

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 09-Sep-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Alaska District, POA-2008-01285-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : AK - Alaska
County/parish/borough: Fairbanks North Star
City: North Pole
Lat: 64.8076
Long: -147.5
Universal Transverse Mercator: []
Name of nearest waterbody: Drainage Channel B
Name of nearest Traditional Navigable Water (TNW): Chena 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-Sep-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
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b. Identify (estimate) size of waters of the U.S. in the review area:Area: (m²)

Linear: (m)

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

OHWM 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:**

Not Applicable.

(b) General Tributary Characteristics:

Tributary is:
Not Applicable.

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

Not Applicable.

Primary tributary substrate composition:

Not Applicable.

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

Not Applicable.

(c) Flow:

Not Applicable.

Surface Flow is:

Not Applicable.

Subsurface Flow:

Not Applicable.

Tributary has:

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.).

Not Applicable.

(iv) Biological Characteristics. Channel supports:

Not Applicable.

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. E
POA-2008-1285, Drainage Channel B	9.5	Saturated palustrine broad-leaved deciduous scrub-shrub and emergent persistent.	-	-

(b) General Flow Relationship with Non-TNW:

Flow is:

Not Applicable.

Surface flow is:

Wetland Name	Flow	Characteristics
POA-2008-1285, Drainage Channel B	-	-

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
POA-2008-1285, Drainage Channel B	-	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separate Berm/Barrier
POA-2008-1285, Drainage Channel B	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
POA-2008-1285, Drainage Channel B	-	1-2	Wetland to navigable waters	-

(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
POA-2008-1285, Drainage Channel B	-	-

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Exp
POA-2008-1285, Drainage Channel B	-	-	-	-

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:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

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
POA-2008-1285, Drainage Channel B	PERENNIAL	Aerial photos and personal observations show that Drainage Channel B holds water year-round thus Drainage Channel B is a perennial RPW. Drainage Channel B is tributary to the Chena River which is on the Alaska District List of Navigable Waters and is a TNW.

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area)
POA-2008-1285, Drainage Channel B	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	38445.1
Total:		0	38445.1

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	-	-
--USDA Natural Resources Conservation Service Soil Survey.	2005 Greater Fairbanks Area automated (GIS)	-
--National wetlands inventory map (s).	Fairbanks D-1 and Fairbanks D-2 automated (GIS)	-
--State/Local wetland inventory map(s):	Corps Wetland Map #233	-
--Photographs	-	-
----Aerial	2007 FNSB Ortho Quad	From Borough GIS website
----Aerial	2002-3 Fairbanks Quickbird Aerial	From Borough GIS website
--Applicable/supporting scientific literature	Glass et al. 1996	Glass, Roy L., Michael R. Lilly, and David F. Meyer. 1996. Ground-water levels in an alluvial plain between the Tanana And Chena rivers near Fairbanks, Alaska, 1986-93. U.S. Geological Survey Water-Resources Investigations Report 96-4060. 39 pages + appendices.

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

Records from three observation wells proximate to the subject property provide data on groundwater levels. The wells were dug by U and monitored between June 1980 and March 1982, and again from September 1986 to August 1988 (Glass et al. 1996). Well BR-08 located less than ¼ mile from the southwest corner of Tract 1, well BR-07 was situated approximately ¾ mile east of the southeast corner of Tract 2, and well BR-11 was located about ¾ mile northeast of the northeast corner of Tract 2. A fourth well, FP-75, was located at ½ mile north of the northwest corner of Tract 1, and was monitored for approximately one year (September 1987 to August 1988). Data from this well are not included here because of the relatively small monitoring period and because its sampling period is not included within the observation periods of the other three wells. The lowest and highest water levels observed in each well are listed below in feet below land surface (fbls). BR-08: lowest 3.61 highest 0.20 BR-07: lowest 5.17 highest 1.23 BR-11: lowest 3.57 highest 0.55 According to the USGS, results of their study show the alluvial plain between the Chena and Tanana rivers is underlain by a highly transmissive aquifer in which groundwater is usually unconfined. Groundwater flow in the project area is to the northwest, generally from the Tanana River towards the Chena River. Further, these data strongly suggest that water levels in the project area fluctuate in concert with water levels in the Tanana and Chena rivers, and thus is hydrologically connected to these waters. The project area is situated on the alluvial plain between the Tanana River on the south and the Chena River to the north. This area is characterized by low relief and a high water table. The NWI Map shows the two subject properties located within a very large area of wetlands adjacent to the Tanana River, a TNW. The Richardson Highway and the Tanana River Levee run across the southern portion of the wetland area. The NWI Map shows wetlands on both sides of the highway and the levee. The highway is culverted where Drainage Channel B flows under it. Drainage Channel B was designed to capture shallow subsurface flow and redirect it into the Chena River, a TNW. Aerial photos and personal observations show that Drainage Channel B holds water year-round, thus Drainage Channel B is a perennial RPW.

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.

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.