

Graphics developed by Stantec Consulting Services, Inc.



Project Origin: City of Kivalina,  
Kotzebue Recording District,  
Section 21, Township 27N, Range 26W,  
Kateel River Meridian

Project Terminus: Kisimigiqtuq Hill,  
Section 19, Township 28N, Range 25W  
Kateel River Meridian

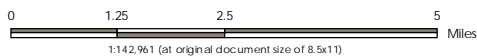
STATE OF ALASKA  
Department of Transportation and Public Facilities  
2301 Peger Road Fairbanks, AK 99709

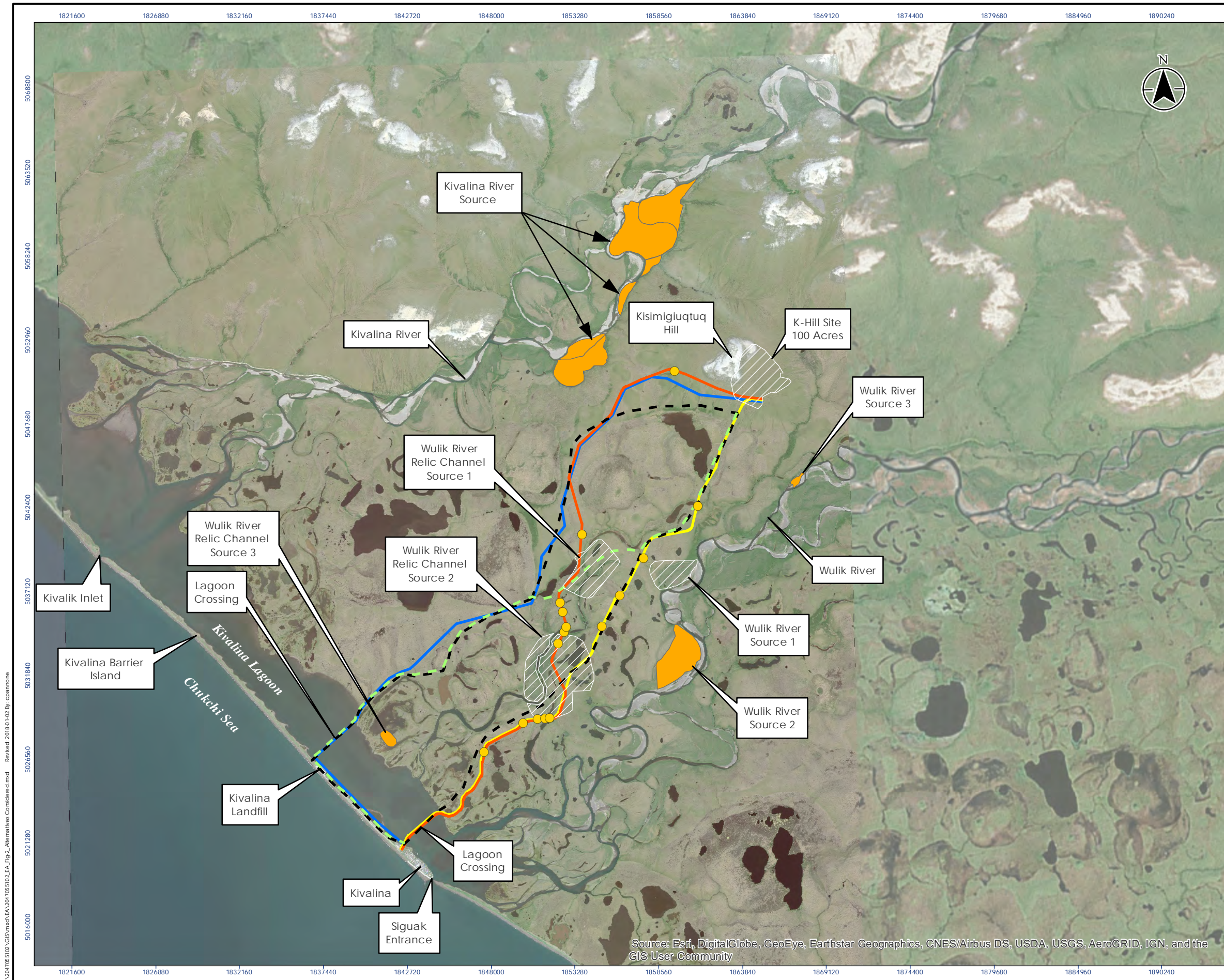
KIVALINA EVACUATION AND SCHOOL SITE  
ACCESS ROAD

**Location and Vicinity Map**

DATE: January, 2018

FIGURE 1

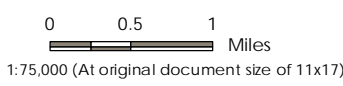




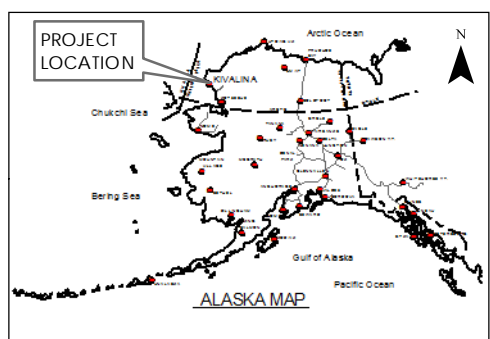
**Legend**

- Community Proposed Alternatives
- Community Combined Route A
- Northern Route - 9.5 miles\*
- Southern Route - 7.7 miles\*
- Combined Route B - 8.9 miles\*
- Study Area
- Dismissed Material Sites
- Potential Material Source Areas\*\*
- Water Crossings

\* Proposed Routes are centered within ~1000 ft corridor.  
 \*\* Material sources would be developed within identified areas (See EA Section 3.1 Table 1).



