

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 08-Dec-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Alaska District, POA-2008-01583-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : AK - Alaska
 County/parish/borough: Matanuska-Susitna
 City: Talkeetna
 Lat: 62.671
 Long: -150.1306
 Universal Transverse Mercator Folder UTM List
UTM list determined by folder location
 Enter POA-2008-01583 location information to display the UTM list.
 Waters UTM List
UTM list determined by waters location
 ► NAD83 / UTM zone 41S

Name of nearest waterbody: Troublesome Creek

Name of nearest Traditional Navigable Water (TNW): Chulitna 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 the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:



Office Determination Date: 08-Dec-2008



Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There [] "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.



Waters subject to the ebb and flow of the tide.



Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area:¹

Water Name	Water Type(s) Present
Cascade Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Cascade Creek	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
Troublesome Creek	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

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

Area: 5 (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: 1987 Delineation Manual.

OHWB Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

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

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

(i) General Area Conditions:

Watershed size: []
 Drainage area: []
 Average annual rainfall: inches
 Average annual snowfall: inches

(ii) Physical Characteristics

(a) Relationship with TNW:

- Tributary flows directly into TNW.
 - Tributary flows through [] tributaries before entering TNW.
- :Number of tributaries

Project waters are [] river miles from TNW.
 Project waters are [] river miles from RPW.
 Project Waters are [] aerial (straight) miles from TNW.
 Project waters are [] aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:
 Identify flow route to TNW:⁵

Tributary Stream Order, if known:

Order	Tributary Name
1	Cascade Creek

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
Cascade Creek	X	-	-	-	-

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

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Cascade Creek	-	-	-

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
Cascade Creek	-	-	-	-	-	-	-	-	-

Tributary (conditions, stability, presence, geometry, gradient):

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
Cascade Creek	-	-	-	-

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
Cascade Creek	Seasonal flow	-	-	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Cascade Creek	-	-

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Cascade Creek	-	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
Cascade Creek	X	X	-	-

Tributaries with OHWM⁶ - (as indicated above)
Not Applicable.

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

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

(iii) Chemical Characteristics:

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

Tributary Name	Explain	Identify specific pollutants, if known
Cascade Creek	-	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Cascade Creek	X	This tributary flows into a stream which does support anadromous fish.	X	This tributary flows into a wetland complex at the north east end of Byers Lake.	X

Habitat for: (as indicated above)

Tributary Name	Habitat	Federally Listed Species	Explain Findings	Fish/Spawn Areas	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic/Wildlife Diversity	Explain Findings
Cascade Creek	X	-	-	-	-	-	-	X	Cascade Creek is a tributary which flows into Byers Creek, as such it is a source of aquatic invertebrates which sustain anadromous fish in Byers Creek (these fish may also ascend into Cascade Creek, but no studies have been done to document this).

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland Name	Size (Acres)	Wetland Type	Wetland Quality	Cross or Serve as State Boundaries. Explain
Cascade Creek	2	Palustrine scrub/shrub and palustrine forested wetlands	-	-
		Patches of both freshwater emergent and		

Troublesome Creek	2	freshwater forested/shrub wetland are found along the length of Troublesome Creek, which the existing trail crosses and likely the repaired trail will cross as well	-	-
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(b) General Flow Relationship with Non-TNW:**Flow is:**

Not Applicable.

Surface flow is:

Wetland Name	Flow	Characteristics
Cascade Creek	-	-
Troublesome Creek	-	-

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Cascade Creek	-	-	-
Troublesome Creek	-	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
Cascade Creek	Yes	X	X	-
Troublesome Creek	Yes	-	X	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
Cascade Creek	1 (or less)	-	Navigable waters to wetland	2-year or less
Troublesome Creek	1 (or less)	1 (or less)	Wetland to navigable waters	2 - 5-year

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

Wetland Name	Explain	Identify specific pollutants, if known
Cascade Creek	-	-
Troublesome Creek	-	-

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
Cascade Creek	X	Byers Creek flows within this wetland for approximately 500 ft. or so.	X	Palustrine shrub and forested wetland cover is expected.
Troublesome Creek	X	palustrine emergent; palustrine forested	-	-

Habitat for:

Wetland Name	Habitat	Federally Listed Species	Explain Findings	Spawn Area	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic/Wildlife Diversity	Explain Findings
Cascade Creek	X	-	-	X	Byers Creek has documented fish usage by silver and coho salmon (ref. ADF&G fish distribution list).	-	-	X	Diversity of aquatic invertebrate sufficient to sustain salmon fry.
Troublesome Creek	X	-	-	X	Troublesome Creek provides habitat for coho, pink and silver salmon (lower) and coho and king salmon (upper).	-	-	X	aquatic invertebrate diversity sufficient to sustain salmon fish fry

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

All wetlands being considered in the cumulative analysis:

Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

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

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Wetland Name	Flow	Explain
Cascade Creek	SEASONAL	Cascade Creek is a small tributary which flows directly into Byers Creek, which supports silver and coho salmon, coho (ADF&G Fish Distribution Mapping). Since Cascade creek is not shown as supporting anadromous fish, there is not evidence that it is a perennial stream.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Cascade Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	4023.36	-
Total:		4023.36	0

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

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

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

Wetland Name	Flow	Explain
Cascade Creek	PERENNIAL	Wetlands labeled palustrine scrub/shrub by NWI and also forested wetlands about the mouth of Cascade Creek (and also the area at the start of the Cascade Trail, which is to be repaired).
Troublesome Creek	PERENNIAL	The various patches of fresh water forested shrub wetlands are adjacent to Troublesome Creek, an anadromous stream which flows into the Chulitna River.

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Cascade Creek	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	8093.712
Troublesome Creek	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	8093.712
Total:		0	16187.424

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

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

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

Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:

Not Applicable.

7. Impoundments of jurisdictional waters:⁹

Not Applicable.

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

Not Applicable.

Identify water body and summarize rationale supporting determination:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR):

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):

Other (Explain):

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

Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.

Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD

(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	Maps, description of two proposed project sites	FEMA consultant, Jim Keany, DEAW, Seattle, WA, 98104
--U.S. Geological Survey map(s).	-	-
--National wetlands inventory map(s).	-	-
--National wetlands inventory map(s).	Talkeetna C-1	NWI overlay onto Google Earth map
--Applicable/supporting case law	SEction 404	Clean WAtter Act

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description
Troublesome Creek supports spawning anadromous fish, coho, pink, chum and king salmon; Cascade Creek is a tributary that flows into Byers Creek, which supports silver and coho salmon (ADF&G fish distribution list 2008).

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.

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

⁵-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

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

⁷-Ibid.

⁸-See Footnote #3.

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

¹⁰Prior 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.