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.

SE(CTION I: BACKGROUND INFORMATION
A.	REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 5/22/12
B.	DISTRICT OFFICE, FILE NAME, AND NUMBER:NWO-2012-570-PIE Wetland A/B, NWO-2012-570-PIE Wetland C
	PROJECT LOCATION AND BACKGROUND INFORMATION: 2 miles North of Harrisburg, SD, at the SE corner of the exection of SD HWY 115 & 106
	State:South Dakota County/parish/borough:Lincoln City:Harrisburg Center coordinates of site (lat/long in degree decimal format): Lat. 43.460063N; Long96.723023W Universal Transverse Mercator: 14
	Name of nearest waterbody: Spring Creek Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:/Lower Big Sioux River Name of watershed or Hydrologic Unit Code (HUC):10170203 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:5/3/12 ☐ Field Determination. Date(s):
SEC	CTION II: SUMMARY OF FINDINGS
Α.	RHA SECTION 10 DETERMINATION OF JURISDICTION.
	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew 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.
The	ere 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): TNWs, including territorial seas Wetlands adjacent to TNWs
	Relatively permanent waters ² (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

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

Impoundments of jurisdictional waters

Non-wetland waters: linear feet: width (ft) and/or acres. Wetlands: 3.5 acres.

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

Isolated (interstate or intrastate) waters, including isolated wetlands

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

Elevation of established OHWM (if known):

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

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.

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Details on the Non-Jurisdictional waters within the project area can be found on an Approved JD Form for NWO-2012-570-PIE Wetlands D,E,F dated 5/3/12 .

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.

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Identify TNW:

Summarize rationale supporting determination:

Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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.

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

General Area Conditions:

Watershed size: 3039 square miles Drainage area: 3.8 square miles Average annual rainfall: 38.26 inches Average annual snowfall: 44.8 inches

(ii) Physical Characteristics:

Relationship with TNW:

Tributary flows directly into TNW.

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

Project waters are 5-10 river miles from TNW.

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

5-10 aerial (straight) miles from TNW.

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

	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 : Project waters are abutting wetlands to an RPW (an unnamed Trib to the Big Sioux River) which flows directly into the Big Sioux River which flows into the Lower Big Sioux River (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: Channelized in some segments.
	Tributary properties with respect to top of bank (estimate): Average width: 6 feet Average depth: 1 feet Average side slopes: 4:1 (or greater).
	Primary tributary substrate composition (check all that apply): Silts
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable, lightly vegetated banks, with frequent out of bank events. Presence of run/riffle/pool complexes. Explain: Some segment of this stream remain unmanipulated and contain R/R/P complexes, the ratio is unknown. Tributary geometry: Meandering Tributary gradient (approximate average slope): 190 ft in 8 miles %
(c)	Flow: Tributary provides for: Ephemeral flow Estimate average number of flow events in review area/year: 11-20 Describe flow regime: Highest discharges usually conicide with snowmelt and wet cycles. The stream is ephemeral but low enough in the watershed that it receives relatively permenant flow. Other information on duration and volume:
	Surface flow is: Confined. Characteristics: Cofined with sheetflow during periods of high flow.
	Subsurface flow: Unknown . Explain findings: Dye (or other) test performed:
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list): Discontinuous OHWM. 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:

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. 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.

		☐ tidal gauges ☐ other (list):
(iii	Cha	emical Characteristics: aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: high seasonal turbidity, high sediments due to intensive farming throughout the watershed, also it is likely this stream contains high amounts of chemicals such as insecticides, pesticides, and herbicides and nutrient loading given the intensive agricultural activities within the basin. Intify specific pollutants, if known:
(iv	Bio	logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Wetland fringe. Characteristics: Emergent Wetland Vegetation. Habitat for: ☐ Federally Listed species. Explain findings: ☐ Fish/spawn areas. Explain findings: non-game species of fish. ☐ Other environmentally-sensitive species. Explain findings: Waterbirds and some species of passerines, Herps, Migratory birds, aquatic mammals. ☐ Aquatic/wildlife diversity. Explain findings: Waterbirds and some species of passerines, Herps, Migratory birds, aquatic mammals.
2. Cl	aract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(i)		Asical Characteristics: General Wetland Characteristics: Properties: Wetland size: 3.5 acres Wetland type. Explain::PEMA, Depressional Wetland quality. Explain::Relatively Low Wetland quality in all wetlands within this site, Wetlands A/B and mainly fringe cattails and WEtland C is farmed during dry cycles; a proper functional assessment was not prepared for these wetlands. Project wetlands cross or serve as state boundaries. Explain:
	(b)	General Flow Relationship with Non-TNW: Flow is: Ephemeral flow. Explain: Wetland flows into the adjacent non-RPW during wet periods/seasons and after significant precipitation, I would classify the wetland as seasonal.
		Surface flow is: Discrete Characteristics:
		Subsurface flow: Unknown . Explain findings: Dye (or other) test performed:
	(c)	Wetland Adjacency Determination with Non-TNW: ☐ Directly abutting ☐ Not directly abutting ☐ Discrete wetland hydrologic connection. Explain: ☐ Ecological connection. Explain: ☐ Separated by berm/barrier. Explain:
	(d)	Proximity (Relationship) to TNW Project wetlands are 5-10 river miles from TNW. Project waters are 5-10 aerial (straight) miles from TNW. Flow is from: Wetland to navigable waters. Estimate approximate location of wetland as within the 2-year or less floodplain.
etc., and	Cha Idea I has I	emical Characteristics: uracterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water quality appears good/clear based on info provided in a delineation. Intify specific pollutants, if known: Given the agricultural landscape it is likely the stream is high in pesticides, fungicides, nigh nutrient loading. Knowing this, it is likely the affected jurisdictional wetlands play a significant role of filtration and ne waters draining into this area from neighboring agricultural ground.
(ii		logical Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width): Vegetation type/percent cover. Explain:50.