- Notes**
- Coordinate System: NAD 1983 2011 StatePlane Alaska 8 FIPS 5008 Feet
  - Orthomagery: Combination ©Kodiak Mapping Inc., 2011; ©AeroMetric Inc., 2013; Digital Globe 2016
  - Ethnohistoric named locations derived from NLURA Cultural Resource Study (January 2016), referenced from published sources (Burch 1994, 1998, 2006).



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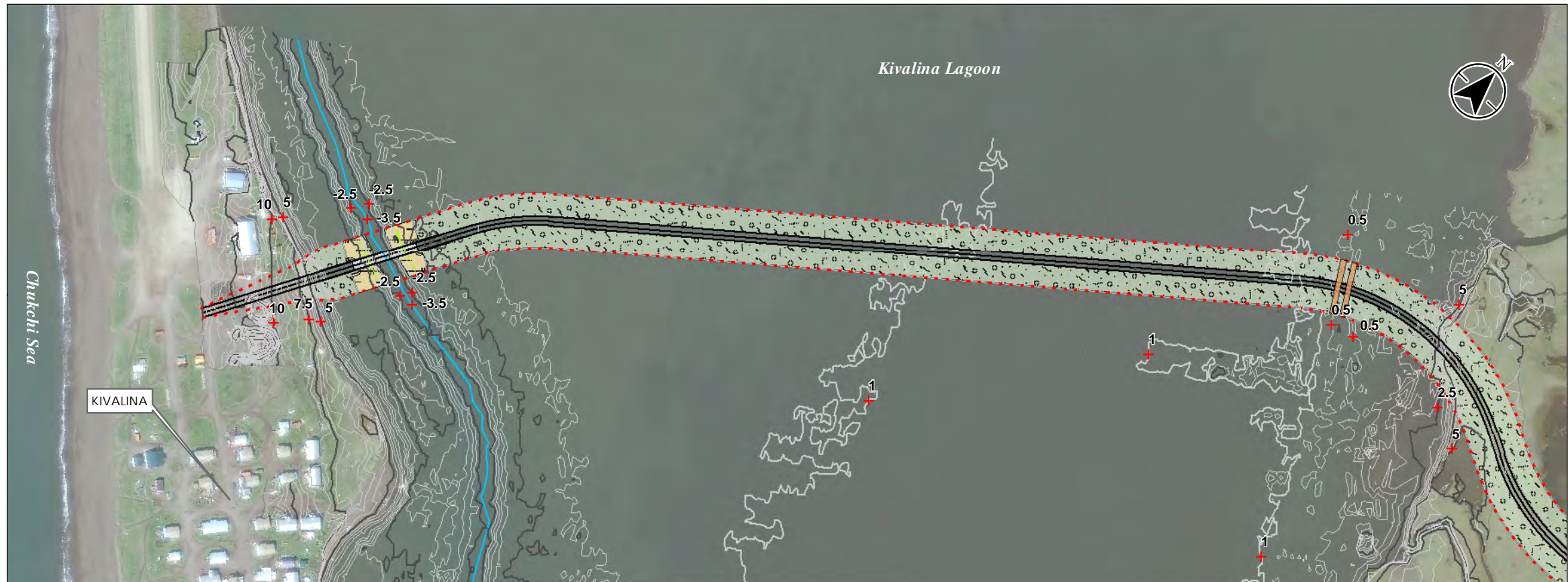
KIVALINA EVACUATION AND SCHOOL SITE  
 ACCESS ROAD  
**Alternatives Considered**

DATE: January, 2018

FIGURE 2


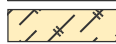



U:\204765102\GIS\mxd\EA\204765102\EA\_Fig\_2\_Alternatives Considered.mxd Revised: 2018.01.02 By: cpannone

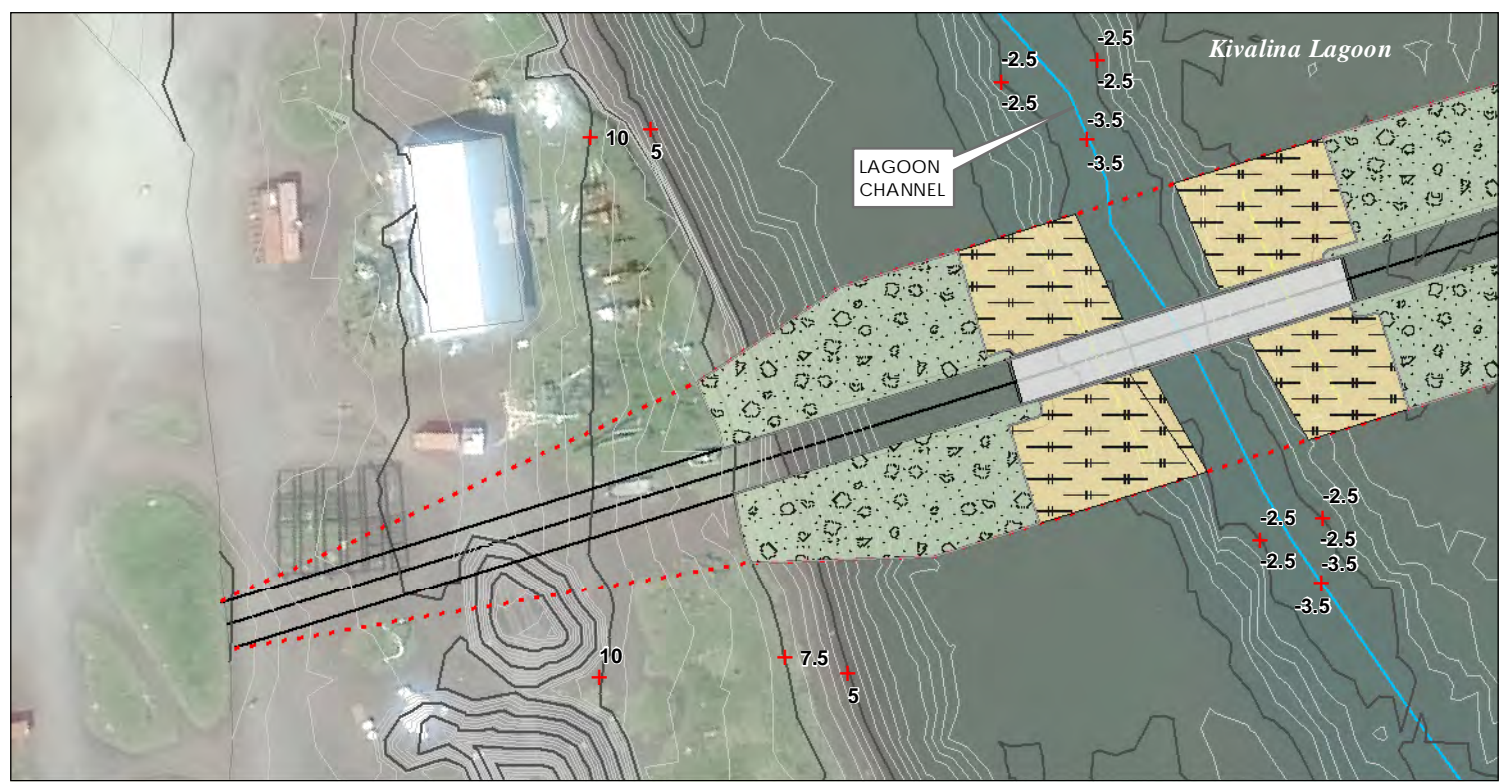
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



