

**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):** January 24, 2023

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER:** Alaska District, POA-2022-00484

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

State: Alaska                      City: Anchorage  
Center coordinates of site (lat/long in degree decimal format): Lat. 61.0649 ° N., Long. 149.7130 °W.  
Name of nearest waterbody: unnamed tributary to Little Rabbit Creek  
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A  
Name of watershed or Hydrologic Unit Code (HUC): 190204010701

- 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: 1/5/2023  
 Field Determination.                      Date(s): 6/24/2022 (draft field determination performed by Hemlock Scientific LLC on June 24, 2022 and July 4, 2022 and submitted to USACE on September 27, 2022)

**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 and are not “*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):<sup>1</sup>**

- TNWs, including territorial seas  
 Wetlands adjacent to TNWs  
 Relatively permanent waters<sup>2</sup> (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: N/A  
Wetlands: N/A

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> 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).

c. **Limits (boundaries) of jurisdiction based on:** 1987 Delineation Manual  
Elevation of established OHWM (if known): N/A

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

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

Explain:

A wetland delineation report was prepared by Pat Athey of Hemlock Scientific, LLC, dated July 21, 2022. The U.S. Army Corps of Engineers concurs with the conclusions of this delineation report that the 1.130-acre review area (RA) (the boundaries of Lot 2 in the Hunter Heights Subdivision) contains a 0.006-ac wetland. The wetland is a concave, depressional wetland located on a mountainside at a 10% slope. Based on the data sheets in the delineation, hydrophytic vegetation, hydric soils, and hydrology are all present in the 0.006-ac area near the southeast corner of the RA. However, no indication could be found of recent flow or jurisdictional hydrologic connection of the wetland to a WOUS. In a conversation with the consultant, he confirmed that there is not surface water flow or shallow subsurface flow from the wetland or connection to other waters. There appears to be a non-jurisdictional ditch on the north side of the neighbor's property along Paine Rd that appears to go through a culvert under King's Way Dr and connect to Little Rabbit Creek, but the contours indicate that any water movement from the wetland area would be to the west/northwest and dissipate in sheet flow into the neighbor's yard with no connection to this ditch. None of the following three criteria for adjacency could be established: 1. The presence of an unbroken hydrologic connection to jurisdictional waters; 2. The presence of physical barriers between wetlands and jurisdictional waters (e.g., man-made dikes or barriers; natural river berms); or 3. Reasonably close physical proximity to jurisdictional waters that provides an ecological interconnection.

Therefore, this is an isolated, intra-state, and non-navigable wetland that has no connection to interstate or foreign commerce. There is no evidence of a surface water connection or shallow, sub-surface water connection from this wetland to any water of the U.S. based upon observations made by the consultant during the wetland delineation, and there is no connectivity to other wetlands. Available mapping also indicates that topography isolates this wetland from the nearest relatively permanent water, Little Rabbit Creek, downslope from the wetland by 500 feet on the other side of a house, driveway, and road (with no culvert connecting them). Available mapping and the wetland delineation support this finding.

See Sections III.F & IV.B.

**SECTION III: CWA ANALYSIS**

**A. TNWs AND WETLANDS ADJACENT TO TNWs**

**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: N/A

Summarize rationale supporting determination: N/A

**2. Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is "adjacent": N/A

**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**

<sup>3</sup> Supporting documentation is presented in Section III F.

(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 waterbody<sup>4</sup> 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:  
Drainage area:

Average annual rainfall:  
Average annual snowfall:

(ii) Physical Characteristics:

(a) Relationship with TNW:

- Tributary flows directly into TNW.
- Tributary flows through tributaries before entering TNW.

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<sup>5</sup>:  
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:  
Average depth:  
Average side slopes:

Primary tributary substrate composition (check all that apply):

Silts       Sands       Concrete  
 Cobbles       Gravel       Muck

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

<sup>5</sup> 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.