\boxtimes	Habitat for:
	Federally Listed species. Explain findings: .
	Fish/spawn areas. Explain findings: A small channel exists at the lower end of the wetland providing suitable habitat
	for non-game species of fish
	Other environmentally-sensitive species. Explain findings: Waterbirds and some species of passerines, Herps,
	Migratory birds, aquatic mammals.
	Aquatic/wildlife diversity. Explain findings: Waterbirds and some species of passerines, Herps, Migratory birds,
	aquatic mammals.

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

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

Approximately (3.5) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland A	1.1	Y	
Wetland B	1.8	Y	
Wetland C	0.6	Y	

Summarize overall biological, chemical and physical functions being performed: The wetlands within the project area are allowing for the exchange of mass, momentum, energy and organisms between these systems and the unnamed trib to the Big Sioux River and further downstream, i.e. Lower Big Sioux and Missouri Rivers. By means of hydrologic connectivity, these wetlands are part of the Big Sioux River Tributary system, both hydrologically and ecologically.

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: A significant Hydrologic connection exists between the affected wetlands on the west side of the project site to an unnamed trib to the Big Sioux River (RPW). These wetlands abut the blue line stream the flows west to east just north of the project site; the flow route of this trib essentially follows Co. HWY 106 until its confluence with the Big sioux river. This blue line stream is ephemeral but low enough in the watershed that it receives relatively permenant flow.

	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.		TERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL AT 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.	Noi	n-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
		Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
	4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
		Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: A significant Hydrologic connection exists between the affected wetlands on the west side of the project site to an unnamed trib to the Big Sioux River (RPW). Water flows seasonally through a channel at the lower end of the wetlands in reference and into the blue line stream the flows west to east just north of the project site; the flow route of this trib essentially follows Co. HWY 106 until its confluence with the Big sioux river. This blue line stream is ephemeral but low enough in the watershed that it receives relatively permenant flow.
		Provide acreage estimates for jurisdictional wetlands in the review area: 3.5 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 jurisidictional. 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.
		Prov	ride estimates for jurisdictional wetlands in the review area: acres.
	7.	Imp 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).
Е.	DEC SUC	GRA CH W which from which Inters	ED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY ATERS (CHECK ALL THAT APPLY): 10 have or could be used by interstate or foreign travelers for recreational or other purposes. which fish or shellfish are or could be taken and sold in interstate or foreign commerce. have or could be used for industrial purposes by industries in interstate commerce. State isolated waters. Explain:
	Ider	ntify	water body and summarize rationale supporting determination:
		Tribu Othe Id	estimates for jurisdictional waters in the review area (check all that apply): stary waters: linear feet width (ft). r non-wetland waters: acres. lentify type(s) of waters: ands: acres.
F.		If po Wet Revi □	RISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): stential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers land Delineation Manual and/or appropriate Regional Supplements. ew 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). ers do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: er: (explain, if not covered above):
	facto	ors (i gment Non Lake Othe	creage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional (check all that apply): -wetland waters (i.e., rivers, streams): linear feet width (ft). es/ponds: acres. er non-wetland waters: acres. List type of aquatic resource: lands: acres.
		ding Non Lake Othe	creage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such is required for jurisdiction (check all that apply): -wetland waters (i.e., rivers, streams): linear feet, width (ft). es/ponds: acres. er non-wetland waters: acres. List type of aquatic resource: . lands: acres.

SECTION IV: DATA SOURCES.

 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.

A.	SUP	PORTING 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):
	\boxtimes	Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Submitted by applicant's consultant.
	\boxtimes	Data sheets prepared/submitted by or on behalf of the applicant/consultant.
		Office concurs with data sheets/delineation report. Delineation boundaries appear to be accurate
		Office does not concur with data sheets/delineation report. This office does not concur with the preliminary quantitative
	asse	essments provided by the consultant. Some wetlands had been recently disturbed, additionally the delineation was conducted
	extr	emely early in the growing season (March).
		Data sheets prepared by the Corps: .
		Corps navigable waters' study: .
		U.S. Geological Survey Hydrologic Atlas: .
		USGS NHD data.
		□ USGS 8 and 12 digit HUC maps. 10170203, Lower Big Soiux. Iowa, Minnesota, South Dakota
	\boxtimes	U.S. Geological Survey map(s). Cite scale & quad name:1:24 K, SD-HARRISBURG.
		USDA Natural Resources Conservation Service Soil Survey. Citation:
		National wetlands inventory map(s). Cite name:Missouri-Big Sioux.
		State/Local wetland inventory map(s):
		FEMA/FIRM maps:
		100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
	\boxtimes	Photographs: Aerial (Name & Date):Google Earth 7/14/2010, 4/22/1996.
		or Other (Name & Date): .
		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: