

**DRY LAND APPROVED JURISDICTIONAL DETERMINATION FORM<sup>1</sup>**  
**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): October 28, 2019**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: POA-2019-00592; Crooked Creek Residential Construction**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: Alaska County/parish/borough: Bethel Census Area City: Crooked Creek  
Center coordinates of site (lat/long in degree decimal format): Lat. 61.86987 °, Long. -158.12623 °  
Name of nearest waterbody: Crooked Creek  
Name of watershed or Hydrologic Unit Code (HUC): Crooked Creek; 1903050108

- Check if map/diagram of review area is 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: October 28, 2019  
 Field Determination. Date(s):

**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.

**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.

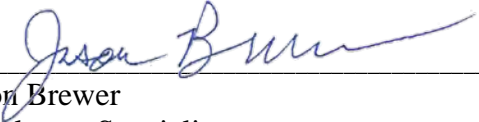
**SECTION III: DATA SOURCES.**

**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:  
 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:  
 U.S. Geological Survey Hydrologic Atlas: Hydrologic Atlas 730-N  
 USGS NHD data.  
 USGS 8 and 12 digit HUC maps.  
 U.S. Geological Survey map(s). Cite scale & quad name: Sleetmute D-6 SW; 1:24,000  
 USDA Natural Resources Conservation Service Soil Survey. Citation: Western Interior Rivers Area; MU Symbol: 30FP03  
 National wetlands inventory map(s). Cite name: USFWS Wetland Mapper: Accessed Oct 2019  
 State/Local wetland inventory map(s):  
 FEMA/FIRM maps:  
 100-year Floodplain Elevation is:  
 Photographs:  Aerial (Name & Date): June 6, 2018 (Digital Globe)  
 or  Other (Name & Date):  
 Previous determination(s). File no. and date of response letter: POA-2011-00498 (June 3, 2011)  
 Applicable/supporting case law:  
 Applicable/supporting scientific literature:  
 Other information (please specify): Previous Corps determination AJD found only uplands on this terrace above Crooked Creek. This previous AJD for uplands is very near the proposed project site. It is also noted that two structures already exist in this very same area. No permit was pursued for them (or at least there is no ORM entry). They also are in uplands, therefore no permit would have been required for them either.

<sup>1</sup> This form is for use only in recording approved JDs involving dry land. It extracts the relevant elements of the longer approved JD form in use since 2007 for aquatic areas and adds no new fields.

**B. REQUIRED ADDITIONAL COMMENTS TO SUPPORT JD. EXPLAIN RATIONALE FOR DETERMINATION THAT THE REVIEW AREA ONLY INCLUDES DRY LAND:** The site is on a terrace of the Crooked Creek floodplain. The National Wetlands Inventory shows the site is not within an area that contains wetlands. This is also supported by the satellite imagery, which shows the site is between some linear, remnant water features associated with the past movement of the Crooked Creek. The Western Interior Rivers Area survey indicates the soils are predominantly "30FP03 Takotna family-Gerstle family complex" and have a coarse-loamy alluvium parent material. This soil is moderately well-drained with a fairly deep water table (>31"), deep restrictive layer (>80"), and is rated not hydric. The primary vegetation groupings are cottonwood/alder, cottonwood/horsetail, and white spruce/paper birch/alder, which are not hydrophytic vegetation indicators.



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Jason Brewer  
Regulatory Specialist  
North Section

October 28, 2019

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Date

Soil Map—Western Interior Rivers Area, Alaska  
(POA-2019-00592 Crooked Creek Residential Construction)

158° 7' 53" W

158° 7' 18" W

61° 52' 16" N

61° 52' 16" N

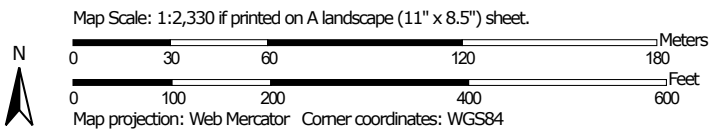


61° 52' 6" N

61° 52' 6" N

158° 7' 53" W

158° 7' 18" W



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:63,400.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Interior Rivers Area, Alaska  
Survey Area Data: Version 13, Sep 13, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 4, 2009—Jul 10, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
30FP03	Takotna family-Gerstle family complex, 0 to 3 percent slope	9.0	97.7%
30TQ02	Teggiuq peat, 8 to 15 percent	0.2	2.3%
<b>Totals for Area of Interest</b>		<b>9.2</b>	<b>100.0%</b>

## Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

## Western Interior Rivers Area, Alaska

### 30FP03—Takotna family-Gerstle family complex, 0 to 3 percent slope

#### Map Unit Setting

*National map unit symbol:* 21yn6

*Elevation:* 50 to 220 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 28 to 30 degrees F

*Frost-free period:* 95 to 135 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*30-takotna family and similar soils:* 50 percent  
*30-gerstle family and similar soils:* 40 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of 30-takotna Family

#### Setting

*Landform:* Flood plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear, concave  
*Parent material:* Coarse-loamy alluvium

#### Typical profile

*Oe - 0 to 1 inches:* moderately decomposed plant material  
*A - 1 to 3 inches:* very fine sandy loam  
*C1 - 3 to 28 inches:* stratified moderately decomposed plant material to silt loam to fine sand  
*C2 - 28 to 60 inches:* stratified very fine sandy loam to silt loam

#### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Moderately well drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):*  
Moderately high to high (0.20 to 1.98 in/hr)  
*Depth to water table:* About 31 to 59 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* None  
*Available water storage in profile:* Very high (about 21.8 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* B  
*Other vegetative classification:* Cottonwood broadleaf/alder (CO/AL), Cottonwood broadleaf/horsetail (CO/EQ), White spruce-paper birch/alder (WS-PB/AL)  
*Hydric soil rating:* No

### Description of 30-gerstle Family

#### Setting

*Landform:* Terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear, concave  
*Parent material:* Loamy alluvium



### Typical profile

*Oe - 0 to 4 inches:* moderately decomposed plant material  
*A/E - 4 to 7 inches:* very fine sandy loam  
*Bw - 7 to 16 inches:* very fine sandy loam  
*BC - 16 to 47 inches:* fine sandy loam  
*C - 47 to 60 inches:* fine sandy loam

### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):*  
Moderately high to high (0.20 to 1.98 in/hr)  
*Depth to water table:* About 20 to 30 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* None  
*Available water storage in profile:* Very high (about 12.8 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4c  
*Hydrologic Soil Group:* B  
*Other vegetative classification:* Paper birch broadleaf/horsetail-grass (PB/EQ-GRASS), White spruce-paper birch/alder (WS-PB/AL)  
*Hydric soil rating:* No

### Minor Components

#### 30-uknavikfamily

*Percent of map unit:* 10 percent  
*Landform:* Alluvial fans  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex  
*Other vegetative classification:* Paper birch broadleaf/horsetail-grass (PB/EQ-GRASS), White spruce needleleaf/horsetail-grass (WS/EQ-GRASS)  
*Hydric soil rating:* Yes

## Data Source Information

Soil Survey Area: Western Interior Rivers Area, Alaska  
Survey Area Data: Version 13, Sep 13, 2019