- Bedrock       Vegetation. Type/% cover:
- Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:  
 Presence of run/riffle/pool complexes. Explain:  
 Tributary geometry:  
 Tributary gradient (approximate average slope):

(c) **Flow:**

Tributary provides for:  
 Estimate average number of flow events in review area/year:  
     Describe flow regime:  
 Other information on duration and volume:  
 Surface flow is:      Characteristics:  
 Subsurface flow: Explain findings:  
      Dye (or other) test performed:

Tributary has (check all that apply):

- Bed and banks
- OHWM<sup>6</sup> (check all indicators that apply):
  - clear, natural line impressed on the bank
  - 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.<sup>7</sup> Explain:
- the presence of litter and debris
- 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):

- |  |  |
|--|--|
| <input 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:  
 Identify specific pollutants, if known:

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

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
  - Federally Listed species. Explain findings:

<sup>6</sup> 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.

<sup>7</sup> Ibid.

- 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:
  - Wetland type. Explain:
  - Wetland quality. Explain:
- Project wetlands cross or serve as state boundaries. Explain:

**(b) General Flow Relationship with Non-TNW:**

- Flow is: Choose an item. Explain:
- Surface flow is:
  - Characteristics:
- Subsurface flow: Explain findings:
  - 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:
  - Separated by berm/barrier. Explain:

**(d) Proximity (Relationship) to TNW**

- Project wetlands are    river miles from TNW.
- Project waters are    aerial (straight) miles from TNW.
- Flow is from:
- Estimate approximate location of wetland as within the    floodplain.

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**(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:
- Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)      Size (in acres)      Directly abuts? (Y/N)      Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

### 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:
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:

Wetlands adjacent to TNWs:

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:

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:

Other non-wetland waters:

Identify type(s) of waters:

**3. Non-RPWs<sup>8</sup> 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:

Other non-wetland waters:

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:

**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:

**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:

**7. Impoundments of jurisdictional waters.<sup>9</sup>**

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):<sup>10</sup>**

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:

<sup>8</sup> See Footnote #3.

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

<sup>10</sup> 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 Jurisdiction Following Rapanos.

**Identify water body and summarize rationale supporting determination:**

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters:
- Other non-wetland waters:  
Identify type(s) of waters:
- Wetlands:

**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):
- Lakes/ponds:
- Other non-wetland waters: List type of aquatic resource:
- Wetlands:

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):
- Lakes/ponds:
- Other non-wetland waters: List type of aquatic resource:
- Wetlands:

