AMENDMENT TO BRADLEY LAKE HYDROELECTRIC PROJECT (FERC No. 8221),

BRADLEY LAKE EXPANSION PROJECT

Wetland Delineation Report

APPENDIX C

FIELD DATA: USACE DATA SHEETS, PHOTO LOG, AND ALL OBSERVED PLANT SPECIES

APPENDIX C-1 USACE DATA SHEETS

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon | Borough/City: Homer | Sampling Date: 7/29/2024
Applicant/Owner: AEA | Sampling Point: 1
Investigator(s): JRG, EGA | Landform (hillside, terrace, hummocks, etc.): hillside
Local relief (concave, convex, none): concave | Slope (%): 1-3
Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) | Lat: 59.745633 | Long: -150.834833 | Datum: WGS84
Soil Map Unit Name: N/A | NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Salix pulchra*	25	Yes	FACW
2. *Empetrum nigrum*	30	Yes	FAC
3. *Rubus arcticus*	5	No	FAC
4. *Alnus viridis*	3	No	FAC
5.			
6.			
	63 =Total Cover		
50% of total cover: 32	20% of total cover: 13		
Herb Stratum			
1. *Chamaenerion angustifolium*	40	Yes	FACU
2. *Eurybia sibirica*	10	No	FAC
3. *Carex pluriflora*	5	No	OBL
4. *Veratrum viride*	2	No	FAC
5. *Calamagrostis canadensis*	35	Yes	FAC
6. *Sanguisorba canadensis*	15	No	FACW
7. *Equisetum pratense*	5	No	FACW
8. *Trientalis europaea*	2	No	FACU
9. *Petasites frigidus*	1	No	FACW
10. *Eriophorum angustifolium*	10	No	OBL
	130 =Total Cover		
50% of total cover: 65	20% of total cover: 26		

Plot Size (radius, or length x width) 1/10 acre | % Bare Ground 0
% Cover of Wetland Bryophytes (Where applicable) 0 | Total Cover of Bryophytes ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	51	x 2 =	102
FAC species	85	x 3 =	255
FACU species	42	x 4 =	168
UPL species	0	x 5 =	0
Column Totals:	193 (A)		540 (B)

Prevalence Index = B/A = 2.80

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

VEGETATION Continued – Use scientific names of plants. Sampling Point: 1

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	63 =Total Cover		
50% of total cover: 32	20% of total cover: 13		
Herb Stratum			
11. *Swertia perennis*	2	No	FACW
12. *Viola palustris*	3	No	FACW
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
	130 =Total Cover		
50% of total cover: 65	20% of total cover: 26		

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in. DBH, regardless of height.

Herb – All herbaceous (non-woody) plants, regardless of size.

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3							Peat	Fibric
3-8	10YR 4/2	100					Mucky Loam/Clay	silt loam
8-11	10YR 4/4	70	2.5Y 6/6	30	C	PL	Mucky Loam/Clay	Distinct redox concentrations
11-16	10YR 5/4	100					Loamy/Clayey	10% cobbles
16-24	2.5YR 4/6	100					Loamy/Clayey	70% cobbles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
11-16" layer has living roots. 0-3" layer has thin organics.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___		
Water Table Present?	Yes X	No ___	Depth (inches): 23		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 5	**Wetland Hydrology Present?**	**Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seep nearby

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 7/29/2024

Applicant/Owner: AEA Sampling Point: 2

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): concave Slope (%): 5-8

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.745198 Long: -150.839395 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum			
1. *Vaccinium uliginosum*	20	Yes	FAC
2. *Alnus incana*	10	Yes	FAC
3. *Sorbus scopulina*	5	No	FACU
4. *Rubus pedatus*	3	No	FAC
5. *Oplopanax horridus*	10	Yes	FACU
6.			
	48	=Total Cover	
50% of total cover:	24	20% of total cover:	10

Herb Stratum			
1. *Calamagrostis canadensis*	5	No	FAC
2. *Athyrium cyclosorum*	15	No	FAC
3. *Veratrum viride*	25	Yes	FAC
4. *Sanguisorba canadensis*	10	No	FACW
5. *Rubus arcticus*	30	Yes	FAC
6.			
7.			
8.			
9.			
10.			
	85	=Total Cover	
50% of total cover:	43	20% of total cover:	17

Plot Size (radius, or length x width) 1/10 acre % Bare Ground 0

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	108	x 3 =	324
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	133 (A)		404 (B)

Prevalence Index = B/A = 3.04

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4							Peat	Fibric
4-8	10YR 2/2	100					Loamy/Clayey	
8-18	10YR 3/3	100					Loamy/Clayey	10% organic inclusions, 70% cobbles
18-24	10YR 2/2	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Depleted Below Dark Surface (A11)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if observed):
Type: ____
Depth (inches): ____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-Stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
X Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? Yes ____ No X Depth (inches): ____
(includes capillary fringe)

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 7/29/2024

Applicant/Owner: AEA Sampling Point: 3

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): non Slope (%): 1-3

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.744935 Long: -150.843870 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: R5UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum			
1. *Alnus incana*	60	Yes	FAC
2. *Salix pulchra*	20	Yes	FACW
3. *Vaccinium uliginosum*	5	No	FAC
4. *Rubus pedatus*	5	No	FAC
5. *Oplopanax horridus*	10	No	FACU
6.			
	100 =Total Cover		
50% of total cover: 50	20% of total cover: 20		

Herb Stratum			
1. *Solidago simplex*	5	No	UPL
2. *Trientalis europaea*	15	Yes	FACU
3. *Veratrum viride*	10	Yes	FAC
4. *Calamagrostis canadensis*	5	No	FAC
5. *Viola palustris*	10	Yes	FACW
6. *Sanguisorba canadensis*	5	No	FACW
7.			
8.			
9.			
10.			
	50 =Total Cover		
50% of total cover: 25	20% of total cover: 10		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 0

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	85	x 3 =	255
FACU species	25	x 4 =	100
UPL species	5	x 5 =	25
Column Totals:	150 (A)		450 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							Peat	fibric
2-5	10YR 3/4	100					Mucky Sand	
5-8	10YR 3/2	100					Mucky Sand	
8-20	10YR 3/4	60					Sandy	40% cobbles, rock restriction
20-24	2.5Y 4/4	40					Sandy	60% cobbles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Bright upland soils

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Well drained

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 7/30/2024

Applicant/Owner: AEA Sampling Point: 4

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): valley bottom

Local relief (concave, convex, none): concave Slope (%): 0-1

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.746955 Long: -150.831944 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Empetrum nigrum*	70	Yes	FAC
2. *Vaccinium uliginosum*	10	No	FAC
3. *Rubus pedatus*	15	No	FAC
4. *Sanguisorba canadensis*	2	No	FACW
5. *Vaccinium vitis-idaea*	10	No	FAC
6.			
	107 =Total Cover		
50% of total cover: 54	20% of total cover: 22		

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Chamaenerion angustifolium*	5	Yes	FACU
2. *Eurybia sibirica*	2	No	FAC
3. *Veratrum viride*	2	No	FAC
4. *Trientalis europaea*	2	No	FACU
5. *Viola palustris*	5	Yes	FACW
6. *Calamagrostis canadensis*	10	Yes	FAC
7. *Artemisia tilesii*	5	Yes	FACU
8.			
9.			
10.			
	31 =Total Cover		
50% of total cover: 16	20% of total cover: 7		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 0

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	7	x 2 =	14
FAC species	119	x 3 =	357
FACU species	12	x 4 =	48
UPL species	0	x 5 =	0
Column Totals:	138 (A)		419 (B)

Prevalence Index = B/A = 3.04

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
lichen 5%

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3							Peat	fibric
3-12	10YR 3/3	60	10YR 2/2	40	D	PL/M	Loamy/Clayey	
12-24	10YR 3/4	90					Loamy/Clayey	10% gravels

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 7/30/2024

Applicant/Owner: AEA Sampling Point: 5

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): swale

Local relief (concave, convex, none): none Slope (%): 0-1

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.746523 Long: -150.831976 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation N , Soil Y , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Problematic soils, gravely soils with low organic-carbon content with persistent soil satuation during growing season. Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Salix pulchra*	35	Yes	FACW
2. *Rubus pedatus*	20	Yes	FAC
3. *Salix barclayi*	25	Yes	FAC
4. *Vaccinium uliginosum*	15	No	FAC
5.			
6.			
	95 =Total Cover		
50% of total cover: 48	20% of total cover: 19		
Herb Stratum			
1. *Platanthera aquilonis*	10	No	FACW
2. *Sanguisorba canadensis*	20	Yes	FACW
3. *Eurybia sibirica*	5	No	FAC
4. *Viola palustris*	15	No	FACW
5. *Calamagrostis canadensis*	25	Yes	FAC
6. *Swertia perennis*	3	No	FACW
7.			
8.			
9.			
10.			
	78 =Total Cover		
50% of total cover: 39	20% of total cover: 16		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 0

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	83	x 2 =	166
FAC species	90	x 3 =	270
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	173 (A)		436 (B)

Prevalence Index = B/A = 2.52

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4							Peat	Fibric
4-24	7.5YR 3/2	100					Loamy/Clayey	90% gravels, living roots

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- X Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Problematic gravely soils, soils with low organic-carbon content. AA is negative

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ___	Depth (inches): ___		
Water Table Present?	Yes X	No ___	Depth (inches): 9		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 6	**Wetland Hydrology Present?**	**Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Low spot near ponds, AA is negative.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon | Borough/City: Homer | Sampling Date: 7/30/2024
Applicant/Owner: AEA | Sampling Point: 6
Investigator(s): JRG, EGA | Landform (hillside, terrace, hummocks, etc.): hillside
Local relief (concave, convex, none): concave | Slope (%): 3-5
Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) | Lat: 59.745760 | Long: -150.833961 | Datum: WGS84
Soil Map Unit Name: N/A | NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Rubus spectabilis*	40	Yes	FACU
2. *Alnus incana*	10	No	FAC
3. *Vaccinium uliginosum*	10	No	FAC
4. *Sorbus scopulina*	5	No	FACU
5. *Rubus pedatus*	10	No	FAC
6.			
	75 =Total Cover		
50% of total cover: 38	20% of total cover: 15		

