

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): September 7, 2010

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, Alton Coal, Coal Hollow Surface Mine Project, SPK-2009-01008, Unnamed Ephemeral Streams 1, 3 through 6, Lower Robinson Creek-Intermittent and Ephemeral Segments, Wetlands 11 through 16

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: **Utah** County/parish/borough: **Kane** City: **Alton**
Center coordinates of site (lat/long in degree decimal format): Lat. **37.3977N**, Long. **-112.4657W**
Universal Transverse Mercator: **12**

Name of nearest waterbody: **Lower Robinson Creek**

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

Name of watershed or Hydrologic Unit Code (HUC): **Kanab, 15010003**

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: **Unnamed Ephemeral Stream 2, Wetlands 1 through 10, Wetland 17**

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

Office (Desk) Determination. Date: **September 7, 2010**

Field Determination. Date(s): **May 7, 2010**

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: **8661** linear feet, **2 feet to 6 feet** wide, and/or acres.

Wetlands: **0.11** acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM.

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:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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.

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: approximately 3000 square miles

Drainage area: approximately 1.7 square miles

Average annual rainfall: 16.57 inches

Average annual snowfall: 83.5 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 2 tributaries before entering TNW.

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 TNW⁵:

NOTE: The applicant has identified the downstream reach of Lower Robinson Creek as an intermittent stream. However, this reach has perennial flow. The upper reach of Robinson Creek is appropriately identified as an ephemeral reach. The perennial reach is referred to as "intermittent" solely for identification purposes consistent with the attached maps.

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.

Unnamed Ephemeral Stream 1 (non-RPW) flows into Lower Robinson Creek-Ephemeral Segment. Unnamed Ephemeral Stream 3 (non-RPW) flows into Lower Robinson Creek-Intermittent Segment 1. Wetlands 11 through 16 directly abut Lower Robinson Creek-Intermittent Segment 1. Unnamed Ephemeral Streams 4 through 6 (non-RPW) flow into Lower Robinson Creek-Intermittent Segment 2. Lower Robinson Creek-Ephemeral Segment (non-RPW) flows into Lower Robinson Creek-Intermittent Segment 1 which flows into Lower Robinson Creek-Intermittent Segment 2. Lower Robinson Creek-Intermittent Segments 1 and 2 (perennial flow) are shorter than Lower Robinson Creek-Ephemeral Segment (ephemeral flow) and not representative of the entire stream characteristics. Therefore, considering the relative segment lengths and flow regime, the entire Lower Robinson Creek is a non-relatively permanent water (non-RPW). About 2500 feet from the project boundary, Lower Robinson Creek-Intermittent Segment 2 (non-RPW) flows into Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW). About 30 miles downstream, Kanab Creek flows across the Kaibab Band of Paiute Indian Reservation near the Utah/Arizona border. Kanab Creek, an interstate water, continues through tribal lands for about 15 miles. Surface flows enter the Colorado River (TNW, Section 10 RHA) approximately 40 miles downstream of tribal lands and 70 miles south of the project.

Tributary stream order, if known:

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

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

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

Average width: **2 to 6** feet
Average depth: **1 to 10** feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

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

Other. Explain: **Unnamed Ephemeral Streams 1, 3 through 6 average approximately 2 feet in width and 1 foot in depth. There is relatively little sorting of materials because of the short duration and periodicity of flows. The channel materials are mainly gravel with fine clays that may be carried with downstream surface flows. Lower Robinson Creek- Ephemeral and Intermittent Segments are, incised, cobble and boulder-bedded channels averaging approximately 6 feet in width and 10 feet in depth. The channel materials include fine clays that may be carried with downstream surface flows.**

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

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Ephemeral flow**

Estimate average number of flow events in review area/year: **2-5**

Describe flow regime: **Unnamed Ephemeral Streams 1, 3 though 5, and Lower Robinson Creek-Ephemeral Segment only receive flow during snow runoff and significant summer rainfall events. Lower Robinson Creek-Intermittent Segment 1 and 2 receive year-round groundwater flow that is supplemented by surface runoff from snow runoff and rain events.**

Other information on duration and volume:

Surface flow is: **Discrete and confined**. Characteristics:

Subsurface flow: **Yes**. Explain findings: **Lower Robinson Creek-Intermittent Segment 1 and 2 receive year-round groundwater flow that is supplemented by surface runoff from snow runoff and rain events.**

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

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.

