universal Transverse Mercator:

Name of nearest waterbody: Blue River

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

Name of watershed or Hydrologic Unit Code (HUC):

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

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

- Office (Desk) Determination. Date: November 5, 2007
 Field Determination. Date(s): **October 12, 2007**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

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

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

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

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

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

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

Non-wetland waters: 952 linear feet: 3 width (ft) and/or acres.
Wetlands: 0.704 acres.

c. Limits (boundaries) of jurisdiction based on: Pick List

Elevation of established OHWM (if known): .

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

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: **Based on current guidance and instruction, we are not able to demonstrate a significant nexus between these waters and the TNW, additional information in Section III.**

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”:

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 225 acres

Drainage area: 65 acres

Average annual rainfall: 38-40 inches

Average annual snowfall: 19-23 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 4 tributaries before entering TNW.

Project waters are 20-25 river miles from TNW.

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

Project waters are 15-20 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 TNW⁵: This unnamed tributary flow into another unnamed tributary, then flows into the Blue River (TNW).

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.

Tributary stream order, if known: .

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

Tributary is: Natural
 Artificial (man-made). Explain: .
 Manipulated (man-altered). Explain: Extensive residential development has occurred in the upland area and there is an impoundment within this reach that was filled in and converted to wetlands.

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

Average width: 6 feet
Average depth: 4 feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover:
 Other. Explain: .

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

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 3 %

(c) **Flow:**

Tributary provides for: **Intermittent but not seasonal flow**

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

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: **Confined**. **Characteristics:** .

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

Dye (or other) test performed: .

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain: .

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

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

(iii) **Chemical Characteristics:**

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

Explain: .

Identify specific pollutants, if known: This site was used previously for storage of petroleum products. The petroleum storage tanks were removed and the site completed remediation through the Voluntary Cleanup Program with the Kansas Department of Health and Environment (KDHE), "no-further-action" letter was issued by KDHE. No other known pollutants have been identified.

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

⁷Ibid.

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

Riparian corridor. Characteristics (type, average width): Mature trees, understory vegetation and fescue grass, less than 25 feet, 75% cover.

Wetland fringe. Characteristics:

Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings: Minimal habitat for terrestrial wildlife, no habitat for aquatic species due to the ephemeral nature of the drainage.

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

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.657 acres

Wetland type. Explain: forested and emergent.

Wetland quality. Explain: low quality wetland.

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain:

Surface flow is: **Discrete and confined**

Characteristics:

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

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain:

Ecological connection. Explain:

Separated by berm/barrier. Explain: two of the adjacent wetlands are within the bermed area of former petroleum storage tanks.

(d) Proximity (Relationship) to TNW

Project wetlands are **25-30** river miles from TNW.

Project waters are **15-20** aerial (straight) miles from TNW.

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

Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

(ii) **Chemical Characteristics:**

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

Identify specific pollutants, if known: This site was used previously for storage of petroleum products. The petroleum storage tanks were removed and the site completed remediation through the Voluntary Cleanup Program with the Kansas Department of Health and Environment (KDHE), "no-further-action" letter was issued by KDHE. No other known pollutants have been identified.

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

Riparian buffer. Characteristics (type, average width):

Vegetation type/percent cover. Explain: forested and emergent, 80%.

Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings: Minimal habitat for terrestrial wildlife, no habitat for aquatic species due to the ephemeral nature of the drainage.

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

All wetland(s) being considered in the cumulative analysis: **4**

Approximately (0.704) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Y	0.309	Y	0.248
N	0.124	N	0.023

Summarize overall biological, chemical and physical functions being performed: **The wetlands abutting the channel have the ability to trap sediments, retain and remove nutrient, and provides minimal habitat for aquatic and terrestrial wildlife. Due to the size of the watershed and size of the wetlands, this function is minimal and has not significant effect on the TNW. Since the adjacent wetland are at the top of the ridge on a plateau, they do not provide any sediment filtering, only minimal habitat for small terrestrial wildlife.**

