

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): March 1, 2012

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

Denver Regulatory Office
Compark Development
199780436

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Co County/parish/borough: Douglas City: Parker
Center coordinates of site (lat/long in degree decimal format): Lat. 39.554033 N; Long. -104.824038 W
Name of nearest waterbody: Happy Canyon Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A
Name of watershed or Hydrologic Unit Code (HUC): 10190003

- 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: February 16, 2012
 Field Determination. Date(s): December 15, 2011

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 no** "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: linear feet: width (ft) and/or acres.
Wetlands: 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: This wetland is at the upper end of a drainage approximately 8,600 feet up-gradient from Happy Canyon Creek. The soil along the reach of this drainage is sandy and porous, which allows most normal flows to dissipate into the ground before reaching Happy Canyon Creek. Sporadic wetlands exist down-gradient, associated with culverts and grade control structures. No channel or tributary OHWM features exist down-gradient. 3,500 feet of upland swale, with no wetland inclusions, exists up-gradient of Happy Canyon Creek.

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

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.

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

(i) General Area Conditions:

Watershed size: 1815 square miles

Drainage area: 2 square miles

Average annual rainfall: 14 inches

Average annual snowfall: 40 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 0 tributaries before entering TNW.

Project waters are 5-10 river miles from TNW.

Project waters are 2-5 river miles from RPW.

Project waters are 5-10 aerial (straight) miles from TNW.

Project waters are 2-5 aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: There is no continuous flow route to a TNW. As such, this drainage/swale is not considered a tributary. The soil along the reach of this drainage is sandy and porous, which allows most normal flows to dissipate into the ground before reaching Happy Canyon Creek. No channel or tributary OHWM features exist down-gradient. 3,500 feet of upland swale, with no wetland inclusions, exists up-gradient of Happy Canyon Creek.

Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply): This drainage/swale displays no OHWM physical characteristics

Tributary is: Natural

Artificial (man-made). Explain:

Manipulated (man-altered). Explain:

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

Average width: feet

Average depth: 1 feet

Average side slopes: 3:1

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.

Primary tributary substrate composition (check all that apply):

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

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

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): **0.5 %**

(c) **Flow:**

Tributary provides for: **Ephemeral flow**

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

Describe flow regime: **There is no continuous flow route to a TNW. As such, this drainage/swale is not considered a tributary. The soil along the reach of this drainage is sandy and porous, which allows most normal flows to dissipate into the ground before reaching Happy Canyon Creek. No channel or tributary OHWM features exist down-gradient. 3,500 feet of upland swale, with no wetland inclusions, exists up-gradient of Happy Canyon Creek.**

Other information on duration and volume: **Flows from the project site would reach Happy Canyon Creek only during a 5 – 10 flow year event.**

Surface flow is: **Overland sheetflow.**

Characteristics: **The soil along the reach of this drainage is sandy and porous, which allows most normal flows to dissipate into the ground before reaching Happy Canyon Creek.**

Subsurface flow: **Unknown.** Explain findings:

- Dye (or other) test performed:

Tributary has (check all that apply): **This drainage/swale displays no OHWM physical characteristics**

- | | |
|---|---|
| <input type="checkbox"/> Bed and banks | |
| <input type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input checked="" type="checkbox"/> other (list): wetland only | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: | |

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

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

(iii) **Chemical Characteristics:**

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

Explain: **There is no continuous flow route to a TNW. As such, this drainage/swale is not considered a tributary. The soil along the reach of this drainage is sandy and porous, which allows most normal flows to dissipate into the ground before reaching Happy Canyon Creek. No channel or tributary OHWM features exist down-gradient. 3,500 feet of upland swale, with no wetland inclusions, exists up-gradient of Happy Canyon Creek.**

Identify specific pollutants, if known:

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

- Riparian corridor. Characteristics (type, average width): **upland grass and weeds**
- Wetland fringe. Characteristics:

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.