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Veratrum viride*	10	Yes	FAC
2. *Chamaenerion angustifolium*	5	No	FACU
3. *Athyrium cyclosorum*	5	No	FAC
4. *Calamagrostis canadensis*	20	Yes	FAC
5. *Trientalis europaea*	5	No	FACU
6. *Viola palustris*	10	Yes	FACW
7.			
8.			
9.			
10.			
	55 =Total Cover		
50% of total cover: 28	20% of total cover: 11		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground 0
% Cover of Wetland Bryophytes ____ | Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	65	x 3 =	195
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	130 (A)		435 (B)

Prevalence Index = B/A = 3.35

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3							Peat	Fibric
3-12	7.5YR 2.5/3	60	2.5Y 4/3	40	D	M	Loamy/Clayey	
12-24	10YR 3/3	100					Loamy/Clayey	10% roots to 24"

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 7/30/2024

Applicant/Owner: AEA Sampling Point: 7

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): swale

Local relief (concave, convex, none): none Slope (%): 0-1

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.746484 Long: -150.808549 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Salix pulchra*	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
	5 =Total Cover		
50% of total cover: 3	20% of total cover: 1		
Herb Stratum			
1. *Geum macrophyllum*	10	No	FAC
2. *Carex aquatilis*	20	No	OBL
3. *Eriophorum vaginatum*	35	Yes	FACW
4. *Trichophorum caespitosum*	15	No	OBL
5. *Sanguisorba canadensis*	25	Yes	FACW
6. *Swertia perennis*	5	No	FACW
7.			
8.			
9.			
10.			
	110 =Total Cover		
50% of total cover: 55	20% of total cover: 22		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 0

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	70	x 2 =	140
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	115 (A)		205 (B)

Prevalence Index = B/A = 1.78

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6							Peat	Fibric
6-13	10YR 4/2	100					Mucky Peat	Hemic
13-18	10YR 4/2	100					Muck	Sapric
18-24	10YR 4/4	100					Mucky Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:
Thick organic layer

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- X Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___		
Water Table Present?	Yes X	No ___	Depth (inches): 23		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 4	**Wetland Hydrology Present?**	**Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Poorly drained

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 7/30/24

Applicant/Owner: AEA Sampling Point: 8

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): swale

Local relief (concave, convex, none): concave Slope (%): 0-1

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.747316 Long: -150.828547 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Vaccinium uliginosum*	5	No	FAC
2. *Empetrum nigrum*	20	Yes	FAC
3. *Vaccinium vitis-idaea*	15	Yes	FAC
4. *Rubus pedatus*	2	No	FAC
5. *Alnus incana*	5	No	FAC
6. *Sorbus scopulina*	5	No	FACU
	52 =Total Cover		
50% of total cover:	26 20% of total cover:	11	
Herb Stratum			
1. *Eriophorum vaginatum*	30	Yes	FACW
2. *Eurybia sibirica*	20	No	FAC
3. *Carex aquatilis*	40	Yes	OBL
4. *Geum macrophyllum*	20	No	FAC
5. *Artemisia biennis*	5	No	FAC
6. *Veratrum viride*	5	No	FAC
7. *Calamagrostis canadensis*	30	Yes	FAC
8. *Trientalis europaea*	5	No	FACU
9.			
10.			
	155 =Total Cover		
50% of total cover:	78 20% of total cover:	31	

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 0

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	30	x 2 =	60
FAC species	127	x 3 =	381
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	207 (A)		521 (B)

Prevalence Index = B/A = 2.52

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

VEGETATION Continued – Use scientific names of plants. Sampling Point: 8

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	52 =Total Cover		
50% of total cover: 26	20% of total cover: 11		
Herb Stratum			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
	155 =Total Cover		
50% of total cover: 78	20% of total cover: 31		

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in. DBH, regardless of height.

Herb – All herbaceous (non-woody) plants, regardless of size.

Remarks:

SOIL

Sampling Point: 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8							Peat	Fibric
8-9	10YR 4/2	100					Mucky Loam/Clay	
9-10	7.5YR 3/4	100					Loamy/Clayey	
10-24	10YR 3/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Saturated soils at 5", AA is negative

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- X Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___			
Water Table Present?	Yes ___	No X	Depth (inches): ___			
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 5	**Wetland Hydrology Present?**	**Yes** X	**No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 7/0/2024

Applicant/Owner: AEA Sampling Point: 9

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): hilltop

Local relief (concave, convex, none): concave Slope (%): 0-1

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.723087 Long: -150.69424 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Spiraea stevenii*	20	Yes	FACU
2. *Alnus viridis*	45	Yes	FAC
3.			
4.			
5.			
6.			
	65 =Total Cover		
50% of total cover: 33	20% of total cover: 13		
Herb Stratum			
1. *Geum macrophyllum*	10	No	FAC
2. *Calamagrostis canadensis*	50	Yes	FAC
3. *Angelica lucida*	10	No	FACU
4. *Artemisia biennis*	3	No	FAC
5. *Trientalis europaea*	5	No	FACU
6.			
7.			
8.			
9.			
10.			
	78 =Total Cover		
50% of total cover: 39	20% of total cover: 16		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 10

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	108	x 3 =	324
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	143 (A)		464 (B)

Prevalence Index = B/A = 3.24

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5							Peat	Fibric
5-16	10YR 4/6	100					Sandy	
16-24	10YR 4/1	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Sandy, bright soils

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Well drained

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 7/31/2024

Applicant/Owner: AEA Sampling Point: 10

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): Floodplain

Local relief (concave, convex, none): none Slope (%): 0-1

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.724104 Long: -150.694433 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____ , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Dry season and APT shows normal conditions. Located in stream floodplain

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Salix pulchra*	15	Yes	FACW
2. *Alnus viridis*	12	Yes	FAC
3. *Salix alaxensis*	5	No	FAC
4. *Salix glauca*	10	Yes	FAC
5.			
6.			
	42 =Total Cover		
50% of total cover:	21	20% of total cover:	9
Herb Stratum			
1. *Deschampsia caespitosa*	30	Yes	FAC
2. *Equisetum arvense*	45	Yes	FAC
3. *Equisetum hyemale*	20	Yes	FACW
4. *Parnassia palustris*	3	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	98 =Total Cover		
50% of total cover:	49	20% of total cover:	20

Plot Size (radius, or length x width) 1/10th acre % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	38	x 2 =	76
FAC species	102	x 3 =	306
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		382 (B)

Prevalence Index = B/A = 2.73

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1							Peat	Fibric
1-8	10YR 3/1	100					Sandy	Coarse
8-18	7.5YR 3/1	100					Mucky Loam/Clay	Living roots
18-24	2.5Y 3/1	70					Mucky Loam/Clay	30% buried organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Sandy soils

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___		
Water Table Present?	Yes X	No ___	Depth (inches): 23		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 16	**Wetland Hydrology Present?**	**Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon | Borough/City: Homer | Sampling Date: 7/31/2024
Applicant/Owner: AEA | Sampling Point: 11
Investigator(s): JRG, EGA | Landform (hillside, terrace, hummocks, etc.): terrace
Local relief (concave, convex, none): none | Slope (%): 0
Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) | Lat: 59.722654 | Long: -150.689276 | Datum: WGS84
Soil Map Unit Name: N/A | NWI classification: R3USC
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ___
Hydric Soil Present? Yes X No ___
Wetland Hydrology Present? Yes X No ___

Is the Sampled Area within a Wetland? **Yes** X **No** ___

Remarks:
Dry season and APT shows normal conditions. Sample point taken is vegetated braided channel below OHW. Stream

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix alaxensis*	40	Yes	FAC
2.			
3.			
4.			
	40	=Total Cover	
50% of total cover: 20		20% of total cover: 8	
Sapling/Shrub Stratum			
1. *Salix alaxensis*	10	Yes	FAC
2. *Alnus viridis*	2	No	FAC
3. *Rubus pedatus*	2	No	FAC
4.			
5.			
6.			
	14	=Total Cover	
50% of total cover: 7		20% of total cover: 3	
Herb Stratum			
1. *Calamagrostis canadensis*	10	Yes	FAC
2. *Epilobium palustre*	5	Yes	OBL
3. *Artemisia tilesii*	2	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	17	=Total Cover	
50% of total cover: 9		20% of total cover: 4	

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground 0
% Cover of Wetland Bryophytes ___ | Total Cover of Bryophytes ___
(Where applicable)

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	0	x 2 =	0
FAC species	64	x 3 =	192
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	71 (A)		205 (B)

Prevalence Index = B/A = 2.89

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks:

SOIL

Sampling Point: 11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					Sandy	
10-14	10YR 2/1	40					Sandy	coarse, 60% gravel
14-24	10YR 2/1	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Depleted Below Dark Surface (A11)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)

___ Alaska Color Change (TA4)[4]
X Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if observed):
Type: ___
Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:
Sand is dark in color. Problematic soils with primary hydrology of drift deposits within a concave landscape within a stream floodplain and dark mineral sand that accumulates moisture.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
X Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-Stained Leaves (B9)
X Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
X Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___		
Water Table Present?	Yes ___	No X	Depth (inches): ___		
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___	**Wetland Hydrology Present?**	**Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Evidence of flooding with stripped alders within drainage patterns.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon | Borough/City: Homer | Sampling Date: 7/31/2024
Applicant/Owner: AEA | Sampling Point: 12
Investigator(s): JRG, EGA | Landform (hillside, terrace, hummocks, etc.): hillside
Local relief (concave, convex, none): convex | Slope (%): 2-5
Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) | Lat: 59.721157 | Long: -150.685941 | Datum: WGS84
Soil Map Unit Name: N/A | NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Spiraea stevenii*	30	Yes	FACU
2. *Alnus incana*	15	Yes	FAC
3. *Rubus pedatus*	10	No	FAC
4.			
5.			
6.			
	55 =Total Cover		
50% of total cover: 28	20% of total cover: 11		
Herb Stratum			
1. *Trientalis europaea*	10	No	FACU
2. *Calamagrostis canadensis*	60	Yes	FAC
3. *Gymnocarpium dryopteris*	15	No	FACU
4. *Veratrum viride*	5	No	FAC
5. *Chamaenerion angustifolium*	40	Yes	FACU
6.			
7.			
8.			
9.			
10.			
	130 =Total Cover		
50% of total cover: 65	20% of total cover: 26		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground 10
% Cover of Wetland Bryophytes ____ | Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	90	x 3 =	270
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	185 (A)		650 (B)