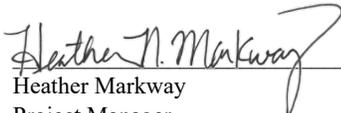
**SECTION IV: DATA SOURCES.**

**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):**

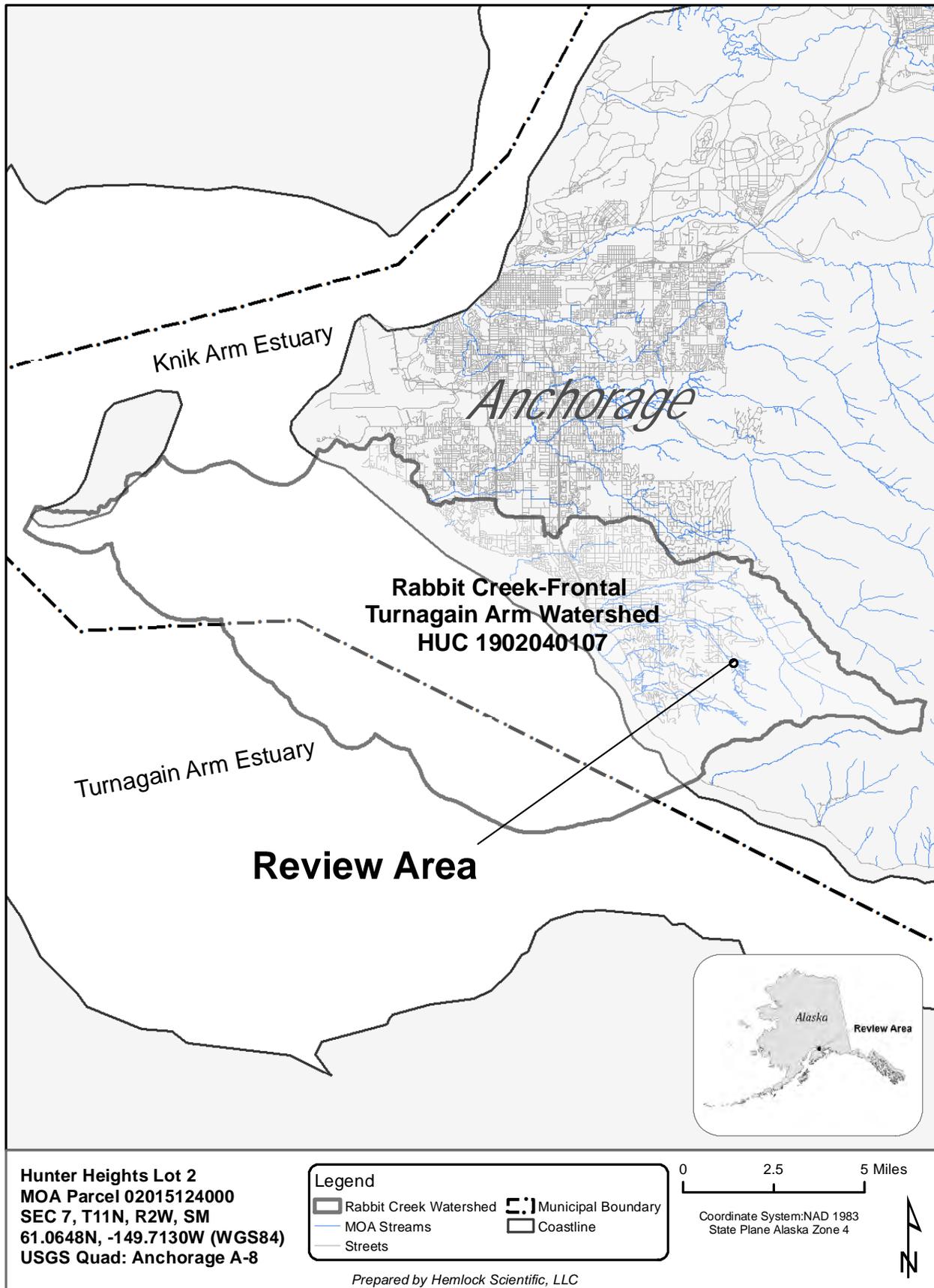
- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: prepared by the consultant, Pat Athney of Hemlock Scientific LLC, on behalf of Tina Sawtelle
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - Office concurs with conclusions of the data sheets/delineation report; however, we have determined that the wetland is non-jurisdictional.
  - 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.
- Alaska District’s Approved List of Navigable Waters
- 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: Online mapper
- State/Local wetland inventory map(s): Municipality of Anchorage Watershed Management Services Mapped Wetlands
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

- Photographs:  Aerial (Name & Date): GoogleEarth Pro (all historic available), Municipality of Anchorage aerials on the MOA MapIt! program (2006, 2015, 2021), aerials provided in the wetland delineation  
or  Other (Name & Date): Site photos in delineation dated 6/24/2022 & 7/4/2022
- Previous determination(s). File no. and date of response letter:
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify): 2015 Contour lines available on the Muni mapper (MOA MapIt!)

