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): 10/31/2017

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Alaska District, POA-2017-526

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: Alaska Borough: FNSB City: SALCHA
Center coordinates of site (lat/long in degree decimal format): Lat. 64.59599 ° N., Long. -147.07154 °W.
Universal Transverse Mercator: Fairbanks
Name of nearest waterbody: Piledriver Slough
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Piledriver Slough
Name of watershed or Hydrologic Unit Code (HUC): HUC 19040507; Tanana River

☒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: 10/26/2017
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.

☐ 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 *"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 waters[2] (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:

[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.

Non-wetland waters:
Wetlands: 44.42

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual
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:

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: Piledriver Slough, main channel.
Summarize rationale supporting determination: Piledriver Slough is a former side channel of the Tanana River, it currently supports recreational boating. Prior to 1945, Piledriver Slough and Chena Slough were one continuous channel called "Chena Slough" that flowed northwest through the town of Fairbanks and then back into the Tanana River ant the west end of Fairbanks (Ihlenfeld 2006). The Chena River flowed into "Chena Slough" about 18 miles northeast of Fairbanks. These waterways provided the first highway system for trade and commerce within Fairbanks and to and from the young settlement.

2. Wetland adjacent to TNW
Summarize rationale supporting determination:
The project area sits directly between two channels of Piledriver Slough and is covered by a wetland complex (NWI, 2017). The main channel of Piledriver Slough south of the project area is considered adjacent to the wetland complex for several reasons. First, this wetland complex is in near proximity (approximately 115 feet north) of Piledriver Slough's main channel. It thus shares connectivity for ecosystem services such as wildlife refuge, feeding grounds and movement corridors. This is especially important for small amphibians, such as the wood frog, whose life cycle depends on forested as well as open water habitat (Muths et al 2005).

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 waterbody[4] 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

[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.

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 precipitation:

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐Tributary flows directly into TNW.
☐Tributary flows through 10 or more tributaries before entering TNW.

Identify flow route to TNW[5]:
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: 90 feet
Average depth: <10 feet
Average side slopes: <10 feet

Primary tributary substrate composition (check all that apply):
☐Silts ☐Sands ☐Concrete
☐Cobbles ☐Gravel ☐Muck
☐Bedrock ☐Vegetation. Type/% cover: emergent/60%
☐Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Low energy, low flow through volume, vegetated substrates and stable, vegetated banks
Presence of run/riffle/pool complexes. Explain: None.
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:

[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.

Tributary has (check all that apply):

☐Bed and banks

☐OHWM[6] (check all indicators that apply):

☐clear, natural line impressed on the bank	☐the presence of litter and debris
☐changes in the character of soil	☐destruction of terrestrial vegetation
☐shelving	☐the presence of wrack line
☐vegetation matted down, bent, or absent	☐sediment sorting
☐leaf litter disturbed or washed away	☐scour
☐sediment deposition	☐multiple observed or predicted flow events
☐water staining	☐abrupt change in plant community
☐other (list):	

☐Discontinuous OHWM.[7] Explain:

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

☐High Tide Line indicated by:	☐Mean High Water Mark indicated by:
☐oil or scum line along shore objects	☐survey to available datum;
☐fine shell or debris deposits (foreshore)	☐physical markings;
☐physical markings/characteristics	☐vegetation lines/changes in vegetation types.
☐tidal gauges	
☐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:

☒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: # acres

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:

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[6] A natural or man-made discontinuity in the OHWM does not necessarily server 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.

☐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:
Project waters are:
Flow is from:
Estimate approximate location of wetland as within the:

(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)
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#

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: # linear feet # width (ft), Or, # acres.