Prevalence Index = B/A = 3.51

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: 12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5							Peat	Fibric
5-10	10YR 4/4	100					Loamy/Clayey	10% gravel
10-16	7.5YR 4/4	100					Loamy/Clayey	
16-24	10YR 4/3	60	7.5YR 5/4	40	RM	M	Loamy/Clayey	30% large cobbles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Bright upland soils, 16-24" layer has a second matrix of 7.5YR 5/4

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Well drained

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 7/31/2024

Applicant/Owner: AEA Sampling Point: 13

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): concave Slope (%): 5

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.728769 Long: -150.689411 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: R3USC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows nornal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum			
1. *Rubus pedatus*	2	No	FAC
2. *Vaccinium uliginosum*	20	Yes	FAC
3. *Sambucus racemosa*	5	No	FACU
4. *Alnus incana*	15	Yes	FAC
5.			
6.			
	42 =Total Cover		
50% of total cover: 21	20% of total cover: 9		

Herb Stratum			
1. *Calamagrostis canadensis*	10	No	FAC
2. *Geranium erianthum*	5	No	FACU
3. *Deschampsia caespitosa*	15	No	FAC
4. *Campanula rotundifolia*	10	No	UPL
5. *Maianthemum dilatatum*	70	Yes	FAC
6. *Chamaenerion angustifolium*	15	No	FACU
7.			
8.			
9.			
10.			
	125 =Total Cover		
50% of total cover: 63	20% of total cover: 25		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 0

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	132	x 3 =	396
FACU species	25	x 4 =	100
UPL species	10	x 5 =	50
Column Totals:	167 (A)		546 (B)

Prevalence Index = B/A = 3.27

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: 13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5							Peat	Fibric
5-11	10YR 3/4	100					Loamy/Clayey	
11-24	10YR 3/2	100					Loamy/Clayey	10% gravels

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon | Borough/City: Homer | Sampling Date: 7/31/2024
Applicant/Owner: AEA | Sampling Point: 14
Investigator(s): JRG, EGA | Landform (hillside, terrace, hummocks, etc.): mound
Local relief (concave, convex, none): convex | Slope (%): 0-1
Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) | Lat: 59.701066 | Long: -150.705689 | Datum: WGS84
Soil Map Unit Name: N/A | NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation X, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Streambank between two wet areas. Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Salix pulchra*	45	Yes	FACW
2. *Salix sitchensis*	35	Yes	FAC
3.			
4.			
5.			
6.			
	80 =Total Cover		
50% of total cover: 40	20% of total cover: 16		
Herb Stratum			
1. *Lupinus arcticus*	10	Yes	FACU
2. *Aconitum delphiniifolium*	15	Yes	FAC
3. *Castilleja unalaschcensis*	5	No	FAC
4. *Angelica lucida*	3	No	FACU
5. *Chamaenerion angustifolium*	2	No	FACU
6. *Achillea millefolium*	5	No	FACU
7. *Poa pratensis*	10	Yes	FACU
8. *Trientalis europaea*	3	No	FACU
9. *Artemisia tilesii*	2	No	FACU
10. *Pyrola asarifolia*	1	No	FACU
	56 =Total Cover		
50% of total cover: 28	20% of total cover: 12		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground 0
% Cover of Wetland Bryophytes ____ | Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	55	x 3 =	165
FACU species	36	x 4 =	144
UPL species	0	x 5 =	0
Column Totals:	136 (A)		399 (B)

Prevalence Index = B/A = 2.93

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

VEGETATION Continued – Use scientific names of plants. Sampling Point: 14

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	80 =Total Cover		
50% of total cover: 40	20% of total cover: 16		
Herb Stratum			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
	56 =Total Cover		
50% of total cover: 28	20% of total cover: 12		

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in. DBH, regardless of height.

Herb – All herbaceous (non-woody) plants, regardless of size.

Remarks:

SOIL

Sampling Point: 14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4							Peat	Fibric
4-12	5Y 4/1	100					Sandy	Coarse, 70% cobbles
12-20	2.5Y 4/1	90	10YR 4/4	10	C	PL	Sandy	Prominent redox concentrations
								coarse

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Rock refusal at 20"

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Well drained

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 7/31/2024

Applicant/Owner: AEA Sampling Point: 15

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): terrace

Local relief (concave, convex, none): none Slope (%): 0-1

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.701232 Long: -150.704234 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum			
1. *Vaccinium uliginosum*	40	Yes	FAC
2. *Empetrum nigrum*	20	No	FAC
3. *Salix sitchensis*	10	No	FAC
4. *Rubus pedatus*	10	No	FAC
5. *Salix pulchra*	25	Yes	FACW
6. *Salix reticulata*	10	No	FAC
	115 =Total Cover		
50% of total cover: 58	20% of total cover: 23		

Herb Stratum			
1. *Sedum lanceolatum*	10	Yes	UPL
2. *Platanthera aquilonis*	5	No	FACW
3. *Cornus suecica*	2	No	FAC
4. *Polemonium acutiflorum*	5	No	FAC
5. *Eriophorum angustifolium*	2	No	OBL
6. *Sanguisorba canadensis*	10	Yes	FACW
7. *Carex macrochaeta*	10	Yes	FACW
8. *Lepidium perfoliatum*	2	No	UPL
9.			
10.			
	46 =Total Cover		
50% of total cover: 23	20% of total cover: 10		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 0

% Cover of Wetland Bryophytes 5 Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	2	x 1 =	2
FACW species	50	x 2 =	100
FAC species	97	x 3 =	291
FACU species	0	x 4 =	0
UPL species	12	x 5 =	60
Column Totals:	161 (A)		453 (B)

Prevalence Index = B/A = 2.81

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

VEGETATION Continued – Use scientific names of plants. Sampling Point: 15

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	115 =Total Cover		
50% of total cover: 58	20% of total cover: 23		
Herb Stratum			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
	46 =Total Cover		
50% of total cover: 23	20% of total cover: 10		

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in. DBH, regardless of height.

Herb – All herbaceous (non-woody) plants, regardless of size.

Remarks:

SOIL

Sampling Point: 15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8							Peat	Fibric
8-20							Peat	gravel/cobbles, rock refusal

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 3

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 8/1/2024

Applicant/Owner: AEA Sampling Point: 16

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): swale

Local relief (concave, convex, none): concave Slope (%): 0-1

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.705305 Long: -150.722395 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Empetrum nigrum*	25	Yes	FAC
2. *Vaccinium uliginosum*	15	Yes	FAC
3.			
4.			
5.			
6.			
	40 =Total Cover		
50% of total cover: 20	20% of total cover: 8		
Herb Stratum			
1. *Trichophorum caespitosum*	25	Yes	OBL
2. *Eriophorum angustifolium*	45	Yes	OBL
3. *Geum calthifolium*	20	No	FACW
4. *Carex microchaeta*	10	No	FAC
5. *Eurybia sibirica*	12	No	FAC
6. *Platanthera aquilonis*	3	No	FACW
7. *Sanguisorba canadensis*	2	No	FACW
8. *Swertia perennis*	3	No	FACW
9. *Equisetum pratense*	5	No	FACW
10. *Iris setosa*	3	No	FAC
	130 =Total Cover		
50% of total cover: 65	20% of total cover: 26		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 0

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	33	x 2 =	66
FAC species	65	x 3 =	195
FACU species	0	x 4 =	0
UPL species	2	x 5 =	10
Column Totals:	170 (A)		341 (B)

Prevalence Index = B/A = 2.01

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

VEGETATION Continued – Use scientific names of plants. Sampling Point: 16

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	40 =Total Cover		
50% of total cover: 20	20% of total cover: 8		
Herb Stratum			
11. *Sedum lanceolatum*	2	No	UPL
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
	130 =Total Cover		
50% of total cover: 65	20% of total cover: 26		

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in. DBH, regardless of height.

Herb – All herbaceous (non-woody) plants, regardless of size.