**B. ADDITIONAL COMMENTS TO SUPPORT JD:** The wetland is a 0.006-ac, concave, depressional wetland located on a mountainside at a 10% slope. After reviewing historic aerials, it appears that review area (RA) was cleared and graded sometime between 2004 and 2006. It also appears that prior to the grading and clearing of the RA, that a very large cross slope drainage ditch (25-ft wide, 10-ft deep, and over 1,000-ft long) was constructed 750 feet upslope, presumably to dewater the RA and adjacent parcels for development. There is some indication on old aerials that there has been water flow on the RA in the past with a small rill across the wetland delineation site as seen on a Spring 2015 aerial; however, it was likely from snowmelt. There has been much more vegetation regrowth since 2015, and no indication could be found of recent flow or jurisdictional hydrologic connection of the wetland to a WOUS. In a conversation with the consultant, he confirmed that there is not surface water flow or shallow subsurface flow from the wetland or connection to other waters. There appears to be a ditch on the north side of the neighbor's property along Paine Rd that appears to go through a culvert under King's Way Dr and connect to Little Rabbit Creek, but the contours indicate that any water movement from the wetland area would be to the west/northwest and dissipate in sheet flow into the neighbor's yard with no connection to this ditch. Review of aerials, data sheets, and site photos support our determination that the wetland is non-jurisdictional.