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: **This reach and associated wetlands have a significant nexus to the TNW portion of the Blue River. The relevant reach beginning and end point of the channel being evaluated is depicted by the solid blue line on the attached map. The relevant reach being analyzed is approximately 952 linear feet long and 3 feet wide. This reach forms from sheetflow in the upland area north of the project site. The origin of this reach is located at the top of the local watershed and drainage to the channel comes from the surround residential area and agricultural fields. The drainage area for this portion of the reach is approximately 65 acres and the local watershed is approximately 225 acres. The local watershed was calculated by measuring all of the drainage upstream of the nearest RPW. The nearest estimated RPW is the Blue River. In addition, the lower 4.38 miles of the Blue River is considered Section 10 waters. However, a designation in accordance with Appendix D may determine that the Blue River is a TNW further upstream. The channel is not mapped on the USGS topographic map, but is mapped on the Johnson County Soil Survey map. This channel has a gradient that is approximately 3% and is relatively straight,. This suggests that the channel is primarily a conveyance of water after rainfall events. The slope also suggests that the channel does not have the capacity to retain flood waters since the channel would likely drain quickly in a flood event. The potential for this channel to recharge groundwater is also unlikely based on the gradient of the channel, placement in the watershed, and short duration of flow. Although this particular channel has the capacity to carry pollutants to the TNW; no pollutants have been identified onsite. But, this reach may have carried pollutants due to the previous petroleum storage activities on the site. Remediation activities have been completed at this site and no pollutants are known to occur on this site. Because of the intermittent nature of this reach, this reach may have the potential to provide habitat and/or lifecycle support functions for aquatic species and other macro invertebrates that are present in the TNW. The riparian area adjacent to this reach consists of scatter trees, with understory vegetation and fescue grasses. Within this reach the corridor provides limited functions to control erosion,**

habitat for terrestrial wildlife, and dispersing the energy of flow. The two abutting wetlands within the reach have resulted from the impoundment of the channel, which has been since been drained and silted in and now has wetland characteristics. The two adjacent wetlands formed within the berm area of the former petroleum storage tanks. The adjacent wetlands are in a flat area at the top of the ridge. Under most situation, the adjacent wetlands would be considered isolated, but drainage paths from these wetlands have formed since the tanks have been removed and the berms altered. Most precipitation that settles within these adjacent wetlands evaporates, only during major rain fall events would any discharge leave this flat bermed area. These four wetlands within this reach may have the ability to prevent the flow of sediments to the TNW and have limited ability to provide nutrients and organic matter to the downstream. In conclusion, based on current guidance and instruction, we have determined that this reach and the associated wetlands exhibits a significant nexus to the TNW and therefore is jurisdictional. A field visit was complete by this office to make this determination.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

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

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

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

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

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

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

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

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

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

- Tributary waters: **952** linear feet **3** width (ft).
 - Other non-wetland waters: acres.
- Identify type(s) of waters:

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

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

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

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

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

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

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

⁸See Footnote # 3.

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

Provide estimates for jurisdictional wetlands in the review area: **0.704** acres.

7. Impoundments of jurisdictional waters.⁹

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

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

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

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

Identify water body and summarize rationale supporting determination:

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

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

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

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

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

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

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

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

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .

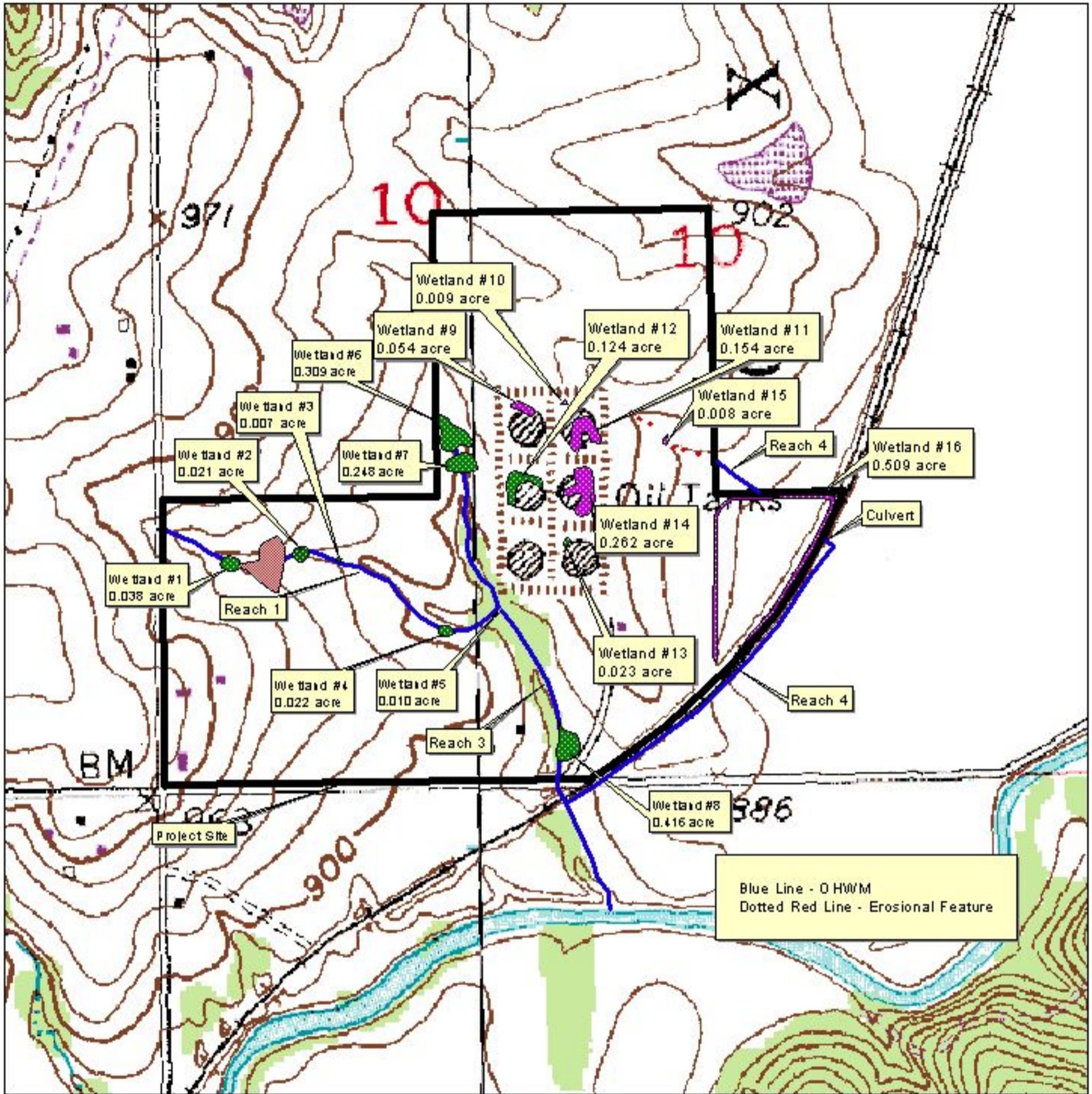
⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