- 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.⁷ Explain:
- destruction of terrestrial vegetation
- the presence of wrack line
- sediment sorting
- scour
- multiple observed or predicted flow events
- abrupt change in plant community

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: **When water is present, Unnamed Ephemeral Streams 1, 3 through 6, Lower Robinson Creek-Ephemeral Segment, and Lower Robinson Creek-Intermittent Segment 1 and 2 carries a significant sediment load to Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW) that is tributary to the Colorado River (TNW, Section 10 RHA).**

Identify specific pollutants, if known:

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

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics: **Wetlands 11 through 16 abut Lower Robinson Creek-Intermittent Segment 1.**
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

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

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:
Wetland size: **0.11** acres
Wetland type. Explain: **Riparian wet meadow**
Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Perennial flow**. Explain: **Wetlands 11 through 16 directly abut Lower Robinson Creek-Intermittent Segment 1 (non-RPW) which flows into Lower Robinson Creek-Intermittent Segment 2 (non-RPW). About 2500 feet from the project boundary, Lower Robinson Creek-Intermittent Segment 2 (non-RPW) flows into Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW) a tributary to the Colorado River (TNW, Section 10 RHA).**

Surface flow is: **Discrete and confined**
Characteristics:

Subsurface flow: **Yes**. Explain findings: **Wetlands 11 through 16, directly abutting Lower Robinson Creek-Intermittent Segment 1, receive year-round groundwater flow that is supplemented by surface runoff from snow runoff and rain events.**

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:

⁷Ibid.

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

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

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

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

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

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Wetlands 11 through 16 are associated with near-surface groundwater seeping into the Lower Robinson Creek drainage.**

Identify specific pollutants, if known:

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

Riparian buffer. Characteristics (type, average width):

Vegetation type/percent cover. Explain: **Juncus arcitus, Juncus balticus, Carex nebrascensis, Agrostis idahoensis**

Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

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

All wetland(s) being considered in the cumulative analysis: **6**

Approximately **0.11** 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>
Wetland 11-Yes	0.03	Wetland 14-Yes	341 sq ft (<0.01)
Wetland 12-Yes	0.02	Wetland 14-Yes	0.02
Wetland 13-Yes	0.02	Wetland 16-Yes	0.02

Summarize overall biological, chemical and physical functions being performed: **Wetlands 11 through 16 trap fine clays and reduce sediment loading to Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW) that is tributary to the Colorado River (TNW, Section 10 RHA).**

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:

During spring snowmelt or summer storm events, Unnamed Ephemeral Stream 1 (non-RPW) flows into Lower Robinson Creek-Ephemeral Segment. Unnamed Ephemeral Stream 3 (non-RPW) flows into Lower Robinson Creek-Intermittent Segment 1. Unnamed Ephemeral Streams 4 through 6 (non-RPW) flow into Lower Robinson Creek-Intermittent Segment 2.

Lower Robinson Creek-Ephemeral Segment (non-RPW) flows into Lower Robinson Creek-Intermittent Segment 1, which also receives perennial groundwater flow. Wetlands 11 through 16, directly abut and receive flow from Lower Robinson Creek-Intermittent Segment 1. Lower Robinson Creek-Intermittent Segment 1 flows into perennial Lower Robinson Creek-Intermittent Segment 2. Lower Robinson Creek-Intermittent Segments 1 and 2 (perennial flow) are shorter than Lower Robinson Creek-Ephemeral Segment (ephemeral flow) and not representative of the entire stream characteristics. Therefore, considering the relative segment lengths and flow regime, the entire Lower Robinson Creek is a non-relatively permanent water (non-RPW). About 2500 feet from the project boundary, Lower Robinson Creek-Intermittent Segment 2 (non-RPW) flows into Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW). About 30 miles downstream, Kanab Creek flows across the Kaibab Band of Paiute Indian Reservation near the Utah/Arizona border. Kanab Creek, an interstate water, continues through tribal lands for about 15 miles. Surface flows enter the Colorado River (TNW, Section 10 RHA) approximately 40 miles downstream of tribal lands and 70 miles south of the project.