- Habitat for:
 - Federally Listed species. Explain findings: .
 - Fish/spawn areas. Explain findings: .
 - Other environmentally-sensitive species. Explain findings: .
 - Aquatic/wildlife diversity. Explain findings: **wetland habitat for wildlife adapted to life on the high plains. Corridor generally has upland vegetation throughout the upland swales, supporting natural high plains wildlife and birds.**

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: **1.36** acres

Wetland type. Explain: **PEM.**

Wetland quality. Explain: **Poor.**

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **No Flow**. Explain: **There is no continuous flow route to a TNW. As such, this drainage/swale is not considered a tributary. The soil along the reach of this drainage is sandy and porous, which allows most normal flows to dissipate into the ground before reaching Happy Canyon Creek. No channel or tributary OHWM features exist down-gradient. 3,500 feet of upland swale, with no wetland inclusions, exists up-gradient of Happy Canyon Creek..**

Surface flow is: **Overland sheetflow**

Characteristics: **There is no continuous flow route to a TNW. As such, this drainage/swale is not considered a tributary. The soil along the reach of this drainage is sandy and porous, which allows most normal flows to dissipate into the ground before reaching Happy Canyon Creek. No channel or tributary OHWM features exist down-gradient. 3,500 feet of upland swale, with no wetland inclusions, exists up-gradient of Happy Canyon Creek.**

Subsurface flow: **Unknown**. Explain findings: .

Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW: **This wetland is at the upper end of a drainage approximately 8,600 feet up-gradient from Happy Canyon Creek. The soil along the reach of this drainage is sandy and porous, which allows most normal flows to dissipate into the ground before reaching Happy Canyon Creek. Sporadic wetlands exist down-gradient, associated with culverts and grade control structures. No channel or tributary OHWM features exist down-gradient. 3,500 feet of upland swale, with no wetland inclusions, exists up-gradient of Happy Canyon Creek. These wetlands are not adjacent to any tributary.**

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: **No Flow**.

Estimate approximate location of wetland as within the **Pick List** 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: .

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

Riparian buffer. Characteristics (type, average width): .

Vegetation type/percent cover. Explain: .

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: **2**

Approximately (1.36) 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 1	1.10		
Wetland 2	0.26		

Summarize overall biological, chemical and physical functions being performed: The biological function provides habitat for micro and macro invertebrates including annelids, arthropods, arachnids and amphibians, which may be a food source for birds, rodents, small carnivorous mammals and reptiles. The vegetation may provide cover and a food source for rabbits and certain birds and other wildlife associated with the high plains. Chemical function is most likely insignificant given that flows from these wetlands would rarely, if ever, reach a downstream TNW.

C. SIGNIFICANT NEXUS DETERMINATION

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

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:

Findings of absence of significant nexus.

Drainage (locally called Green Acres Tributary):

This wetland is at the upper end of a drainage approximately 8,600 feet up-gradient from Happy Canyon Creek. The soil along the reach of this drainage is sandy and porous, which allows most normal flows to dissipate into the ground before reaching Happy Canyon Creek. Sporadic wetlands exist down-gradient, associated with culverts and grade control structures at E-470, Compark Blvd, and South Chambers Road. No channel or tributary OHWM features exist down-gradient. 3,500 feet of upland swale, with no wetland inclusions, exists up-gradient of Happy Canyon Creek.

During a January 9, 2012 discussion with the Town of Parker's Engineering Manager, it was determined the flows from the project site would reach Happy Canyon Creek only during a 5 – 10 flow year event. He stated that he has driven over Jordon Road at the intersection of this drainage and Happy Canyon Creek for several years and has never seen water flowing from this drainage into Happy Canyon Creek.

Wetlands at the project site are approximately 8,600 feet up-gradient of Happy Canyon Creek. From this intersection, Happy Canyon Creek, and ephemeral non-RPW, flows for approximately 2,800 feet to its confluence with Cherry Creek, an RPW. From this confluence, Cherry Creek flows for approximately 5.45 miles to Cherry Creek Reservoir, a TNW.

The entire Cherry Creek drainage including East and West Cherry Creek is 400 square miles. The drainage comprises less than 0.001% of the total Cherry Creek watershed, which includes Cherry Creek Reservoir.