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.

- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute topographic map, Stilwell and Belton Quadrangle.
- USDA Natural Resources Conservation Service Soil Survey. Citation:
- National wetlands inventory map(s). Cite name:Belton, MO.
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date):1999 ArcView ortho photography, Stilwell and Belton .
 - or Other (Name & Date):Adaptive Ecosystem, 2007.
- Previous determination(s). File no. and date of response letter:
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: Review of topographic and aerial maps indicate the site is largely agricultural and slopes to the southeast. Six petroleum storage tanks were present on the site, but were removed in 1997. This reach and associated wetlands have a significant nexus to the TNW portion of the Blue River. The relevant reach beginning and end point of the channel being evaluated is depicted by the solid blue line on the attached map. The relevant reach being analyzed is approximately 952 linear feet long and 3 feet wide. This reach forms from sheetflow in the upland area north of the project site. The origin of this reach is located at the top of the local watershed and drainage to the channel comes from the surround residential area and agricultural fields. The drainage area for this portion of the reach is approximately 65 acres and the local watershed is approximately 225 acres. The local watershed was calculated by measuring all of the drainage upstream of the nearest RPW. The nearest estimated RPW is the Blue River. In addition, the lower 4.38 miles of the Blue River is considered the TNW. However, a designation in accordance with Appendix D may determine that the Blue River is a TNW further upstream. The channel is not mapped on the USGS topographic map, but is mapped on the Johnson County Soil Survey map. This channel has a gradient that is approximately 3% and is relatively straight,. This suggests that the channel is primarily a conveyance of water after rainfall events. The slope also suggests that the channel does not have the capacity to retain flood waters since the channel would likely drain quickly in a flood event. The potential for this channel to recharge groundwater is also unlikely based on the gradient of the channel, placement in the watershed, and short duration of flow. Although this particular channel has the capacity to carry pollutants to the TNW; no pollutants have been identified onsite. But, this reach may have carried pollutants due to the previous petroleum storage activities on the site. Remediation activities have been completed at this site and no pollutants are known to occur on this site. Because of the intermittent nature of this reach, this reach may have the potential to provide habitat and/or lifecycle support functions for aquatic species and other macro invertebrates that are present in the TNW. The riparian area adjacent to this reach consists of scatter trees, with understory vegetation and fescue grasses. Within this reach the corridor provides limited functions to control erosion, habitat for terrestrial wildlife, and dispersing the energy of flow. The two abutting wetlands within the reach have resulted from the impoundment of the channel, which has been since been drained and silted in and now has wetland characteristics. The two adjacent wetlands formed within the berm area of the former petroleum storage tanks. The adjacent wetlands are in a flat area at the top of the ridge. Under most situation, the adjacent wetlands would be considered isolated, but drainage paths from these wetlands have formed since the tanks have been removed and the berms altered. Most precipitation that settles within these adjacent wetlands evaporates, only during major rain fall events would any discharge leave this flat bermed area. These four wetlands within this reach may have the ability to prevent the flow of sediments to the TNW and have limited ability to provide nutrients and organic matter to the downstream. In conclusion, based on current guidance and instruction, we have determined that this reach and the associated wetlands exhibites a significant nexus to the TNW and therefore are jurisdictional. A field visit was complete by this office to make this determination.