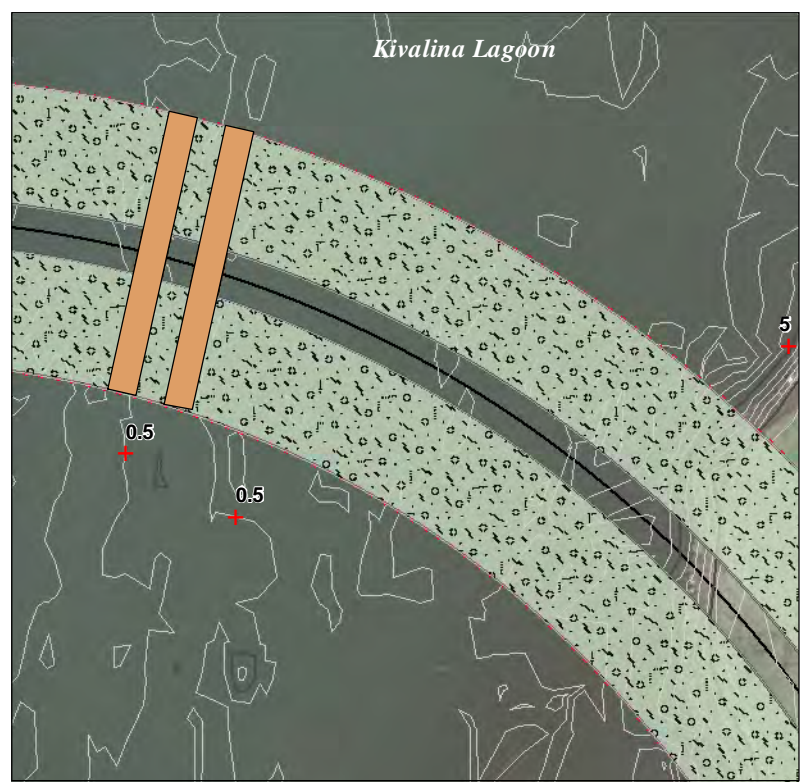
**LAGOON CROSSING OVERVIEW**

**Legend**

-  Bridge
-  Bridge Abutment Rip Rap
-  Causeway Armor
-  Causeway Culvert(s)
-  Elevations

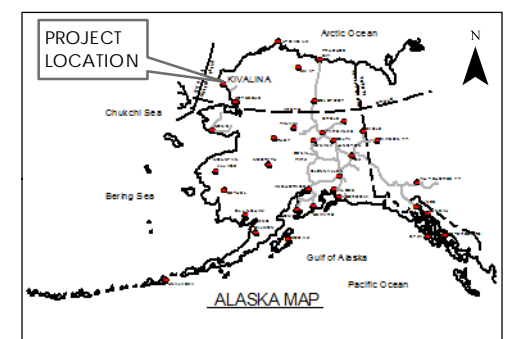


**BRIDGE DETAIL**



**CAUSEWAY CULVERT(S) DETAIL**

- Notes
1. Coordinate System: NAD 1983 2011 StatePlane Alaska 8 FIPS 5008 Feet
  2. Orthomagery: Combination ©Kodiak Mapping Inc., 2011; ©AeroMetric Inc., 2013; Digital Globe 2016