Remarks:

SOIL

Sampling Point: 16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4							Peat	Fibric
4-15	10YR 3/2	80	7.5YR 4/4	20	C	M	Loamy/Clayey	Distinct redox concentrations
15-24	2.5Y 4/1	100					Sandy	10% gravels

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

AA is negative

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 15

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 8/1/2024

Applicant/Owner: AEA Sampling Point: 17

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): terrace

Local relief (concave, convex, none): none Slope (%): 0

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.706192 Long: -150.721515 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum			
1. *Vaccinium uliginosum*	10	Yes	FAC
2. *Alnus incana*	5	Yes	FAC
3. *Salix pulchra*	10	Yes	FACW
4.			
5.			
6.			
	25 =Total Cover		
50% of total cover: 13	20% of total cover: 5		

Herb Stratum			
1. *Eriophorum angustifolium*	60	Yes	OBL
2. *Platanthera aquilonis*	2	No	FACW
3. *Eurybia sibirica*	2	No	FAC
4. *Sanguisorba canadensis*	15	No	FACW
5. *Geum calthifolium*	10	No	FACW
6. *Equisetum pratense*	2	No	FACW
7. *Carex microchaeta*	40	Yes	FAC
8. *Swertia perennis*	5	No	FACW
9. *Deschampsia caespitosa*	20	No	FAC
10.			
	156 =Total Cover		
50% of total cover: 78	20% of total cover: 32		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 0

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	44	x 2 =	88
FAC species	77	x 3 =	231
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	181 (A)		379 (B)

Prevalence Index = B/A = 2.09

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: 17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-11							Peat	Fibric
11-17	10YR 2/2	100					Loamy/Clayey	
17-24	5Y 5/1	85	10YR 4/6	15	C	PL	Sandy	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- X Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

AA positive in 11 through 24 inches, coarse sand texture

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- X Water-Stained Leaves (B9)
- X Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- X Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Water starting to seep through walls, up to 6"

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon | Borough/City: Homer | Sampling Date: 8/1/2024
Applicant/Owner: AEA | Sampling Point: 18
Investigator(s): JRG, EGA | Landform (hillside, terrace, hummocks, etc.): hillside
Local relief (concave, convex, none): concave | Slope (%): 1-2
Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) | Lat: 59.703133 | Long: -150.716891 | Datum: WGS84
Soil Map Unit Name: N/A | NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus incana*	10	Yes	FAC
2.			
3.			
4.			
	10	=Total Cover	
50% of total cover: 5		20% of total cover: 2	
Sapling/Shrub Stratum			
1. *Salix pulchra*	40	Yes	FACW
2. *Salix sitchensis*	20	Yes	FAC
3. *Alnus incana*	5	No	FAC
4. *Rubus pedatus*	10	No	FAC
5.			
6.			
	75	=Total Cover	
50% of total cover: 38		20% of total cover: 15	
Herb Stratum			
1. *Calamagrostis canadensis*	25	Yes	FAC
2. *Chamaenerion angustifolium*	15	Yes	FACU
3. *Eurybia sibirica*	2	No	FAC
4. *Castilleja unalaschcensis*	5	No	FAC
5. *Veratrum viride*	10	No	FAC
6. *Sanguisorba canadensis*	5	No	FACW
7. *Pyrola asarifolia*	10	No	FACU
8. *Heracleum maximum*	5	No	FACU
9.			
10.			
	77	=Total Cover	
50% of total cover: 39		20% of total cover: 16	

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground 0
% Cover of Wetland Bryophytes ____ | Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	87	x 3 =	261
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	162 (A)		471 (B)

Prevalence Index = B/A = 2.91

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: 18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6							Peat	Fibric
6-20	10YR 3/3	100					Loamy/Clayey	10% gravels
20-24								100% gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Depleted Below Dark Surface (A11)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if observed):
Type: ___
Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-Stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
X Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? Yes ___ No X Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 8/1/2024

Applicant/Owner: AEA Sampling Point: 19

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): valley bottom

Local relief (concave, convex, none): none Slope (%): 0-1

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.699344 Long: -150.708474 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum			
1. *Salix pulchra*	45	Yes	FACW
2. *Salix sitchensis*	30	Yes	FAC
3. *Rubus arcticus*	2	No	FAC
4.			
5.			
6.			
	77 =Total Cover		
50% of total cover: 39	20% of total cover: 16		

Herb Stratum			
1. *Epilobium palustre*	5	No	OBL
2. *Lupinus arcticus*	15	Yes	FACU
3. *Pyrola asarifolia*	20	Yes	FACU
4. *Artemisia biennis*	3	No	FAC
5. *Carex microchaeta*	2	No	FAC
6. *Achillea millefolium*	1	No	FACU
7. *Castilleja unalaschcensis*	3	No	FAC
8. *Eurybia sibirica*	5	No	FAC
9.			
10.			
	54 =Total Cover		
50% of total cover: 27	20% of total cover: 11		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 10

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	45	x 2 =	90
FAC species	45	x 3 =	135
FACU species	36	x 4 =	144
UPL species	0	x 5 =	0
Column Totals:	131 (A)		374 (B)

Prevalence Index = B/A = 2.85

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: 19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4							Peat	Fibric
4-16	2.5Y 4/4	100					Sandy	coarse sand, living roots, 60% gravel
16-24	10YR 2/1	100					Sandy	40% gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Dark sandy soils below 16 inches

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Well drained

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon Borough/City: Homer Sampling Date: 8/1/2024

Applicant/Owner: AEA Sampling Point: 20

Investigator(s): JRG, EGA Landform (hillside, terrace, hummocks, etc.): terrace

Local relief (concave, convex, none): none Slope (%): 0-1

Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) Lat: 59.697394 Long: -150.709286 Datum: WGS84

Soil Map Unit Name: N/A NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Salix sitchensis*	30	Yes	FAC
2. *Salix pulchra*	20	Yes	FACW
3. *Rubus pedatus*	10	No	FAC
4.			
5.			
6.			
	60 =Total Cover		
50% of total cover: 30	20% of total cover: 12		
Herb Stratum			
1. *Lupinus arcticus*	30	Yes	FACU
2. *Pyrola asarifolia*	25	Yes	FACU
3. *Eurybia sibirica*	10	No	FAC
4. *Carex microchaeta*	5	No	FAC
5. *Artemisia biennis*	2	No	FAC
6. *Parnassia parviflora*	5	No	OBL
7.			
8.			
9.			
10.			
	77 =Total Cover		
50% of total cover: 39	20% of total cover: 16		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground 0

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	20	x 2 =	40
FAC species	57	x 3 =	171
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	137 (A)		436 (B)

Prevalence Index = B/A = 3.18

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: 20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1							Peat	Fibric
1-3	10YR 2/1	100					Loamy/Clayey	
3-8	10YR 2/1	100					Sandy	
8-16	10YR 2/1	100					Sandy	70% gravel and cobbles
16-24	10YR 2/1	100					Sandy	90% gravels

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: AEA Bradley-Dixon | Borough/City: Homer | Sampling Date: 8/1/2024
Applicant/Owner: AEA | Sampling Point: 21
Investigator(s): JRG, EGA | Landform (hillside, terrace, hummocks, etc.): hillside
Local relief (concave, convex, none): convex | Slope (%): 1-3
Subregion: LRR W1, MLRA 222 (Southern Alaska Coastal Mountains) | Lat: 59.699534 | Long: -150.705486 | Datum: WGS84
Soil Map Unit Name: N/A | NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Dry season and APT shows normal conditions

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Salix pulchra*	35	Yes	FACW
2. *Rubus pedatus*	5	No	FAC
3. *Salix sitchensis*	25	Yes	FAC
4. *Picea glauca*	3	No	FACU
5.			
6.			
	68 =Total Cover		
50% of total cover: 34	20% of total cover: 14		
Herb Stratum			
1. *Eurybia sibirica*	25	Yes	FAC
2. *Achillea millefolium*	15	Yes	FACU
3. *Angelica lucida*	10	No	FACU
4. *Lupinus arcticus*	20	Yes	FACU
5. *Pyrola asarifolia*	5	No	FACU
6. *Sanguisorba canadensis*	10	No	FACW
7. *Delphinium glaucum*	2	No	FACW
8. *Castilleja unalaschcensis*	3	No	FAC
9.			
10.			
	90 =Total Cover		
50% of total cover: 45	20% of total cover: 18		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground 0
% Cover of Wetland Bryophytes ____ | Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	47	x 2 =	94
FAC species	58	x 3 =	174
FACU species	53	x 4 =	212
UPL species	0	x 5 =	0
Column Totals:	158 (A)		480 (B)

Prevalence Index = B/A = 3.04

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
lycopodium/clubmoss

SOIL

Sampling Point: 21

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							Peat	Fibric
2-14	10YR 3/2	100					Sandy	coarse
14-24	2.5Y 3/1	100					Loamy/Clayey	30% cobbles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Thin organics

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
well drained

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion | Borough/City: Kenai Peninsula Borough | Sampling Date: 06/18/25

Applicant/Owner: AEA | Sampling Point: SP101

Investigator(s): G. Dana/J. Grabel | Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): None | Slope (%): 5-10

Subregion: LRR W1, MLRA 223 (Cook Inlet Mountains) | Lat: 59.7470 | Long: -150.84982 | Datum: WGS84

Soil Map Unit Name: Southern Alaska Coastal Mountains-Maritime Subalpine and Alpine-Mountains | NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
APT wet season, wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Sambucus racemosa*	2	No	FACU
2. *Ribes triste*	12	Yes	FAC
3. *Spiraea stevenii*	25	Yes	FACU
4. *Alnus viridis*	10	Yes	FAC
5.			
6.			
	49 =Total Cover		
50% of total cover: 25	20% of total cover: 10		

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Chamaenerion angustifolium*	20	Yes	FACU
2. *Calamagrostis canadensis*	40	Yes	FAC
3. *Sanguisorba canadensis*	15	No	FACW
4. *Veratrum viride*	15	No	FAC
5. *Carex bigelowii*	7	No	FAC
6. *Achillea millefolium*	7	No	FACU
7. *Rubus pedatus*	2	No	FAC
8. *Trientalis europaea*	2	No	FACU
9. *Dryopteris expansa*	2	No	FACU
10.			
	110 =Total Cover		
50% of total cover: 55	20% of total cover: 22		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground ____

% Cover of Wetland Bryophytes ____ | Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	86	x 3 =	258
FACU species	58	x 4 =	232
UPL species	0	x 5 =	0
Column Totals:	159 (A)		520 (B)

Prevalence Index = B/A = 3.27

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP101

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							Peat	
2-12	10YR 3/3	100					Loamy/Clayey	
12-18	7.5YR 3/3	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 18

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Below 2-18" layer- 50% cobbles

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion | Borough/City: Kenai Peninsula Borough | Sampling Date: 06/18/25

Applicant/Owner: AEA | Sampling Point: SP102

Investigator(s): G. Dana/ J. Grabel | Landform (hillside, terrace, hummocks, etc.): Hilltop

Local relief (concave, convex, none): None | Slope (%): 0-1

Subregion: LRR W1, MLRA 223 (Cook Inlet Mountains) | Lat: 59.7567 | Long: -150.8525 | Datum: WGS84