  
Heather Markway  
Project Manager  
South Section

24 January 2023  
Date





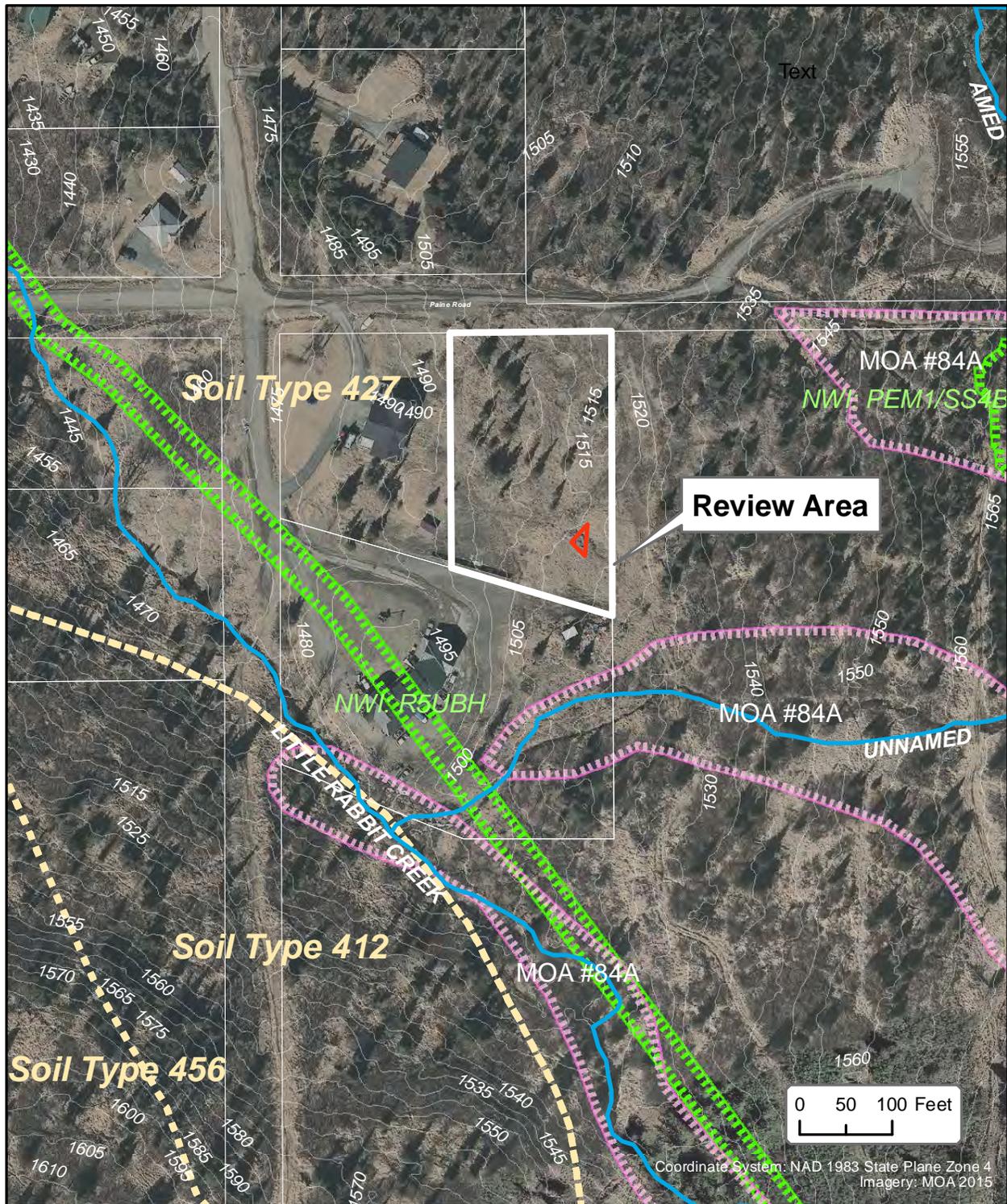
**HUNTER HEIGHTS SUBD. LOT 2**  
**MOA 02015124000**  
**61.0649°N 149.7130°W (NAD83)**  
**SEC 7, T11N, R2W, SM**  
**USGS QUAD: ANCHORAGE A-8**