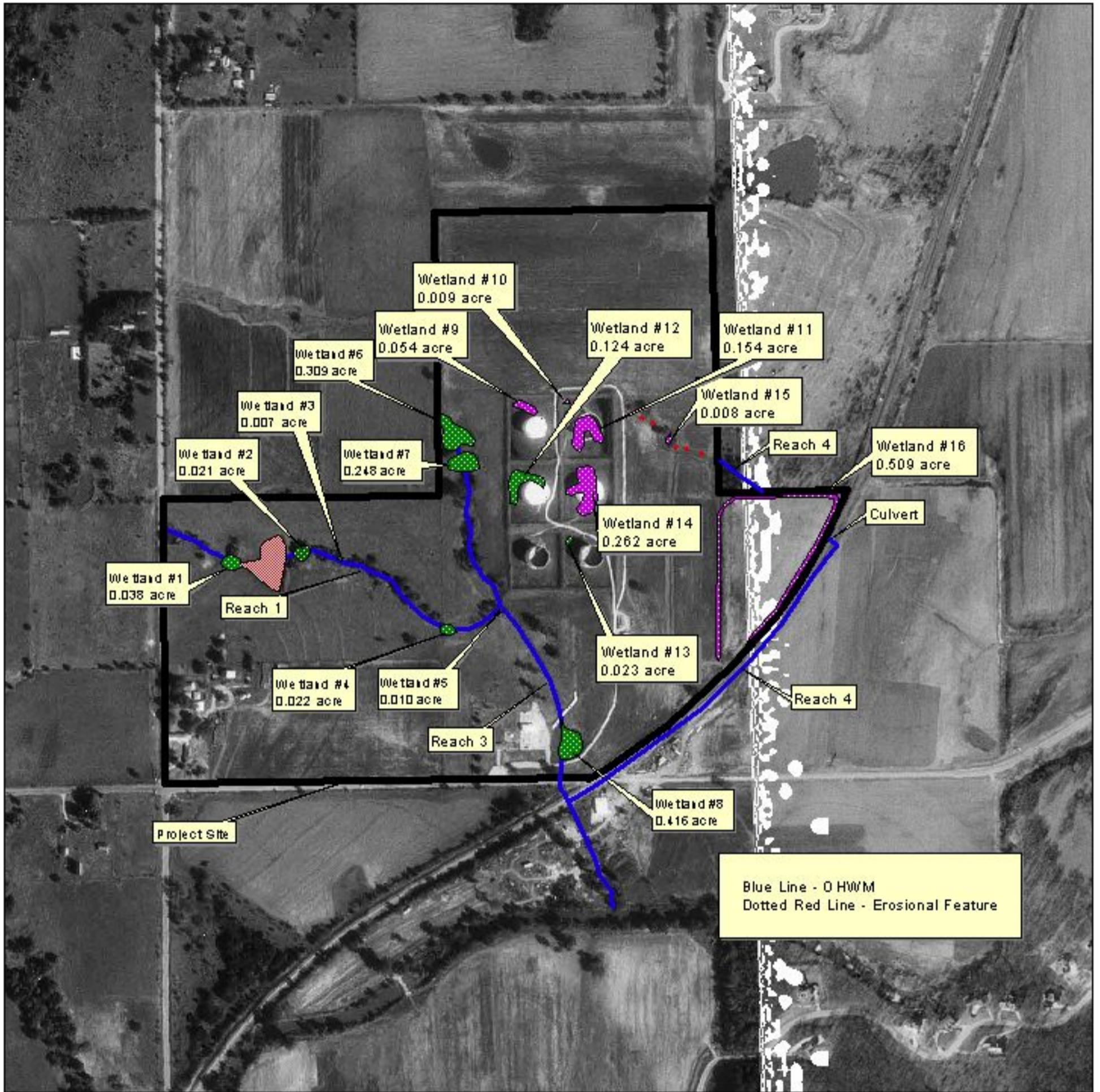
NWK-2007-1889, WatersEdge Residential Development



0 0.1 0.2 0.3 0.4 0.5 Miles



NWK-2007-1889, WatersEdge Residential Development



0 0.1 0.2 0.3 0.4 0.5 Miles