Soil Map Unit Name: Lithic Haplocryands-Alic Haplocryands-Rock outcrop complex, 45 to 100 percent slopes | NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus balsamifera*	5	Yes	FACU
2.			
3.			
4.			
	5 =Total Cover		
50% of total cover: 3	20% of total cover: 1		
Sapling/Shrub Stratum			
1. *Alnus incana*	60	Yes	FAC
2. *Ribes laxiflorum*	10	No	FACU
3. *Sambucus racemosa*	15	No	FACU
4.			
5.			
6.			
	85 =Total Cover		
50% of total cover: 43	20% of total cover: 17		
Herb Stratum			
1. *Chamaenerion angustifolium*	15	Yes	FACU
2. *Trientalis europaea*	15	Yes	FACU
3. *Achillea millefolium*	10	No	FACU
4. *Epilobium sp.*	20	Yes	
5. *Arabis lyrata*	20	Yes	FACU
6. *Heracleum maximum*	10	No	FACU
7. *Taraxacum officinale*	3	No	FACU
8. *Rubus pedatus*	5	No	FAC
9. *Calamagrostis canadensis*	10	No	FAC
10.			
	108 =Total Cover		
50% of total cover: 54	20% of total cover: 22		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground ____

% Cover of Wetland Bryophytes ____ | Total Cover of Bryophytes ____

(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	75	x 3 =	225
FACU species	103	x 4 =	412
UPL species	0	x 5 =	0
Column Totals:	178 (A)		637 (B)

Prevalence Index = B/A = 3.58

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: SP102

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							Peat	
2-24	10YR 2/1	100					Sandy	Coarse, 20% cobble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion | Borough/City: Kenai Peninsula Borough | Sampling Date: 06/19/25

Applicant/Owner: AEA | Sampling Point: SP103

Investigator(s): G. Dana/ J. Grabel | Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): None | Slope (%): 2-3

Subregion: LRR W1, MLRA 223 (Cook Inlet Mountains) | Lat: 59.739346 | Long: -150.8686 | Datum: WGS84

Soil Map Unit Name: Southern Alaska Coastal Mountains-Maritime Subalpine and Alpine-Mountains | NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum			
1. *Salix pulchra*	60	Yes	FACW
2. *Rubus spectabilis*	5	No	FACU
3.			
4.			
5.			
6.			
	65 =Total Cover		
50% of total cover: 33	20% of total cover: 13		

Herb Stratum			
1. *Chamaenerion angustifolium*	15	Yes	FACU
2. *Sanguisorba canadensis*	15	Yes	FACW
3. *Veratrum viride*	8	No	FAC
4. *Heracleum maximum*	8	No	FACU
5. *Calamagrostis canadensis*	15	Yes	FAC
6. *Trientalis europaea*	8	No	FACU
7. *Polemonium acutiflorum*	3	No	FAC
8. *Geranium erianthum*	5	No	FACU
9. *Viola langsdorffii*	5	No	UPL
10.			
	82 =Total Cover		
50% of total cover: 41	20% of total cover: 17		

Plot Size (radius, or length x width) 1/10th Acre | % Bare Ground ____

% Cover of Wetland Bryophytes ____ (Where applicable) | Total Cover of Bryophytes ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	26	x 3 =	78
FACU species	41	x 4 =	164
UPL species	5	x 5 =	25
Column Totals:	147 (A)		417 (B)

Prevalence Index = B/A = 2.84

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP103

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							Mucky Peat	
2-24	10YR 3/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Well drained

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion | Borough/City: Kenai Peninsula Borough | Sampling Date: 06/19/25

Applicant/Owner: AEA | Sampling Point: SP104

Investigator(s): G. Dana/ J. Grabel | Landform (hillside, terrace, hummocks, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 0-1

Subregion: LRR W1, MLRA 223 (Cook Inlet Mountains) | Lat: 59.7505 | Long: -150.8575 | Datum: WGS84

Soil Map Unit Name: Lithic Haplocryands-Alic Haplocryands-Rock outcrop complex, 25 to 45 percent slopes | NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation N, Soil Y, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
50% of total cover: ____	20% of total cover: ____		
Sapling/Shrub Stratum			
1. *Alnus viridis*	30	Yes	FAC
2. *Spiraea stevenii*	5	No	FACU
3. *Vaccinium uliginosum*	12	Yes	FAC
4.			
5.			
6.			
	47 =Total Cover		
50% of total cover: 24	20% of total cover: 10		
Herb Stratum			
1. *Carex bigelowii*	20	Yes	FAC
2. *Eriophorum angustifolium*	20	Yes	OBL
3. *Hedysarum spp.*	2	No	
4. *Calamagrostis canadensis*	5	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	47 =Total Cover		
50% of total cover: 24	20% of total cover: 10		

Plot Size (radius, or length x width) 15' X 40' | % Bare Ground ____

% Cover of Wetland Bryophytes ____ (Where applicable) | Total Cover of Bryophytes ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	0	x 2 =	0
FAC species	67	x 3 =	201
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	92 (A)		241 (B)

Prevalence Index = B/A = 2.62

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
10% total cover of bryophytes

SOIL

Sampling Point: SP104

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							Peat	
2-12	10YR 3/2	100					Sandy	10% roots, fine

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Boulder

Depth (inches): 12

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Problematic- Hydrophytic vegetation, wetland hydrology, concave position between two hilltops in the alpine, snowpack accumulates in swale, off from Alaska Alpine Swale indicator by 0.5 value.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- X Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches): 3		
Water Table Present?	Yes X	No ___	Depth (inches): 8		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**Wetland Hydrology Present?**	**Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Large boulders/bedrock near pit. Constrictions on both sides of gulley.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion Borough/City: Kenai Peninsula Borough Sampling Date: 06/19/25

Applicant/Owner: AEA Sampling Point: SP105

Investigator(s): G. Dana/ J. Grabel Landform (hillside, terrace, hummocks, etc.): Toeslope

Local relief (concave, convex, none): None Slope (%): 0-1

Subregion: LRR W1, MLRA 223 (Cook Inlet Mountains) Lat: 59.749404 Long: -150.8582 Datum: WGS84

Soil Map Unit Name: Southern Alaska Coastal Mountains-Maritime Subalpine and Alpine-Mountains NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus viridis*	10	Yes	FAC
2. *Salix ovalifolia*	25	Yes	FAC
3. *Salix pulchra*	5	No	FACW
4. *Rubus spectabilis*	5	No	FACU
5.			
6.			
	45	=Total Cover	
50% of total cover:	23	20% of total cover:	9

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Eriophorum angustifolium*	40	Yes	OBL
2. *Equisetum palustre*	20	Yes	FACW
3. *Sanguisorba canadensis*	10	No	FACW
4. *Viola langsdorffii*	5	No	UPL
5.			
6.			
7.			
8.			
9.			
10.			
	75	=Total Cover	
50% of total cover:	38	20% of total cover:	15

Plot Size (radius, or length x width) 20' X 30' % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	35	x 2 =	70
FAC species	35	x 3 =	105
FACU species	5	x 4 =	20
UPL species	5	x 5 =	25
Column Totals:	120 (A)		260 (B)

Prevalence Index = B/A = 2.17

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
1% total cover of bryophytes

SOIL

Sampling Point: SP105

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/3	100					Peat	
14-24	10YR 3/2	100					Sandy	Fine

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Hydrogen sulfide odor during excavation

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches): 6		
Water Table Present?	Yes X	No ___	Depth (inches): 13		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 4	**Wetland Hydrology Present?**	**Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion | Borough/City: Kenai Peninsula Borough | Sampling Date: 06/19/25

Applicant/Owner: AEA | Sampling Point: SP106

Investigator(s): G. Dana/ J. Grabel | Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Concave | Slope (%): 5-7

Subregion: LRR W1, MLRA 223 (Cook Inlet Mountains) | Lat: 59.750 | Long: -150.8581 | Datum: WGS84

Soil Map Unit Name: Southern Alaska Coastal Mountains-Maritime Subalpine and Alpine-Mountains | NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Alnus viridis*	20	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	20 =Total Cover		
50% of total cover: 10	20% of total cover: 4		
Herb Stratum			
1. *Chamaenerion angustifolium*	5	No	FACU
2. *Geranium erianthum*	7	No	FACU
3. *Sanguisorba canadensis*	10	No	FACW
4. *Calamagrostis canadensis*	30	Yes	FAC
5. *Heracleum maximum*	16	No	FACU
6. *Veratrum viride*	30	Yes	FAC
7. *Artemisia tilesii*	26	Yes	FACU
8. *Claytonia spp.*	1	No	
9. *Fritillaria camschatcensis*	2	No	FAC
10.			
	127 =Total Cover		
50% of total cover: 64	20% of total cover: 26		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground ____

% Cover of Wetland Bryophytes ____ | Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	82	x 3 =	246
FACU species	54	x 4 =	216
UPL species	0	x 5 =	0
Column Totals:	146 (A)		482 (B)

Prevalence Index = B/A = 3.30

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP106

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							Peat	
2-8	10YR 3/2	90	7.5YR 2.5/3	10	C	PL	Loamy/Clayey	Faint redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 8

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion | Borough/City: Kenai Peninsula Borough | Sampling Date: 06/19/25

Applicant/Owner: AEA | Sampling Point: SP107

Investigator(s): G. Dana/ J. Grabel | Landform (hillside, terrace, hummocks, etc.): Depression

Local relief (concave, convex, none): None | Slope (%): 0-1

Subregion: LRR W1, MLRA 223 (Cook Inlet Mountains) | Lat: 59.7517 | Long: -150.8595 | Datum: WGS84

Soil Map Unit Name: Lithic Haplocryands-Alic Haplocryands-Rock outcrop complex, 25 to 45 percent slopes | NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Alnus viridis*	7	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	7 =Total Cover		
50% of total cover: 4	20% of total cover: 2		