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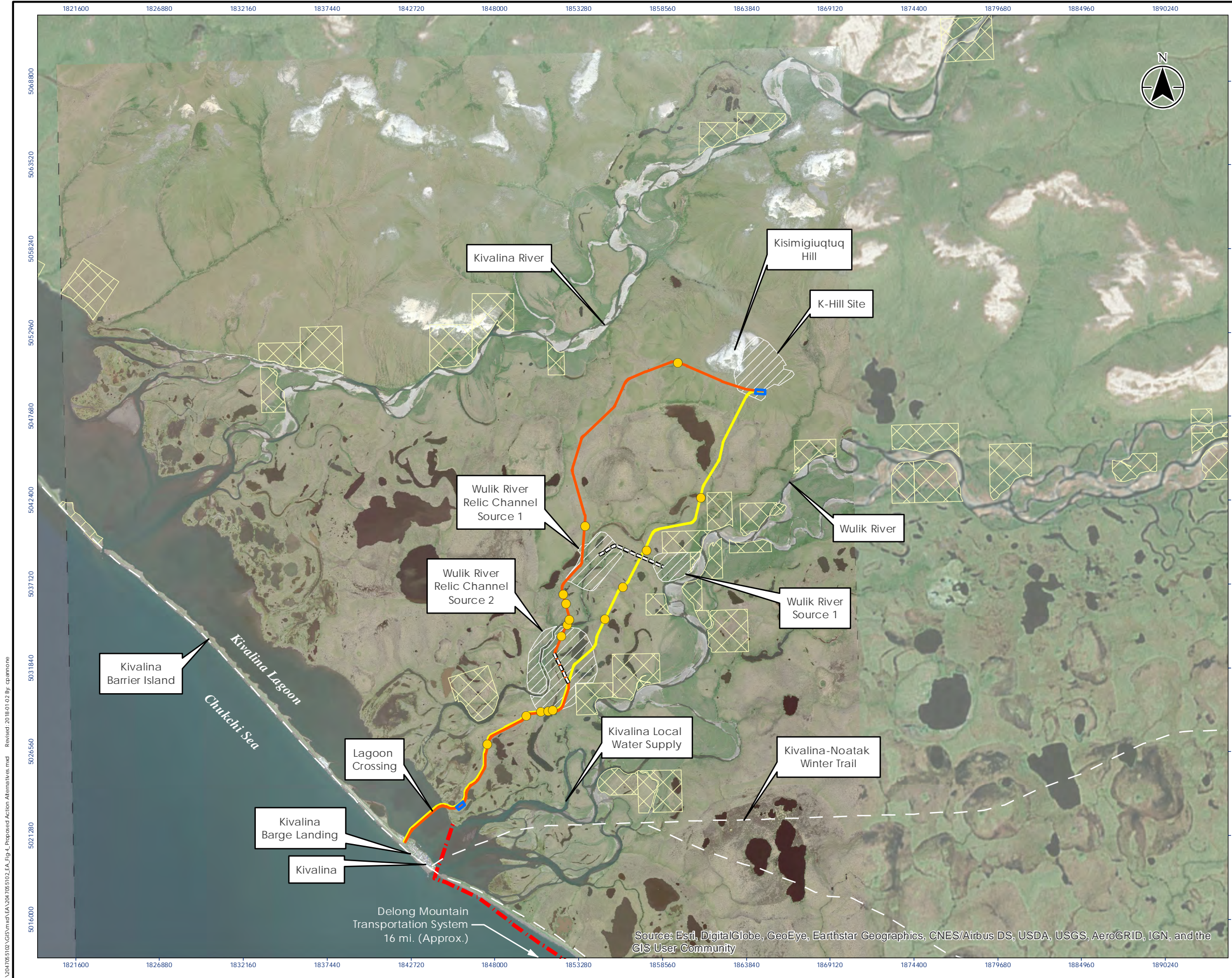
KIVALINA EVACUATION AND SCHOOL SITE  
ACCESS ROAD  
**Lagoon Crossing D Alternative**

DATE: January, 2018

FIGURE 3

U:\2017\5102\GIS\mxd\EA\20170510\2EA\_Fig\_3\_Lagoon Crossing Alternative.mxd Revised: 2018-01-02 by: cplanner

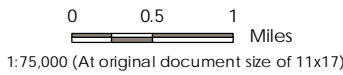
0 50 100 Feet  
1:25,000 (At original document size of 11x17)



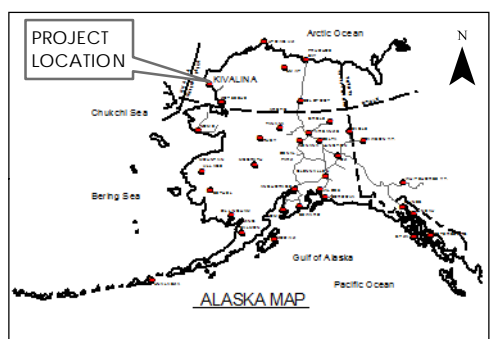
### Legend

- Southern Route - 7.7 miles\*
- Combined Route B - 8.9 miles\*
- Material Source Spur Road
- Winter Access via DMTS Port
- Winter Trail / Easement
- Contractor Staging Areas
- Potential Material Source Areas\*\*
- Native Allotments
- Water Crossings

\* Proposed Routes are centered within ~1000 ft corridor.  
 \*\* Material sources would be developed within identified areas (See EA Section 3.1 Table 1).



- Notes
- Coordinate System: NAD 1983 2011 StatePlane Alaska 8 FIPS 5008 Feet
  - Orthomagery: Combination ©Kodiak Mapping Inc., 2011; ©AeroMetric Inc., 2013; Digital Globe 2016



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KIVALINA EVACUATION AND SCHOOL SITE ACCESS ROAD  
**Proposed Action Alternatives**

DATE: January, 2018      FIGURE 4

U:\2017\5102\GIS\mxd\EA\201705\5102\_ZEA\_Fig\_4\_Proposed Action Alternatives.mxd    Revised: 2018-01-02 By: spannone

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

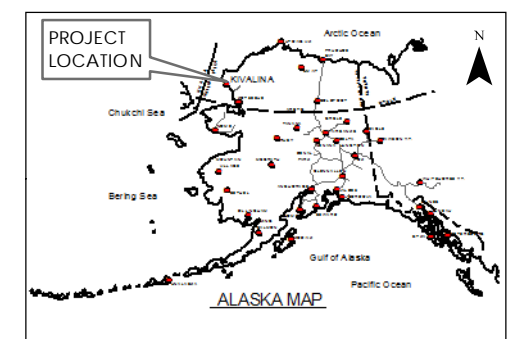


Legend  
 Study Area



0 200 400 Feet  
 1:3,800 (At original document size of 11x17)

- Notes
1. Coordinate System: NAD 1983 2011 StatePlane Alaska 8 FIPS 5008 Feet
  2. Orthomagery: Combination ©Kodiak Mapping Inc., 2011; ©AeroMetric Inc., 2013; Digital Globe 2016



Graphics developed by Stantec Consulting Services, Inc.