☒Wetlands adjacent to TNWs: 44.42 acres (the whole parcel)

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:

There is a RPW that abuts this property and its wetlands at the northeast parcel corner. Multiple current and historic map layers (USGS 1:250,000 Fairbanks 1956, USGS 1:63,360 Fairbanks C-1) and aerial imagery (Aeromap U.S. Inc. Fairbanks #97-14c Exp#1-3 1997, FNSB Pictometry 2012, FNSB SID 2002-2003, Google Earth Pro accessed 2017) show this northern slough with visible surface water in non-winter months. Quad maps show surface water labeled as 'stream', not 'intermittent' stream, indicating that data up to the time of map publication showed this slough as a permanent water body. Surface water flows from (at least) as far south as this project site to its confluence with the main Piledriver Slough channel ~4.2 river miles to the north.

☐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: acres.

Identify type(s) of waters:

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

[8] See Footnote #3.

☐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: The National Wetland Inventory maps this RPW as contiguous with (abutting) a Palustrine Scrub Shrub wetland for almost it's entire 4+ mile length as it flows north to join with Piledriver Slough's main channel south of Eielson AFB (on the east side of the Richardson Hwy).

☐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: 44.42 acres (the whole parcel)

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 jurisidictional. 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.[9]
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):[10]
☐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:

Identify water body and summarize rationale supporting determination:

[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 Jurisdiction Following Rapanos*.

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: FNSB Property Database map with hand drawn building/road locations.

☐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:

☐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: Fairbanks 1:250,000 (1956, rvsd. 1976), Fairbanks C-1 (1950, rvsd. 1970)

☒USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Salcha Big Delta Soil Survey (in draft, 2015), NRCS Greater Delta Soil Survey (2008).

☒National wetlands inventory map(s): USFW National Wetland Inventory, Fairbanks Quadrangle, NWI Fairbanks C1

☐State/Local wetland inventory map(s): N/A

☒FEMA/FIRM maps: FEMA Flood Map 02090C6425J (effective on 3/17/2014, accessed 10/31/2017)

100-year Floodplain Elevation is: not published for Zone A here (National Geodectic Vertical Datum of 1929)
☒Photographs: Aeromap US Inc. Fairbanks #97-14c Exp#1-3 1997
☒Aerial (Name & Date): FNSB Pictometry_2012_1meter_Mosaic_Partial.ecw, FNSB Pictometry_2012_9in_Eielson.sid, Google Earth Pro accessed 10-24-2017 (aerial and street view photos for vegetation detail), FNSB Pictometry 2012, FNSB SID 2002-2003
or ☐Other (Name & Date):
☒Previous determination(s). File no. and date of response letter:
☐Applicable/supporting case law:
☒Applicable/supporting scientific literature:

Muths, E., S. Rittman, J. Irwin, D. Keinath, and R. Scherer. 2005. Wood Frog (*Rana sylvatica*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region. http://www.fs.fed.us/r2/projects/scp/assessments/woodfrog.pdf (accessed 10/27/2017).

☒Other information (please specify):

Alaska Department of Fish and Game, Anadromous Fish Catalog. Geospatial data file. (accessed 10/26/2017).

Alaska Department of Natural Resources, Forest Vegetation File Geodatabase Feature Class. 2013(?). Division of Forestry.

Ihlenfeld, Nancy J. 2006. *Restoration of sloughs in the Fairbanks North Star Borough (Tanana River Watershed).* Alaska Department of Natural Resources Office of Habitat Management and Permitting, Technical Report No. 06-02.

Paddling Trips, 2008. *Piledriver Slough in Alaska.* https://paddling.com/paddle/trips/piledriver-slough-alaska/ (accessed 10/31/2017).

US Fish and Wildlife. 2003. *Piledriver Slough at Ingrid Drive, Fish Passage Project completed in October 2003,* https://www.fws.gob/Alaska/fisheries/fieldoffice/Fairbanks/piledriver_slough.htm (accessed 10/26/2017).

B. ADDITIONAL COMMENTS TO SUPPORT JD:

TIPPERY.AMY.CHRISTINE.1404644021
Digitally signed by TIPPERY.AMY.CHRISTINE.1404644021
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=TIPPERY.AMY.CHRISTINE.1404644021
Date: 2017.11.17 10:26:38 -09'00'

11/17/2017

Amy Tippery
Regulatory Specialist
North Section

Date