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Eriophorum angustifolium*	70	Yes	OBL
2. *Sanguisorba canadensis*	5	No	FACW
3. *Geocaulon lividum*	7	No	FACU
4. *Equisetum palustre*	3	No	FACW
5. *Andromeda polifolia*	15	No	FACW
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
50% of total cover: 50	20% of total cover: 20		

Plot Size (radius, or length x width) 20' X 30' | % Bare Ground ____

% Cover of Wetland Bryophytes ____ (Where applicable) | Total Cover of Bryophytes ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	23	x 2 =	46
FAC species	7	x 3 =	21
FACU species	7	x 4 =	28
UPL species	0	x 5 =	0
Column Totals:	107 (A)		165 (B)

Prevalence Index = B/A = 1.54

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
15% total cover of bryophytes

SOIL

Sampling Point: SP107

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/2	100					Peat	
18-24	10YR 4/2	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Hydrogen sulfide odor at 12"

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- X Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches): 18		
Water Table Present?	Yes X	No ___	Depth (inches): 4		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 2	**Wetland Hydrology Present?**	**Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion Borough/City: Kenai Peninsula Borough Sampling Date: 06/19/25

Applicant/Owner: AEA Sampling Point: SP108

Investigator(s): G. Dana/ J. Grabel Landform (hillside, terrace, hummocks, etc.): Hillslope

Local relief (concave, convex, none): Convex Slope (%): 7-10

Subregion: LRR W1, MLRA 223 (Cook Inlet Mountains) Lat: 59.75486 Long: -150.8609 Datum: WGS84

Soil Map Unit Name: Lithic Haplocryands-Alic Haplocryands-Rock outcrop complex, 25 to 45 percent slopes NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum			
1. *Rubus spectabilis*	7	Yes	FACU
2. *Alnus viridis*	10	Yes	FAC
3.			
4.			
5.			
6.			
	17 =Total Cover		
50% of total cover: 9	20% of total cover: 4		

Herb Stratum			
1. *Calamagrostis canadensis*	70	Yes	FAC
2. *Veratrum viride*	15	No	FAC
3. *Chamaenerion angustifolium*	10	No	FACU
4. *Streptopus amplexifolius*	2	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	97 =Total Cover		
50% of total cover: 49	20% of total cover: 20		

Plot Size (radius, or length x width) 1/10th Acre % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	95	x 3 =	285
FACU species	19	x 4 =	76
UPL species	0	x 5 =	0
Column Totals:	114 (A)		361 (B)

Prevalence Index = B/A = 3.17

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP108

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							Peat	
2-22	5YR 2.5/2	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock/boulder

Depth (inches): 22

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion Borough/City: Kenai Peninsula Borough Sampling Date: 06/19/25

Applicant/Owner: AEA Sampling Point: SP109

Investigator(s): G. Dana/ J. Grabel Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): 3-5

Subregion: LRR W1, MLRA 223 (Cook Inlet Mountains) Lat: 59.75305 Long: -150.8724 Datum: WGS84

Soil Map Unit Name: Lithic Haplocryands-Alic Haplocryands-Rock outcrop complex, 25 to 45 percent slopes NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Picea X lutzii*	40	Yes	FACU
2.			
3.			
4.			
	40 =Total Cover		
50% of total cover: 20	20% of total cover: 8		
Sapling/Shrub Stratum			
1. *Salix pulchra*	7	No	FACW
2. *Empetrum nigrum*	40	Yes	FAC
3.			
4.			
5.			
6.			
	47 =Total Cover		
50% of total cover: 24	20% of total cover: 10		
Herb Stratum			
1.			
2. *Chamaenerion angustifolium*	5	No	FACU
3. *Lupinus arcticus*	5	No	FACU
4. *Cornus alba*	15	Yes	FAC
5. *Geranium erianthum*	5	No	FACU
6. *Rubus pedatus*	12	Yes	FAC
7.			
8.			
9.			
10.			
	42 =Total Cover		
50% of total cover: 21	20% of total cover: 9		

Plot Size (radius, or length x width) 1/10th acre % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	7	x 2 =	14
FAC species	67	x 3 =	201
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	129 (A)		435 (B)

Prevalence Index = B/A = 3.37

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP109

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							Peat	
2-22	10YR 2/2	100					Loamy/Clayey	50% Gravel/cobbel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 22

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion | Borough/City: Kenai Peninsula Borough | Sampling Date: 06/18/25

Applicant/Owner: AEA | Sampling Point: SP110

Investigator(s): G. Dana/ J. Grabel | Landform (hillside, terrace, hummocks, etc.): Bench

Local relief (concave, convex, none): Concave | Slope (%): 0-1

Subregion: LRR W1, MLRA 220 (Alexander Archipelago-Gulf of Alaska Coast) | Lat: 59.75581 | Long: -150.9285 | Datum: WGS84

Soil Map Unit Name: Tutka-Portgraham complex, hilly to steep | NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Picea X lutzii*	30	Yes	FACU
2.			
3.			
4.			
	30 =Total Cover		
50% of total cover: 15	20% of total cover: 6		
Sapling/Shrub Stratum			
1. *Alnus viridis*	60	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	60 =Total Cover		
50% of total cover: 30	20% of total cover: 12		
Herb Stratum			
1. *Dryopteris expansa*	20	Yes	FACU
2. *Oplopanax horridus*	40	Yes	FACU
3. *Streptopus amplexifolius*	7	No	FACU
4. *Aruncus dioicus*	10	No	UPL
5. *Gymnocarpium dryopteris*	10	No	FACU
6.			
7.			
8.			
9.			
10.			
	87 =Total Cover		
50% of total cover: 44	20% of total cover: 18		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground ____

% Cover of Wetland Bryophytes ____ (Where applicable) | Total Cover of Bryophytes ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	107	x 4 =	428
UPL species	10	x 5 =	50
Column Totals:	177 (A)		658 (B)

Prevalence Index = B/A = 3.72

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
7% total cover of bryophytes

SOIL

Sampling Point: SP110

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1							Peat	
1-16	10YR 2/2	100					Loamy/Clayey	
16-24	10YR 4/3	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Moderate hummocky.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion | Borough/City: Kenai Peninsula Borough | Sampling Date: 06/18/25

Applicant/Owner: AEA | Sampling Point: SP111

Investigator(s): G. Dana/ J. Grabel | Landform (hillside, terrace, hummocks, etc.): Bench

Local relief (concave, convex, none): Concave | Slope (%): 0-2

Subregion: LRR W1, MLRA 220 (Alexander Archipelago-Gulf of Alaska Coast) | Lat: 59.7560 | Long: -150.9309 | Datum: WGS84

Soil Map Unit Name: Tutka-Portgraham complex, hilly to steep | NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus balsamifera*	10	Yes	FACU
2.			
3.			
4.			
	10 =Total Cover		
50% of total cover: 5	20% of total cover: 2		
Sapling/Shrub Stratum			
1. *Alnus viridis*	30	Yes	FAC
2. *Sambucus racemosa*	20	Yes	FACU
3. *Rubus spectabilis*	10	No	FACU
4. *Ribes triste*	3	No	FAC
5. *Populus balsamifera*	3	No	FACU
6. *Salix scouleriana*	7	No	FAC
	73 =Total Cover		
50% of total cover: 37	20% of total cover: 15		
Herb Stratum			
1. *Calamagrostis canadensis*	20	Yes	FAC
2. *Oplopanax horridus*	15	Yes	FACU
3. *Sanguisorba canadensis*	5	No	FACW
4. *Equisetum arvense*	7	No	FAC
5. *Geum calthifolium*	3	No	FACW
6. *Athyrium cyclosorum*	3	No	FAC
7. *Chamaenerion angustifolium*	7	No	FACU
8. *Aruncus dioicus*	5	No	UPL
9. *Taraxacum officinale*	2	No	FACU
10.			
	67 =Total Cover		
50% of total cover: 34	20% of total cover: 14		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground ____
% Cover of Wetland Bryophytes ____ | Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	8	x 2 =	16
FAC species	70	x 3 =	210
FACU species	67	x 4 =	268
UPL species	5	x 5 =	25
Column Totals:	150 (A)		519 (B)

Prevalence Index = B/A = 3.46

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:
2% total cover of bryophytes

SOIL

Sampling Point: SP111

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5							Peat	
5-24	10YR 2/2	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion | Borough/City: Kenai Peninsula Borough | Sampling Date: 06/19/25

Applicant/Owner: AEA | Sampling Point: SP112

Investigator(s): G. Dana/ J. Grabel | Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Concave | Slope (%): 2-3

Subregion: LRR W1, MLRA 220 (Alexander Archipelago-Gulf of Alaska Coast) | Lat: 59.7592 | Long: -150.9418 | Datum: WGS84

Soil Map Unit Name: Tutka-Portgraham complex, hilly to steep | NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Picea X lutzii*	5	Yes	FACU
2.			
3.			
4.			
	5 =Total Cover		
50% of total cover: 3	20% of total cover: 1		
Sapling/Shrub Stratum			
1. *Ribes triste*	15	No	FAC
2. *Menziesia ferruginea*	40	Yes	FACU
3. *Alnus viridus*	30	Yes	FAC
4. *Sambucus racemosa*	15	No	FACU
5.			
6.			
	100 =Total Cover		
50% of total cover: 50	20% of total cover: 20		
Herb Stratum			
1. *Dryopteris expansa*	20	Yes	FACU
2. *Streptopus amplexifolius*	7	No	FACU
3. *Gymnocarpium dryopteris*	10	No	FACU
4. *Oplopanax horridus*	30	Yes	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	67 =Total Cover		
50% of total cover: 34	20% of total cover: 14		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground ____

% Cover of Wetland Bryophytes ____ | Total Cover of Bryophytes ____

(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	127	x 4 =	508
UPL species	0	x 5 =	0
Column Totals:	172 (A)		643 (B)

Prevalence Index = B/A = 3.74

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: SP112

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1							Peat	
1-4	10YR 3/2	100					Sandy	
4-8	7.5YR 2.5/3	100					Sandy	
8-24	10YR 5/2	70	10YR 3/4	30	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Well drained