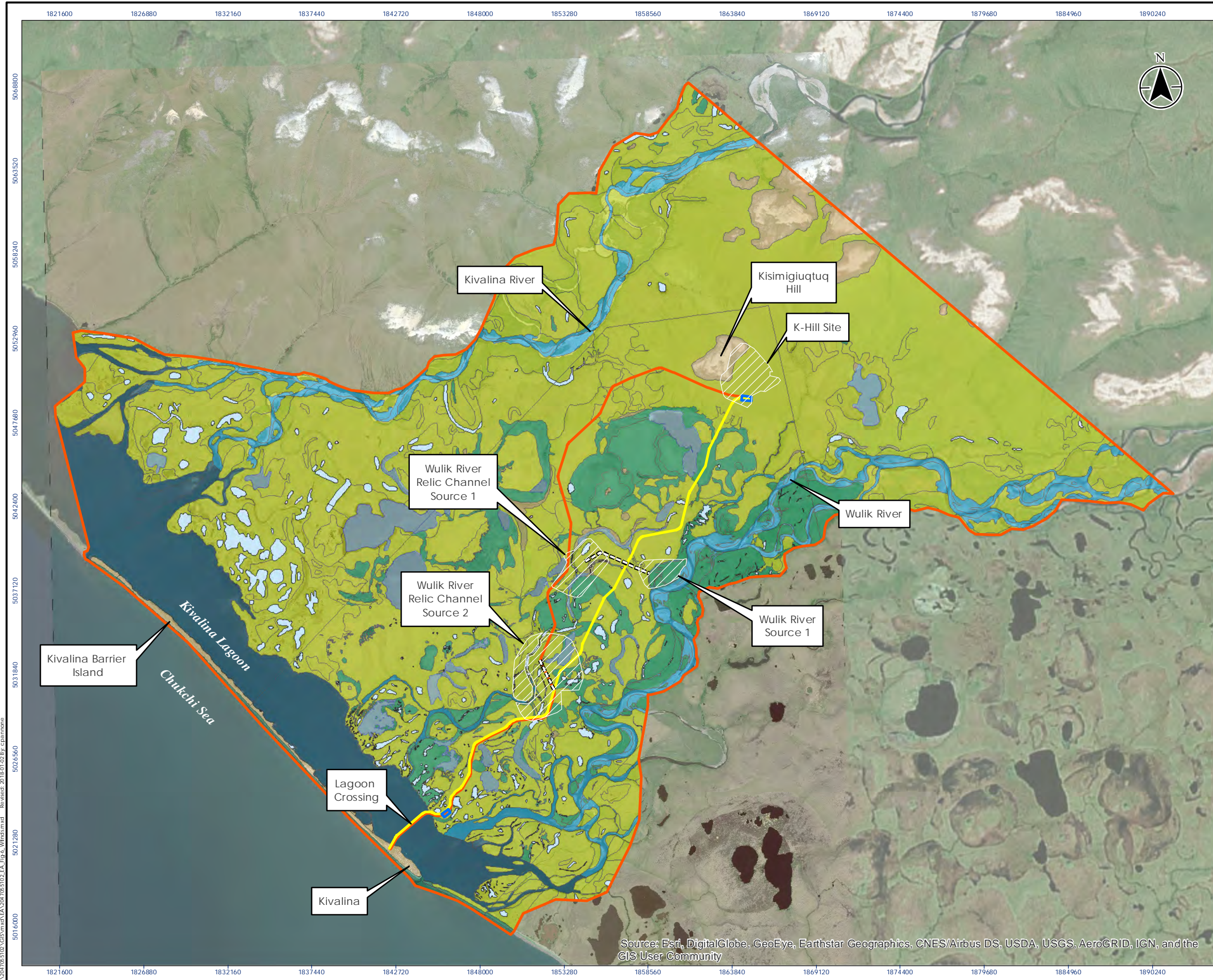
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KIVALINA EVACUATION AND SCHOOL SITE  
 ACCESS ROAD  
**Kivalina Detail**

DATE: January, 2018      FIGURE 5

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, US  
 GIS User Community

U:\2014\705102\GIS\mxd\EA\20170510\2EA\_Fig\_5\_Kivalina\_Detail.mxd    Revised: 2018.01.02 By: cpanmore



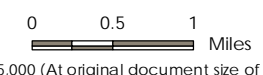
### Legend

- Southern Route - 7.7 miles\*
- Combined Route B - 8.9 miles\*
- Material Source Spur Road
- Contractor Staging Area
- Study Area
- Potential Material Source Areas\*\*

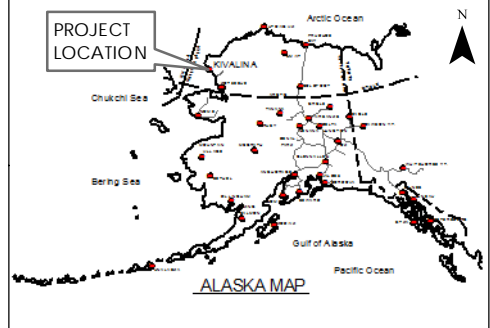
### Wetland Type

- Estuarine
- Lacustrine
- Marine
- Palustrine Flooded
- Palustrine Saturated & Seasonally Flooded
- Pond
- Riverine
- Upland

\* Proposed Routes are centered within ~1000 ft corridor.  
 \*\* Material sources would be developed within identified areas (See Section 3.1 Table 1).