**Legend**

Review Area	MARINE
Little Rabbit Cr	MOA-Mapped Stream



*Prepared by Hemlock Scientific, LLC*



**HUNTER HEIGHTS SUBD. LOT 2**  
**MOA 02015124000**  
**61.0649°N 149.7130°W (NAD83)**  
**SEC 7, T11N, R2W, SM**  
**USGS QUAD: ANCHORAGE A-8**

Legend			
	Review Area		MOA-Mapped Stream (11)
	Wetland		NRCS Soil Map
	MOA 5-ft Contours (2015)		MOA AWMP Wetland



Prepared by Hemlock Scientific, LLC



**HUNTER HEIGHTS SUBD. LOT 2**  
**MOA 02015124000**  
**61.0649°N 149.7130°W (NAD83)**  
**SEC 7, T11N, R2W, SM**  
**USGS QUAD: ANCHORAGE A-8**

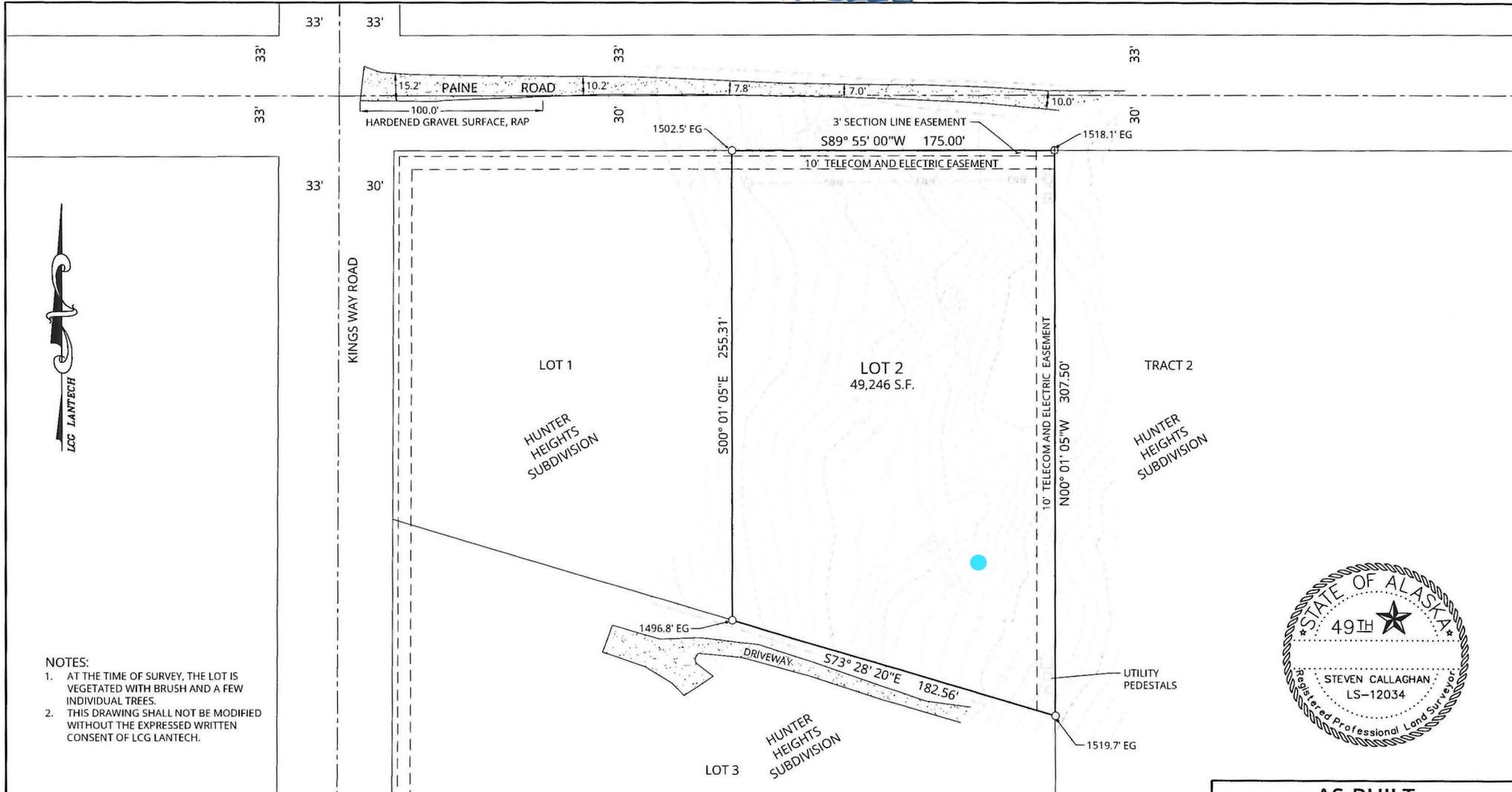
**Legend**

Review Area	MOA 5-ft Contours (2015)
Wetland	MOA-Mapped Stream
Determination Point	
Boundary Point	



*Prepared by Hemlock Scientific, LLC*

SAWTELLE



- NOTES:
1. AT THE TIME OF SURVEY, THE LOT IS VEGETATED WITH BRUSH AND A FEW INDIVIDUAL TREES.
  2. THIS DRAWING SHALL NOT BE MODIFIED WITHOUT THE EXPRESSED WRITTEN CONSENT OF LCG LANTECH.



- LEGEND:
- GRAVEL
  - UTILITY POLE
  - ELECTRIC TRANSFORMER
  - COM/PHONE PEDESTAL
  - CABLE TV PEDESTAL
  - Wetland
  - SPOT ELEVATION
  - EG EXISTING GROUND
  - MINOR CONTOUR
  - MAJOR CONTOUR
  - OVERHEAD POWER
  - DRAINAGE SWALE