Unnamed Ephemeral Stream 1 (non-RPW) has the capacity to convey sufficient, sediment-laden flows, to have a significant effect on the physical, chemical, and/or biological integrity of Lower Robinson Creek-Ephemeral Segment, which flows to Lower Robinson Creek-Intermittent Segment 1 and its directly abutting Wetlands 11 through 16, which flows to Lower Robinson Creek-Intermittent Segment 2, which flows to Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW), which flows to the Colorado River (TNW, Section 10 RHA).

Unnamed Ephemeral Stream 3 (non-RPW) has the capacity to convey sufficient, sediment-laden flows, to have a significant effect on the physical, chemical, and/or biological integrity of Lower Robinson Creek-Intermittent Segment 1 and its directly abutting Wetlands 11 through 16, which flows to Lower Robinson Creek-Intermittent Segment 2, which flows to Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW), which flows to the Colorado River (TNW, Section 10 RHA).

Unnamed Ephemeral Stream 4 through 6 (non-RPWs) have the capacity to convey sufficient, sediment-laden flows, to have a significant effect on the physical, chemical, and/or biological integrity of Lower Robinson Creek-Intermittent Segment 2, which flows to Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW), which flows to the Colorado River (TNW, Section 10 RHA).

Lower Robinson Creek-Ephemeral Segment (non-RPW) has the capacity to convey sufficient, sediment-laden flows, to have a significant effect on the physical, chemical, and/or biological integrity of Lower Robinson Creek-Intermittent Segment 1, Wetlands 11 through 16, Lower Robinson Creek-Intermittent Segment 2, and Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW), which flows to the Colorado River (TNW, Section 10 RHA).

Lower Robinson Creek-Intermittent Segment 1, and its directly abutting Wetlands 11 through 16 (non-RPW), have the capacity to convey sufficient, sediment-laden flows, to have a significant effect on the physical, chemical, and/or biological integrity of Lower Robinson Creek-Intermittent Segment 2, and Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW), which flows to the Colorado River (TNW, Section 10 RHA).

Lower Robinson Creek-Intermittent Segment 2 has the capacity to convey sufficient, sediment-laden flows, to have a significant effect on the physical, chemical, and/or biological integrity of Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW), which flows to the Colorado River (TNW, Section 10 RHA).

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, wide, 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: **Lower Robinson Creek-Intermittent Segment 1 and 2 are perennial waters which receive year-round groundwater flow that is supplemented by surface runoff from snow runoff and rain events.**

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 wide.

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: **8,661** linear feet, **2 to 6 feet** wide.

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: **0.11** acres.

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

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

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

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

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

Provide estimates for jurisdictional wetlands in the review area: **0.11** 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

⁸See Footnote # 3.

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

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

- 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, wide.
- 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, wide.
- 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, wide.
- 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: **Wetland and Stream Channel Delineation for the Relocation of County Road 136 near Alton, Kane County, Utah, prepared for Alton Coal Development, LLC by Frontier Corporation USA, May 18, 2010. Wetland Delineation Technical Report, Coal Hollow Surface Mine Project, Approximately 635-acre Study Area near Alton, Kane County, Utah, prepared for Alton Coal Development, LLC by Frontier Corporation USA, January 2010. Investigation of Groundwater and Surface-Water Systems in the 630-acre Proposed Coal Hollow Mine Permit and Adjacent Area; Probably Hydrologic Consequences of Coal Mining; Recommended Monitoring Plan; Potential Alluvial Valley Floor Information, Kane County, Utah, prepared for Alton Coal Development, LLC by Petersen Hydrologic, LLC, 12 June 2007**
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name:
- USDA Natural Resources Conservation Service Soil Survey. Citation:
- National wetlands inventory map(s). Cite name:
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date):

- or Other (Name & Date): **Field Visit, May 7, 2010.**
- Previous determination(s). File no. and date of response letter:
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify): **U.S. Department of the Interior, Bureau of Land management, Alton Road Relocation Environmental Assessment (UT-110-08-011), Case File # (UTU-83017), November 2008.**