- Notes
- Coordinate System: NAD 1983 2011 StatePlane Alaska 8 FIPS 5008 Feet
  - Orthoimagery: Combination ©Kodiak Mapping Inc., 2011; ©AeroMetric Inc., 2013; Digital Globe 2016



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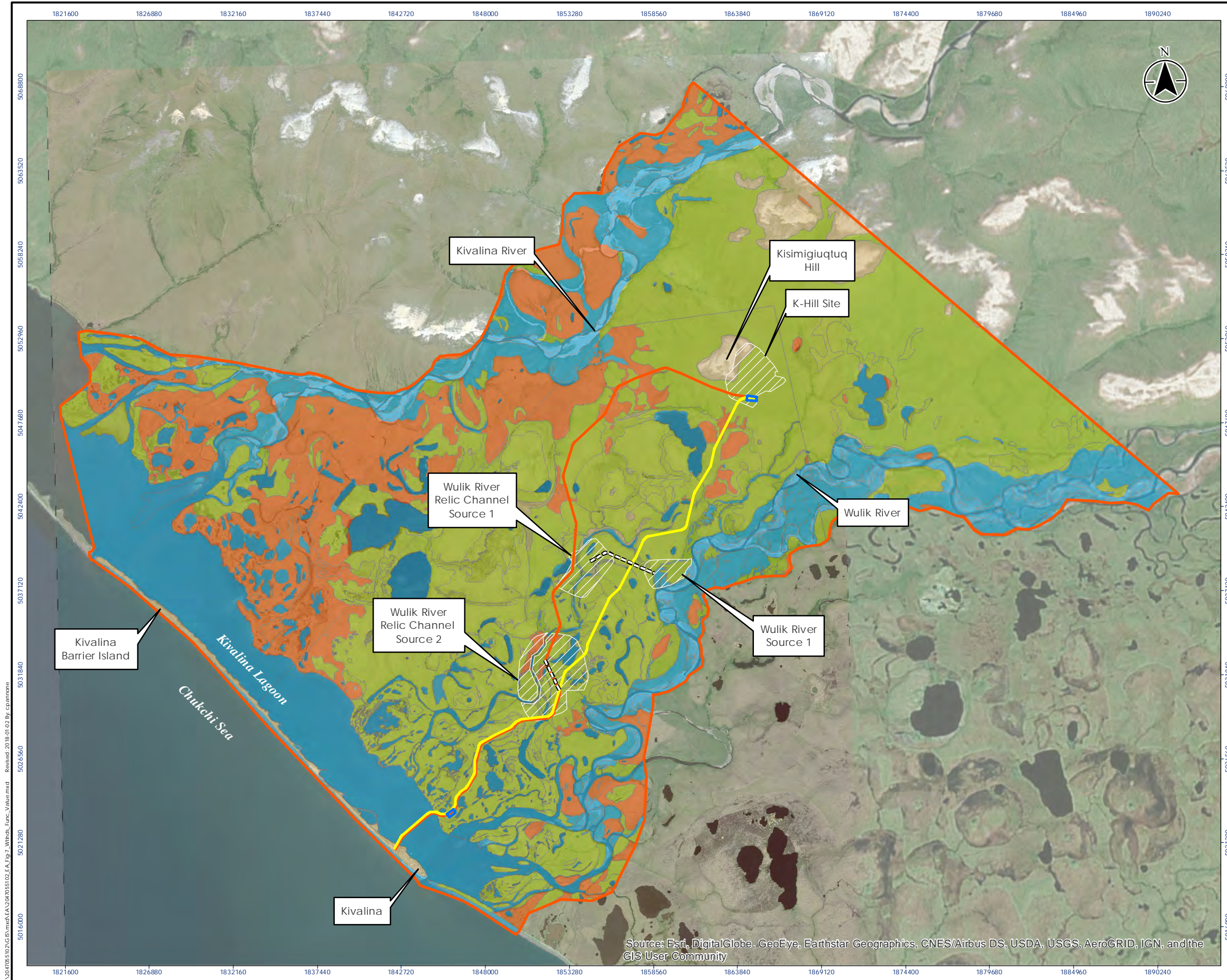
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KIVALINA EVACUATION AND SCHOOL SITE  
 ACCESS ROAD  
**Wetlands**

DATE: January, 2018      FIGURE 6

U:\2017\05\102\GIS\mxd\EA\201705102\EA\_Fig\_6\_Wetlands.mxd    Revised: 2018.01.02 By: cpammone

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



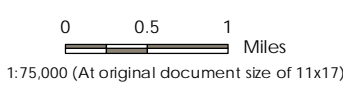
**Legend**

- Southern Route - 7.7 miles\*
- Combined Route B - 8.9 miles\*
- Material Source Spur Road
- Contractor Staging Areas
- Study Area
- Potential Material Source Areas\*\*

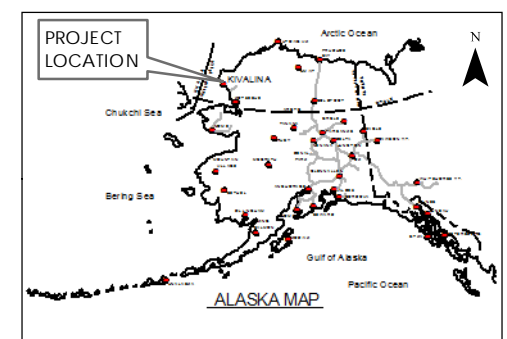
**Wetland Function**

- Upland
- II
- I
- I+

\* Proposed Routes are centered within ~1000 ft corridor.  
 \*\* Material sources would be developed within identified areas (See EA Section 3.1 Table 1).



- Notes**
1. Coordinate System: NAD 1983 2011 StatePlane Alaska 8 FIPS 5008 Feet
  2. Orthomagery: Combination ©Kodiak Mapping Inc., 2011; ©AeroMetric Inc., 2013; Digital Globe 2016



Graphics developed by Stantec Consulting Services, Inc.