**ICG Lantech Inc**  
*architecture · engineering · surveying*

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 AECC 668

ORDERED BY: TINA SAWTELLE

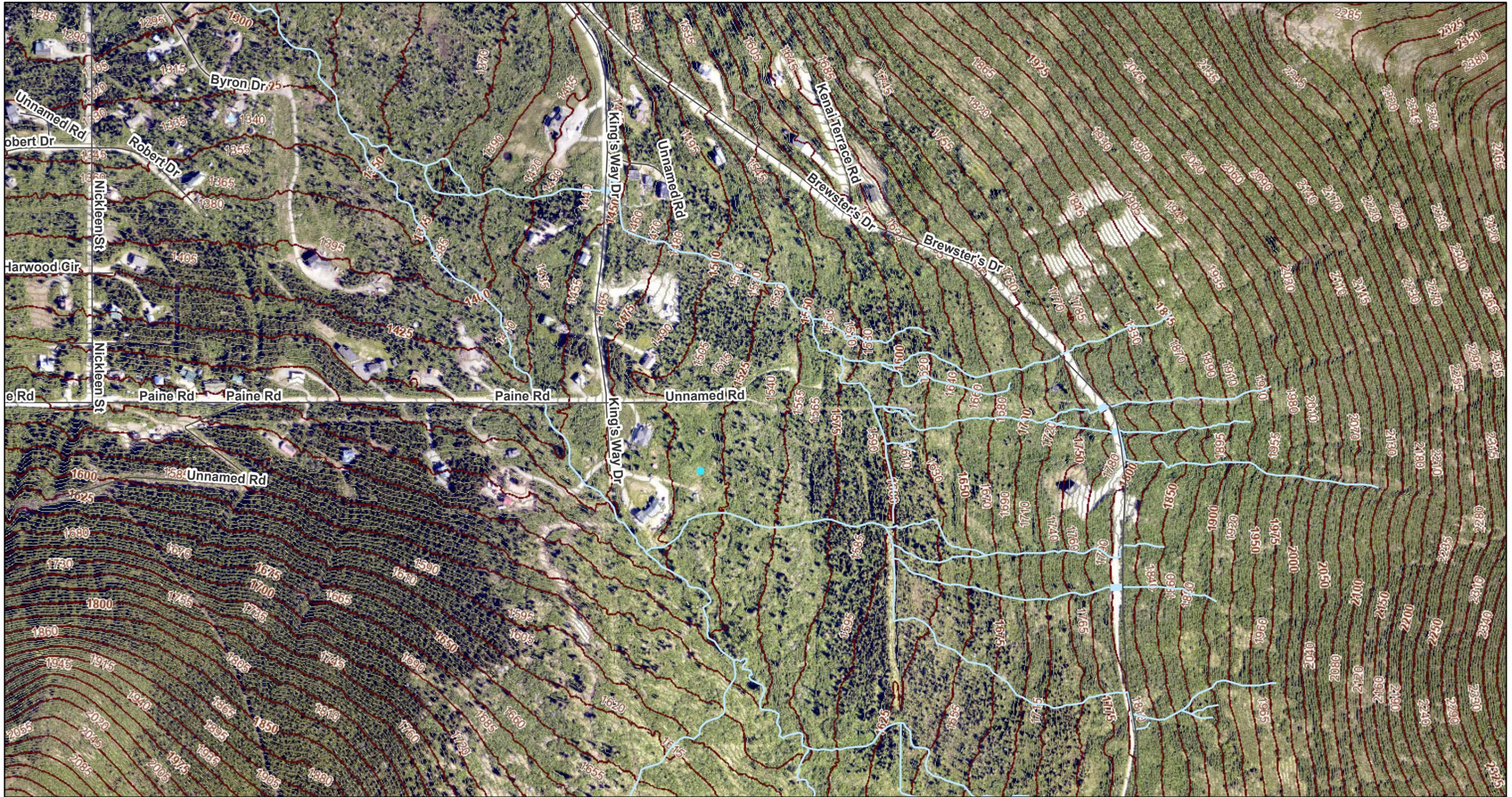
SURVEY CERTIFICATION: LCG LANTECH, INC HAS CONDUCTED A PHYSICAL SURVEY OF THE PROPERTY AS SHOWN ON THIS DRAWING AND CERTIFIES THAT THE IMPROVEMENTS SITUATED THEREON ARE WITHIN THE PROPERTY LINES AND NO ENCROACHMENTS EXIST OTHER THAN NOTED OR SHOWN.

EXCLUSIONARY NOTE: IT IS THE OWNERS' RESPONSIBILITY TO DETERMINE THE EXISTENCE OF ANY EASEMENTS, COVENANTS, RESTRICTIONS OR RIGHT-OF-WAY TAKINGS WHICH DO NOT APPEAR ON THE RECORDED SUBDIVISION PLAT. UNDER NO CIRCUMSTANCES SHOULD ANY DATA HEREON BE USED FOR CONSTRUCTION, FOR ESTABLISHING PROPERTY LINES, OR FOR PLOT-PLAN PURPOSES.