B. ADDITIONAL COMMENTS TO SUPPORT JD:

The center of the Alton Coal Development, LLC, Coal Hollow Mine Project, is approximately 3 miles south of the town of Alton, Utah. Alton Coal Development, LLC has submitted the Department of Interior, Bureau of Land Management (BLM), an application to lease Federal coal adjacent to their 635.64-acres of private lands. The Alton Coal Lease Tract has been determined by BLM and encompasses approximately 3,600 acres of federal coal reserves. Under the BLM Lease by Application process, and in response to Alton Coal Development LLC's application, BLM plans to competitively offer the Alton Coal Lease Tract to interested parties in accordance with BLM's standard terms, conditions, and policies. BLM's draft Environmental Impact Statement for Alton Coal Development LLC's Federal Coal Lease Application and a competitive offer for the Federal coal lease are pending. While BLM's actions are pending, Alton Coal Development LLC is proceeding with a State of Utah application to mine on their privately held lands. Alton Coal Development, LLC has submitted a complete application (File # C/025/005) to Utah Division of Oil, Gas, and Mining (DOG M) that, if approved, would permit surface coal mining on their 635.64-acres of private land in the Alton Coal Field. Kane County Road 136 bisects a portion of these privately held lands. To facilitate the proposed mining operations, Alton Coal Development, LLC, requested Kane County temporarily relocate part of the road. On December 12, 2008, BLM granted Kane County a 66-foot right-of-way to re-route approximately 3.1 miles of Kane County Road 136 through about 27 acres of BLM-administered land. Roadway construction is proposed after DOGM, and other authorizing agencies, grant Alton Coal Development, LLD approval to begin mining.

In January 2010, a Wetlands Delineation was prepared for the privately-held lands. On May 7, 2010, a field visit was conducted to verify the delineation. On May 18, 2010, a Wetland and Stream Channel Delineation was prepared for the Kane County Road 136 realignment. The May 2010 submittal included the revised wetland delineation maps requested during the field visit.

Precipitation generally falls as snow in the winter and rain in the summer. The average annual total precipitation is 16.57 inches. The average total snowfall is 83.5 inches. During the growing season, most of the precipitation (4.7 inches) occurs during the summer months of July, August, and September. If conditions are optimal, ephemeral drainages within the project area can have significant surface water flow in response to snow melt and summer rain events.

The waters labeled in the Wetlands Delineation Report as Lower Robinson Creek-Ephemeral Segment, Lower Robinson Creek-Intermittent Segments 1 and 2, Unnamed Ephemeral Stream 1, 3 through 6, and Wetlands 11 through 16 are described as follows.

Waters	Length	Width	Location
Lower Robinson Creek - Ephemeral Segment	5,244 linear feet	6 feet	Proposed Coal Hollow Mine Project Permit Area
Lower Robinson Creek-Intermittent Segment 1	1,896 linear feet	6 feet	Proposed Coal Hollow Mine Project Permit Area
Lower Robinson Creek-Intermittent Segment 2	183.5 linear feet	6 feet	Proposed Kane County Road 136 Relocation
Unnamed Ephemeral Stream 1	736 linear feet	2 feet	Proposed Coal Hollow Mine Project Permit Area
Unnamed Ephemeral Stream 3	64 linear feet	2 feet	Proposed Coal Hollow Mine Project Permit Area
Unnamed Ephemeral Stream 4	243 linear feet	2 feet	Proposed Kane County Road 136 Relocation
Unnamed Ephemeral Stream 5	162.5 linear feet	2 feet	Proposed Kane County Road 136 Relocation
Unnamed Ephemeral Stream 6	132 linear feet	2 feet	Proposed Kane County Road 136 Relocation

	Acreage	Location
Wetland 11	0.03 acres	Riparian wet meadow directly abutting Intermittent Segment 1
Wetland 12	0.02 acres	Riparian wet meadow directly abutting Intermittent Segment 1
Wetland 13	0.02 acres	Riparian wet meadow directly abutting Intermittent Segment 1
Wetland 14	341 sq ft (<0.01 acres)	Riparian wet meadow directly abutting Intermittent Segment 1
Wetland 15	0.02 acres	Riparian wet meadow directly abutting Intermittent Segment 1
Wetland 16	0.02 acres	Riparian wet meadow directly abutting Intermittent Segment 1

Unnamed Ephemeral Streams 1, 3 through 6 average approximately 2 feet in width and 1 foot in depth. The channel materials are mainly gravel with fine clays that may be carried with downstream surface flows. Lower Robinson Creek- Ephemeral and Intermittent Segments are, incised, cobble and boulder-bedded channels averaging approximately 6 feet in width and 10 feet in depth. The channel materials include fine clays that may be carried with downstream surface flows.