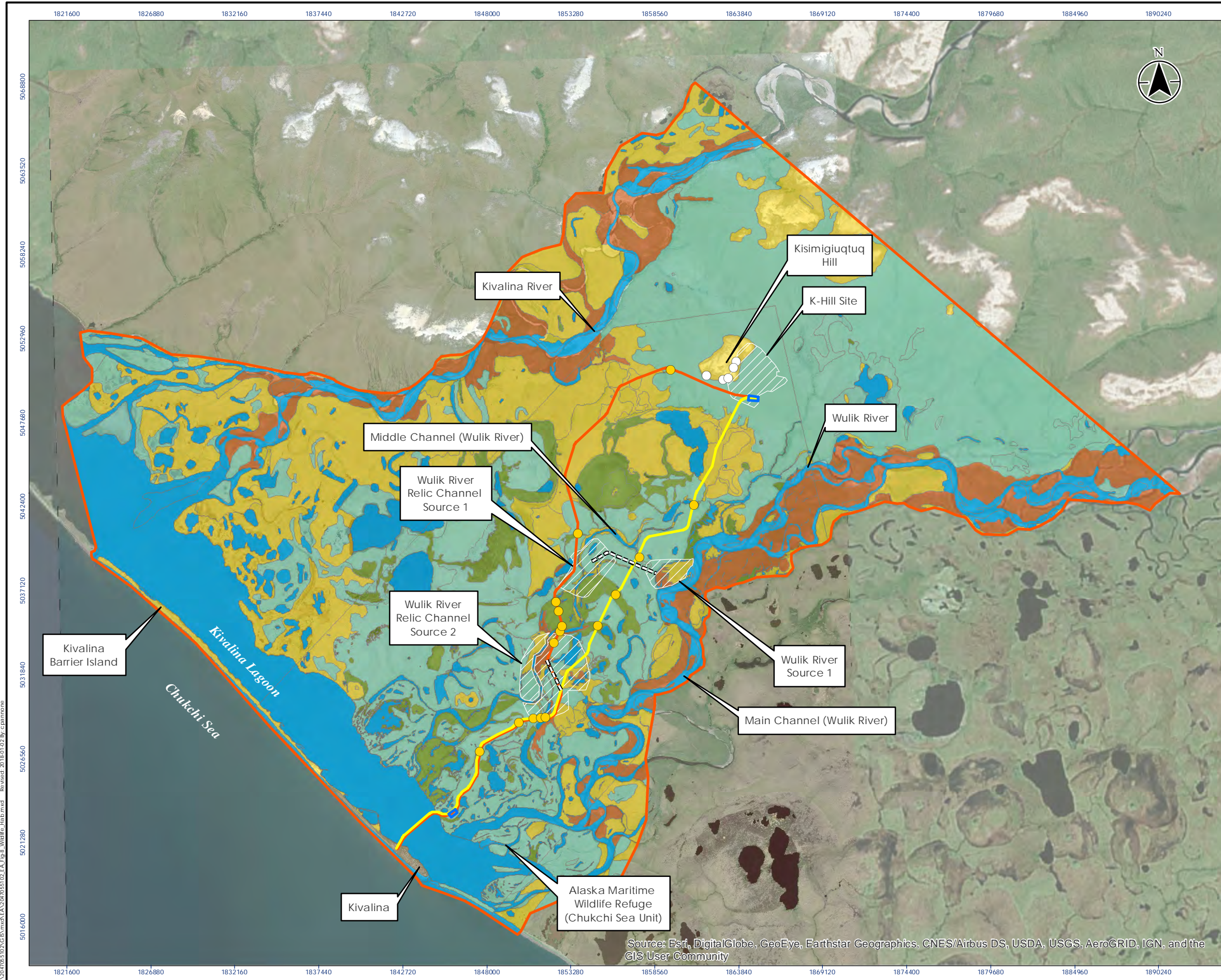
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KIVALINA EVACUATION AND SCHOOL SITE  
 ACCESS ROAD  
**Wetlands Functions**

DATE: January, 2018      **FIGURE 7**

U:\2014\05\20\2AG\5\mxd\EA\3\04\05\0102\EA\Fig\_7\_Withos\_Func\_Value.mxd      Revised: 2018-01-02 By: cpamnonne

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



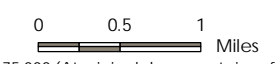
**Legend**

- Southern Route - 7.7 miles\*
- Combined Route B - 8.9 miles\*
- Material Source Spur Road
- Contractor Staging Areas
- Study Area
- Potential Material Source Areas\*\*
- Excavation (Possible Bear Den)
- Water Crossings

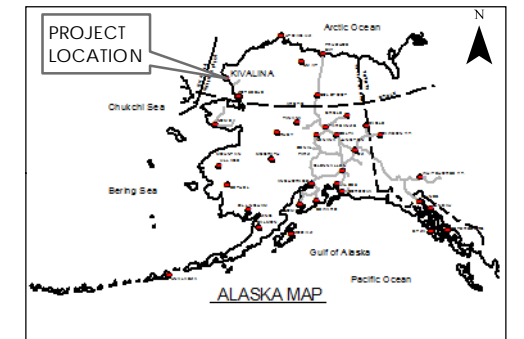
**Viereck**

- Developed
- II.C.1: Closed Low Scrub\*\*\*
- II.D.2: Willow Dwarf Shrub
- III.A.2: Mesic Graminoid Herbaceous
- III.A.3: Mesic Graminoid Herbaceous
- W: Water

\* Proposed Routes are centered within ~1000 ft corridor.  
 \*\* Material sources would be developed within identified areas.  
 \*\*\* Closed Low Scrub is considered important bird habitat.