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion Borough/City: Kenai Peninsula Borough Sampling Date: 06/18/25

Applicant/Owner: AEA Sampling Point: SP113

Investigator(s): G. Dana/ J. Grabel Landform (hillside, terrace, hummocks, etc.): Floodplain

Local relief (concave, convex, none): None Slope (%): 0-1

Subregion: LRR W1, MLRA 220 (Alexander Archipelago-Gulf of Alaska Coast) Lat: 59.7685 Long: -150.963121 Datum: WGS84

Soil Map Unit Name: Urban land NWI classification: E2EM1P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum			
1. *Populus balsamifera*	5	Yes	FACU
2. *Alnus viridis*	5	Yes	FAC
3.			
4.			
5.			
6.			
	10 =Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum			
1. *Angelica lucida*	3	No	FACU
2. *Equisetum arvense*	45	Yes	FAC
3. *Calamagrostis canadensis*	30	Yes	FAC
4. *Taraxacum officinale*	10	No	FACU
5. *Achillea millefolium*	12	No	FACU
6. *Lathyrus japonicus*	5	No	FAC
7. *Caltha palustris*	7	No	OBL
8.			
9.			
10.			
	112 =Total Cover		
50% of total cover: 56	20% of total cover: 23		

Plot Size (radius, or length x width) 12' x 20' % Bare Ground 3

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	7	x 1 =	7
FACW species	0	x 2 =	0
FAC species	85	x 3 =	255
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	122 (A)		382 (B)

Prevalence Index = B/A = 3.13

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
Rocks to North and South. Floodplain area is 8 feet wide, with sample point 2-3 feet above the stream.

SOIL

Sampling Point: SP113

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/2	100					Peat	
6-14	10YR 4/1	90					Muck	10% mineral soil
14-24	N 3/	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)

- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___			
Water Table Present?	Yes X	No ___	Depth (inches): 13			
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 9	**Wetland Hydrology Present?**	**Yes** X	**No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion | Borough/City: Kenai Peninsula Borough | Sampling Date: 06/18/25

Applicant/Owner: AEA | Sampling Point: SP114

Investigator(s): G. Dana/ J. Grabel | Landform (hillside, terrace, hummocks, etc.): Lowland

Local relief (concave, convex, none): None | Slope (%): 0

Subregion: LRR W1, MLRA 220 (Alexander Archipelago-Gulf of Alaska Coast) | Lat: 59.7686 | Long: -150.966609 | Datum: WGS84

Soil Map Unit Name: Urban land | NWI classification: E2EM1P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum			
1. *Calamagrostis canadensis*	60	Yes	FAC
2. *Lycopus uniflorus*	10	No	OBL
3. *Lathyrus japonicus*	5	No	FAC
4.			
5. *Festuca rubra*	15	No	FAC
6. *Carex aquatilis*	10	No	OBL
7.			
8.			
9.			
10.			
	100 =Total Cover		
50% of total cover: 50	20% of total cover: 20		

Plot Size (radius, or length x width) 1/10th acre | % Bare Ground ____

% Cover of Wetland Bryophytes ____ (Where applicable) | Total Cover of Bryophytes ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	0	x 2 =	0
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		260 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: SP114

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/3	100					Peat	
4-8	10Y 4/1	90					Loamy/Clayey	10% organic 10YR 3/3
8-24	N 3/	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** ___

Remarks:

Hydrogen sulfide at excavation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 5

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Alaska Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bradley Lake- Dixon Diversion Borough/City: Kenai Peninsula Borough Sampling Date: 06/18/25

Applicant/Owner: AEA Sampling Point: SP15

Investigator(s): G. Dana/ J. Grabel Landform (hillside, terrace, hummocks, etc.): Lowland

Local relief (concave, convex, none): None Slope (%): 0-1

Subregion: LRR W1, MLRA 220 (Alexander Archipelago-Gulf of Alaska Coast) Lat: 59.7652 Long: -150.9636 Datum: WGS84

Soil Map Unit Name: Urban land NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
APT wet season and wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus balsamifera*	40	Yes	FACU
2. *Alnus viridis*	10	No	FAC
3. *Picea X lutzii*	20	Yes	FACU
4. *Salix spp.*	5	No	
	75	=Total Cover	
50% of total cover:	38	20% of total cover:	15

Sapling/Shrub Stratum			
1. *Picea X lutzii*	3	Yes	FACU
2. *Alnus viridis*	5	Yes	FAC
3.			
4.			
5.			
6.			
	8	=Total Cover	
50% of total cover:	4	20% of total cover:	2

Herb Stratum			
1. *Calamagrostis canadensis*	35	Yes	FAC
2. *Carex canescens*	7	No	FACW
3. *Galium boreale*	2	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	44	=Total Cover	
50% of total cover:	22	20% of total cover:	9

Plot Size (radius, or length x width) 1/10th acre % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	7	x 2 =	14
FAC species	50	x 3 =	150
FACU species	65	x 4 =	260
UPL species	0	x 5 =	0
Column Totals:	122 (A)		424 (B)

Prevalence Index = B/A = 3.48

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:
5% total cover of bryophytes, closed forest.

SOIL

Sampling Point: SP15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							Peat	
2-12	10YR 2/2	100					Loamy/Clayey	40% gravel, silt loam
12-18	10YR 4/1	100					Loamy/Clayey	Silty clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)
- ___ Iron Monosulfide (A18)

Indicators for Problematic Hydric Soils[3]:

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 18

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX C-2 PHOTO LOG

Photo Type: SP1	Location Description: 59.745632, -150.834811	Landscape: FACING NORTH

Landscape: FACING EAST

SOIL PIT

Photo Type: SP2	Location Description: 59.745197, -150.839373	Landscape: FACING SOUTH

Landscape: FACING WEST

SOIL PIT

Photo Type: SP3	Location Description: 59.744933, 150.843848	Landscape: FACING EAST

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP4	Location Description: 59.746953, -150.831922	Landscape: FACING SOUTH

Landscape: FACING WEST

SOIL PIT

Photo Type: SP5	Location Description: 59.746953, -150.831922	Landscape: FACING NORTH

Landscape: FACING EAST

SOIL PIT

Photo Type: SP6	Location Description: 59.745758, -150.833393	Landscape: FACING EAST

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP7	Location Description: 59.746483, -150.828527	Landscape: FACING NORTH

Landscape: FACING WEST

SOIL PIT

Photo Type: SP8	Location Description: 59.747314, -150.828525	Landscape: FACING NORTH

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP9	Location Description: 59.724102, -150.694182	Landscape: FACING NORTH

Landscape: FACING EAST

SOIL PIT

Photo Type: SP10	Location Description: 59.724102, -150.694411	Landscape: FACING NORTH

Landscape: FACING EAST

SOIL PIT

Photo Type: SP11	Location Description: 59.722653, -150.689253	Landscape: FACING NORTH

Landscape: FACING EAST

SOIL PIT

Photo Type: SP12	Location Description: 59.721155, -150.685919	Landscape: FACING EAST

Landscape: FACING WEST

SOIL PIT

Photo Type: SP13	Location Description: 59.728768, -150.689389	Landscape: FACING SOUTH

Landscape: FACING WEST

SOIL PIT

Photo Type: SP14	Location Description: 59.701064, -150.705667	Landscape: FACING EAST

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP15	Location Description: 59.701231, -150.704212	Landscape: FACING NORTH

Landscape: FACING WEST

SOIL PIT

Photo Type: SP16	Location Description: 59.705304, -150.722373	Landscape: FACING NORTH

Landscape: FACING EAST

SOIL PIT

Photo Type: SP17	Location Description: 59.706191, -150.721493	Landscape: FACING EAST

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP18	Location Description: 59.703131, -150.716869	Landscape: FACING EAST

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP19	Location Description: 59.699343, -150.708452	Landscape: FACING NORTH

Landscape: FACING EAST

SOIL PIT

Photo Type: SP20	Location Description: 59.697392, -150.706264	Landscape: FACING EAST

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP21	Location Description: 59.699533, -150.705464	Landscape: FACING EAST

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP101	Location Description: 59.747073, -150.849860	Landscape: FACING NORTH

Landscape: FACING EAST

SOIL PIT

Photo Type: SP102	Location Description: 59.756732, -150.85249	Landscape: FACING EAST

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP103	Location Description: 59.739345, -150.868612	Landscape: FACING NORTH

Landscape: FACING WEST

SOIL PIT

Photo Type: SP104	Location Description: 59.750499, -150.857554	Landscape: FACING NORTH

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP105	Location Description: 59.749932, -150.858187	Landscape: FACING NORTH

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP106	Location Description: 59.750022, -150.858163	Landscape: FACING NORTH

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP107	Location Description: 59.751737, -150.859535	Landscape: FACING NORTH

Landscape: FACING WEST

SOIL PIT

Photo Type: SP108	Location Description: 59.754862, -150.860913	Landscape: FACING NORTH

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP109	Location Description: 59.753053, -150.873403	Landscape: FACING SOUTH

Landscape: FACING WEST

SOIL PIT

Photo Type: SP110	Location Description: 59.755818, -150.92848	Landscape: FACING SOUTH