During spring snowmelt or summer storm events, Unnamed Ephemeral Stream 1 flows into Lower Robinson Creek-Ephemeral Segment. Unnamed Ephemeral Stream 3 flows into Lower Robinson Creek-Intermittent Segment 1. Unnamed Ephemeral Streams 4 through 6 flow into Lower Robinson Creek-Intermittent Segment 2.

Lower Robinson Creek-Ephemeral Segment flows into Lower Robinson Creek-Intermittent Segment 1, which also receives perennial groundwater flow. Wetlands 11 through 16, directly abut and receive flow from Lower Robinson Creek-Intermittent Segment 1.

Alton Coal Development, LLC monitors water quality in Lower Robinson Creek-Intermittent Segment 1 (station BLM-1) in accordance with the DOGM, Coal Hollow Mine and Reclamation Plan (MRP). From March 2007 to November 2009, the minimum flow in Lower Robinson Creek was 1.49 gpm, the maximum was 25.4 gpm, and the average was 6.75 gpm. Lower Robinson Creek-Intermittent Segment 1 flows perennially into Lower Robinson Creek-Intermittent Segment 2.

The total length of Lower Robinson Creek, from its headwaters to Kanab Creek, is about 32,000 linear feet. The flow regime in the upper Lower Robinson Creek is ephemeral. In the project area, perennially flowing Intermittent Segments 1 and 2 have a combined length of 2079.5 linear feet, whereas the Ephemeral Segment is 5244 linear feet long. Intermittent Segments 1 and 2 are shorter than the Ephemeral Segment and the flow is not representative of the entire Lower Robinson Creek reach. Therefore, considering the relative segment lengths and flow regime, Lower Robinson Creek is a non-relatively permanent water.

The May 7, 2010 field visit found Lower Robinson Creek-Ephemeral Segment dry but surface water flow in the Lower Robinson Creek-Intermittent Segments 1 and 2. In Intermittent Segment 1, the observed surface water source was groundwater seeps. Wetlands 11 through 16 were observed directly abutting Intermittent Segment 1. Surface flow from Intermittent Segment 1 enters Intermittent Segment 2. No wetlands were found in Intermittent Segment 2. Surface flow from Lower Robinson Creek-Intermittent Segment 2 was observed beyond the project boundary. About 2500 feet from the project boundary, Lower Robinson Creek flows into Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW). About 30 miles downstream, Kanab Creek flows across the Kaibab Band of Paiute Indian Reservation near the Utah/Arizona border. Kanab Creek, an interstate water, continues through tribal lands for about 15 miles. Surface flows enter the Colorado River (TNW, Section 10 RHA) approximately 40 miles downstream of tribal lands and 70 miles south of the project.

When water is present, Unnamed Ephemeral Streams 1, 3 through 6, Lower Robinson Creek-Ephemeral Segment, and Lower Robinson Creek-Intermittent Segment 1 and 2 carries a significant sediment load to Kanab Creek. Wetlands 11 through 16, directly abutting Lower Robinson Creek-Intermittent Segment 1, trap and filter fine clays to reduce sediment loading.

Unnamed Ephemeral Streams 1, 3 through 6, Lower Robinson Creek-Ephemeral Segment, and Lower Robinson Creek-Intermittent Segment 1, Wetlands 11 through 16, and Lower Robinson Creek-Intermittent Segment 2 has a significant nexus to Kanab Creek (a perennial interstate [33 C.F.R. section 328.3(a)(2)] RPW) that is tributary to the Colorado River (TNW, Section 10 RHA).

Therefore, the Corps has determined that Unnamed Ephemeral Stream 1, 3 through 6, Lower Robinson Creek-Ephemeral Segment, Lower Robinson Creek-Intermittent Segment 1, Wetlands 11 through 16, and Lower Robinson Creek-Intermittent Segment 2 are jurisdictional because they are non-relatively permanent waters, or wetlands directly abutting non-relatively permanent waters, that meet the significant nexus standard as described in the Rapanos guidance, and that are tributary to Kanab Creek, an interstate water, that is tributary to the Colorado River, a traditionally navigable water.