- Notes
1. Coordinate System: NAD 1983 2011 StatePlane Alaska 8 FIPS 5008 Feet
  2. Orthomagery: Combination ©Kodiak Mapping Inc., 2011; ©AeroMetric Inc., 2013; Digital Globe 2016



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KIVALINA EVACUATION AND SCHOOL SITE  
 ACCESS ROAD  
**Wildlife Habitat**

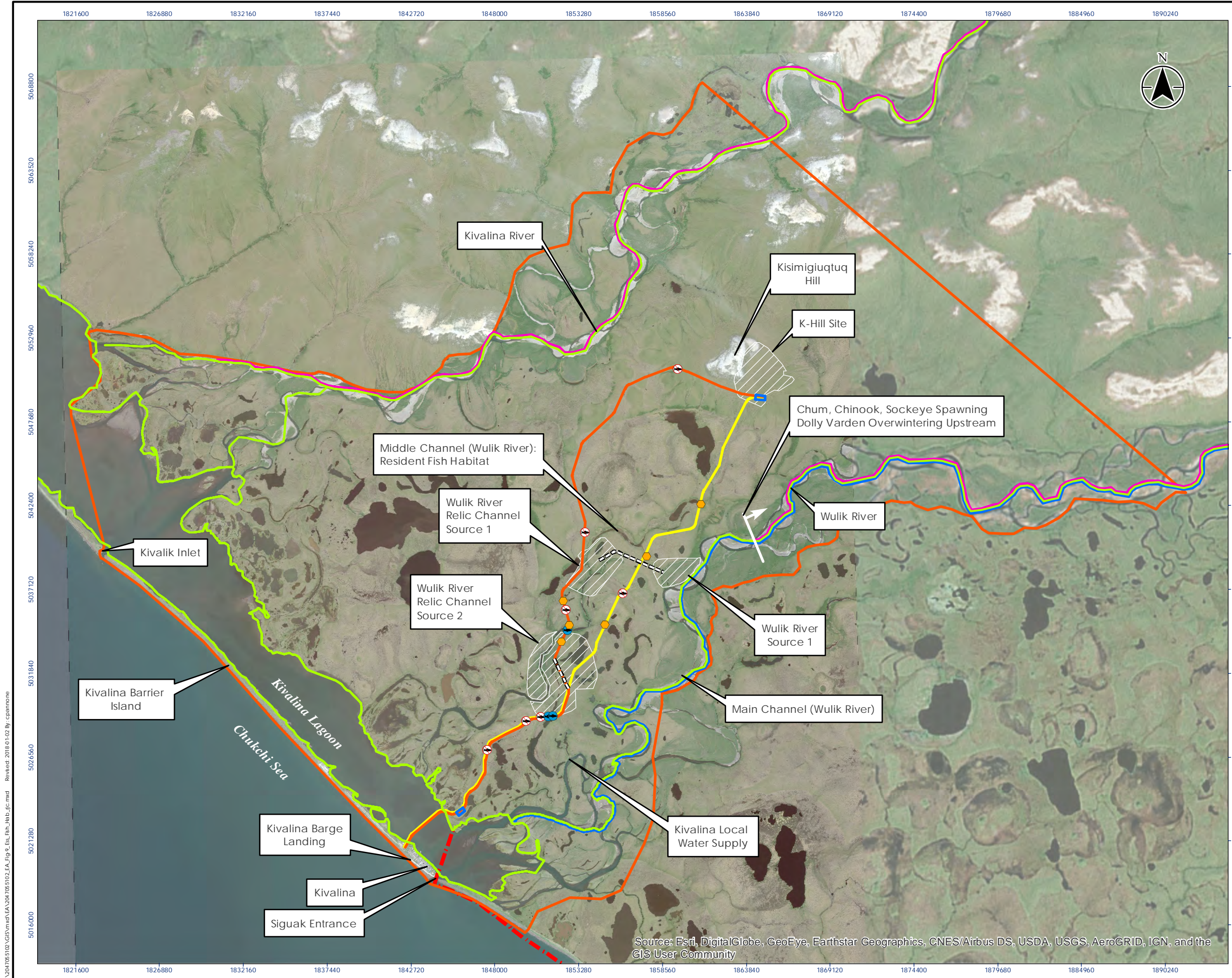
DATE: January, 2018

FIGURE 8

U:\2014\05\02\G\5\mxd\EA\20140502\EA\Fig 8\_Wildlife\_Habit.mxd Revised: 2018-01-02 By: c.pammone

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

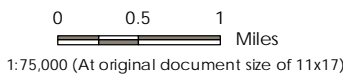




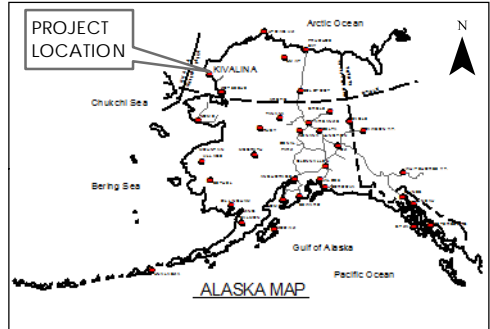
### Legend

- Southern Route - 7.7 miles\*\*
- Combined Route B - 8.9 miles\*\*
- Material Source Spur Road
- Contractor Staging Areas
- Study Area
- Potential Material Source Areas\*\*
- ~ Pacific Salmon Present\*\*\*
- ~ Pink Salmon Spawning
- ~ Chum Salmon Spawning
- Fish Passage Crossing
- ⊘ Non-Fish Passage Crossing
- Enhanced Crossing

\* Material sources would be developed within identified areas.  
 \*\* Proposed Routes are centered within ~1000 ft corridor  
 \*\*\* Arctic cod and saffron cod are present in the Kivalina Lagoon year round.



- Notes
1. Coordinate System: NAD 1983 2011 StatePlane Alaska 8 FIPS 5008 Feet
  2. Orthimagery: Combination ©Kodiak Mapping Inc., 2011; ©AeroMetric Inc., 2013; Digital Globe 2016
  3. Essential Fish Habitat Data shown was produced using 2017 Regulatory Mapping Data from the Anadromous Waters Catalog (AWC), acquired from ADF&G website.



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KIVALINA EVACUATION AND SCHOOL SITE  
 ACCESS ROAD  
**Fish Habitat**

DATE: January, 2018      **FIGURE 9**

U:\204765102\GIS\mxd\EA\204765102\EA\_Fig\_9\_Ext\_Fish\_Habit\_jfc.mxd      Revised: 2018 01 02 by: cpammone

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community