AS-BUILT	
ADDRESS: NHN PAINE ROAD	PARCEL #: 02015124000
LEGAL DESCRIPTION: <b>LOT 2 HUNTER HEIGHTS</b>	
DRAWN DATE: 06/17/2022	WORK ORDER: 22014
DRAWN BY: ADS/AP/CS/SC	PLAT: 2007-63
CHECKED BY: SC	GRID: SW3442
SCALE: 1" = 50'	FB/PG: 823/35 REF: N/A

# Municipality of Anchorage Aerial 2021 with Contours (2015)

January 19, 2023



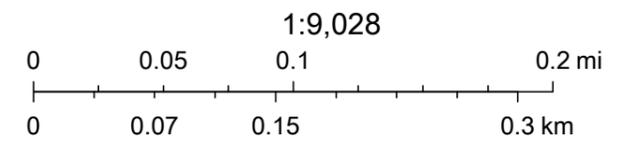
Contours- 5ft  
 — 25 ft  
 — 5 ft

— Streets

Streams

— OpenChannel  
 — Other

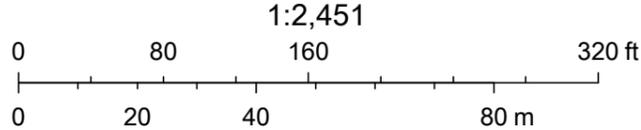
• RA Wetland



Esri, USGS, FEMA, Kenai Peninsula Borough, Municipality of Anchorage, State of Alaska, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, US Census



Property Information
 ● Wetland



# Municipality of Anchorage Aerial & Contours 2015

January 19, 2023



Contours - 1ft

- 5 ft
- 1 ft

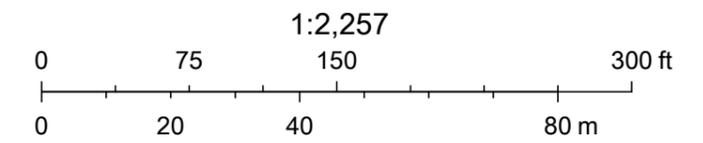
Streets

Property Information

Streams

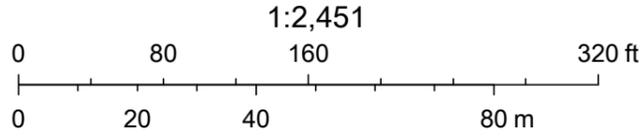
OpenChannel

Wetland





- Property Information
- Wetland
- OpenChannel
- Streams



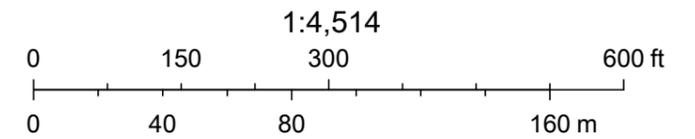
Kenai Peninsula Borough, Municipality of Anchorage, State of Alaska, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Sources: Esri, Airbus

# Municipality of Anchorage Aerial 2021 - with MoA Watershed Management Services Mapped Wetlands

January 19, 2023



- |                       |                     |                |
|-----------------------|---------------------|----------------|
| <b>Contours - 5ft</b> | <b>WMS Wetlands</b> | <b>Streams</b> |
| 25 ft                 | D - Undesignated    | OpenChannel    |
| 5 ft                  | Streets             | Other          |
| Property Information  | Wetland             |                |



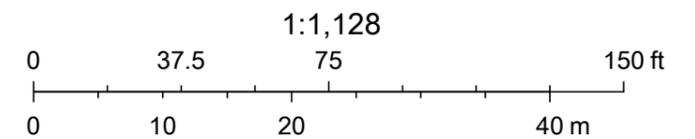
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# Municipality of Anchorage Aerial 2021 - with Contours (2015)

January 19, 2023



- |                |                      |             |
|----------------|----------------------|-------------|
| Contours - 1ft | WMS Wetlands         | Streams     |
| 5 ft           | D - Undesignated     | OpenChannel |
| 1 ft           | Streets              | Wetland     |
|                | Property Information |             |



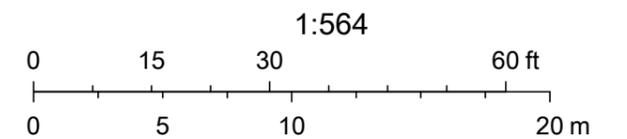
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Contours - 1ft  
— 5 ft  
— 1 ft

Property Information

Wetland



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