Landscape: FACING WEST

SOIL PIT

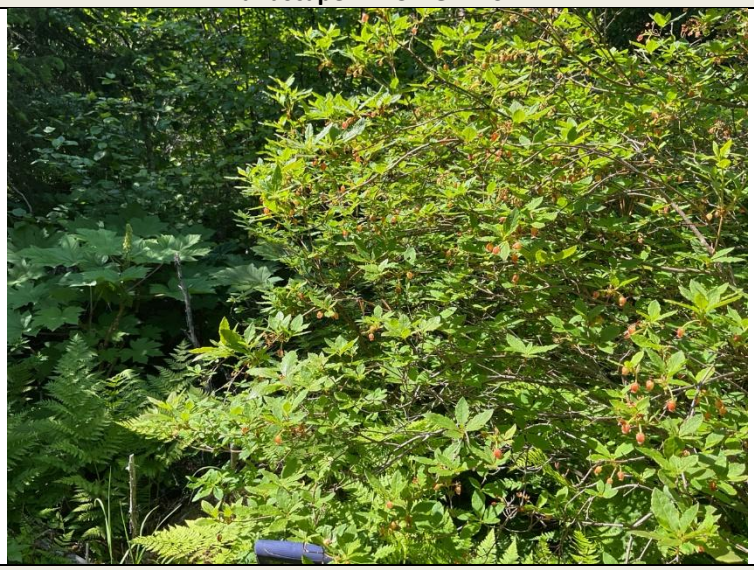
Photo Type: SP111	Location Description: 59.756096, -150.93093	Landscape: FACING NORTH

Landscape: FACING EAST

SOIL PIT

Photo Type: SP112	Location Description: 59.754199, -150.941847	Landscape: FACING NORTH

Landscape: FACING WEST



SOIL PIT

Photo Type: SP113	Location Description: 59.768592, -150.963099	Landscape: FACING SOUTH

Landscape: FACING WEST

SOIL PIT

Photo Type: SP114	Location Description: 59.768631, -150.966587	Landscape: FACING NORTH

Landscape: FACING SOUTH

SOIL PIT

Photo Type: SP115	Location Description: 59.765278, -150.963666	Landscape: FACING EAST

Landscape: FACING WEST

SOIL PIT

Photo Type: PP1	Location Description: 59.744776, -150.845558	Landscape: FACING NORTH

Landscape: FACING EAST

SOIL PLUG

Photo Type: PP2	Location Description: 59.744854, -150.844835	Stream : FACING UPSTREAM

Stream : FACING DOWNSTREAM

Stream : FACING ACROSS

Photo Type: PP3	Location Description: 59.745315, -150.838464	Landscape: FACING NORTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP4	Location Description: 59.745238, -150.837983	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Steam: FACING ACROSS

Photo Type: PP5	Location Description: 59.745205, -150.837777	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP6	Location Description: 59.745233, -150.837153	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP7	Location Description: 59.745486, -150.836847	Landscape: FACING NORTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP8	Location Description: 59.745393, -150.836511	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP9	Location Description: 59.745446, -150.835953	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACOSS

Photo Type: PP10	Location Description: 59.745523, -150.835134	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP11	Location Description: 59.745227, -150.837312	Landscape: FACING NORTH

Landscape: FACING WEST

Oberved ground cover

Photo Type: PP12	Location Description: 59.744893, -150.842832	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP13	Location Description: 59.744798, -150.844742	Landscape: FACING NORTH

Landscape: FACING EAST

SOILS: Soil plug

Photo Type: PP14	Location Description: 59.744643, -150.846074	Landscape: FACING SOUTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP15	Location Description: 59.744963, -150.846308	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP16	Location Description: 59.744747, -150.847005	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP17	Location Description: 59.744690, -150.847410	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP18	Location Description: 59.754904, -150.855926	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP19	Location Description: 59.755167, -150.854632	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

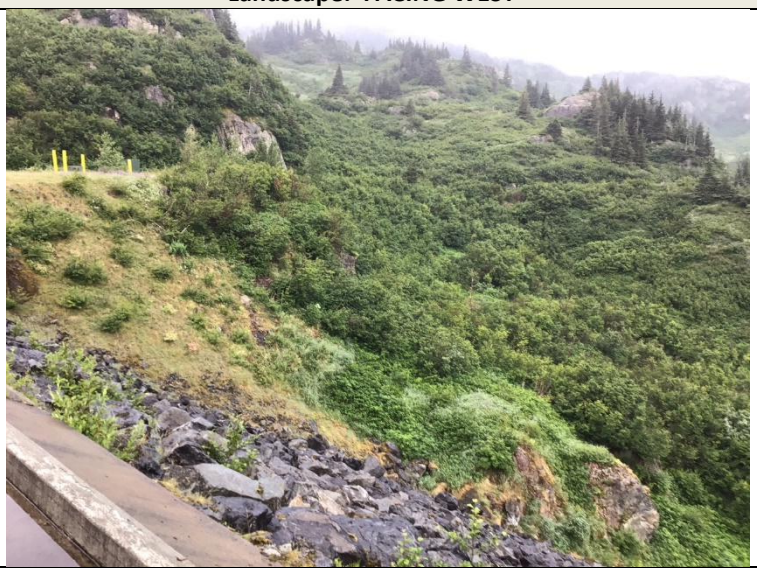


Photo Type: PP20	Location Description: 59.755241, -150.852756	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP21	Location Description: 59.755347, -150.851105	Landscape: FACING NORTH

Landscape: FACING EAST

Observed ground cover

Photo Type: PP22	Location Description: 59.694091, -150.916818	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP23	Location Description: 59.694164, -150.917363	Landscape: FACING NORTH

Landscape: FACING SOUTH

HYDROLOGY

Photo Type: PP24	Location Description: 59.694088, -150.917684	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP25	Location Description: 59.694587, -150.918530	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP26	Location Description: 59.747059, -150.832118	Landscape: FACING SOUTH

Landscape: FACING WEST

Observed ground cover

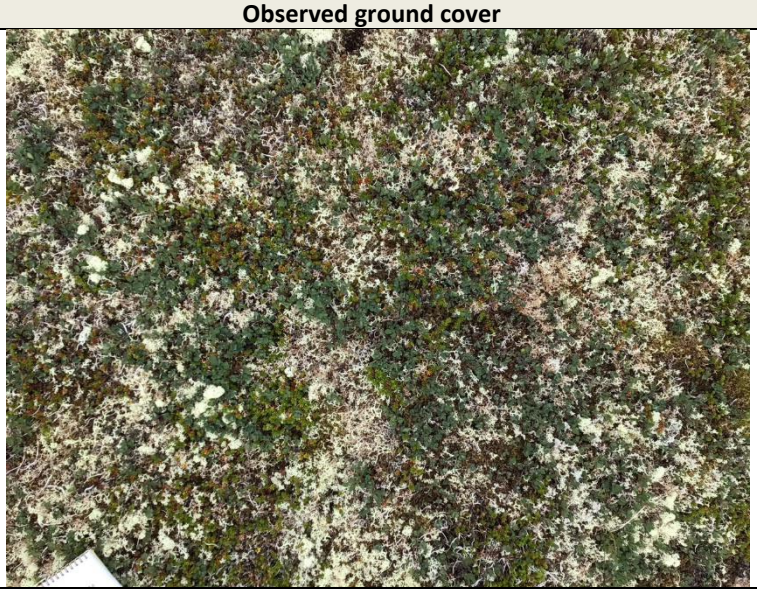


Photo Type: PP27	Location Description: 59.746837, -150.831074	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP28	Location Description: 59.746477, -150.832211	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP29	Location Description: 59.746188, -150.832351	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP30	Location Description: 59.746002, -150.833130	Landscape: FACING NORTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP31	Location Description: 59.745766, -150.834063	Landscape: FACING NORTH

Landscape: FACING WEST

Observed ground cover, across stream

Photo Type: PP32	Location Description: 59.746502, -150.831607	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP33	Location Description: 59.746598, -150.830906	Landscape: FACING NORTH

Landscape: FACING EAST

Observed ground cover

Photo Type: PP34	Location Description: 59.746424, -150.828397	Landscape: FACING NORTH

Landscape: FACING WEST

SOILS: Soil plug

Photo Type: PP35	Location Description: 59.747172, -150.829173	Landscape: FACING NORTH

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP36	Location Description: 59.723148, -150.692951	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP37	Location Description: 59.732202, -150.629031	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP38	Location Description: 59.724009, -150.695115	Landscape: FACING NORTH

Landscape: FACING EAST

SOILS: Soil plug

Photo Type: PP39	Location Description: 59.724127, -150.695806	Landscape: FACING SOUTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP40	Location Description: 59.724382, -150.695850	Landscape: FACING SOUTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP41	Location Description: 59.722922, -150.695781	Landscape: FACING NORTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP42	Location Description: 59.722224, -150.695017	Landscape: FACING NORTH

Landscape: FACING EAST

Observed ground cover

Photo Type: PP43	Location Description: 59.721953, -150.694688	Landscape: FACING NORTH

Landscape: FACING EAST

HYDROLOGY

Photo Type: PP44	Location Description: 59.721816, -150.693346	Landscape: FACING SOUTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP45	Location Description: 59.721879, -150.691755	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP46	Location Description: 59.721698, -150.691212	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP47	Location Description: 59.722209, -150.688189	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP48	Location Description: 59.722080, -150.686386	Landscape: FACING NORTH

Landscape: FACING EAST

Observed ground cover

Photo Type: PP49	Location Description: 59.721694, -150.686369	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP50	Location Description: 59.721280, -150.685770	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP51	Location Description: 59.723512, -150.688273	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP52	Location Description: 59.728355, -150.688837	Landscape: FACING NORTH

Landscape: FACING EAST

Observed ground cover

Photo Type: PP53	Location Description: 59.700831, -150.705248	Landscape: FACING NORTH

Landscape: FACING EAST

Observed ground cover

Photo Type: PP54	Location Description: 59.700632, -150.703699	Landscape: FACING EAST

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP55	Location Description: 59.701306, -150.704916	Landscape: FACING NORTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP56	Location Description: 59.701739, -150.705102	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP57	Location Description: 59.701640, -150.704365	Landscape: FACING SOUTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP58	Location Description: 59.705491, -150.722894	Landscape: FACING SOUTH

Landscape: FACING WEST

SOILS: Soil plug

Photo Type: PP59	Location Description: 59.705013, -150.721804	Landscape: FACING NORTH

Landscape: FACING EAST

SOILS: Soil plug

Photo Type: PP60	Location Description: 59.706191, -150.720330	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP61	Location Description: 59.705997, -150.719849	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP62	Location Description: 59.705141, -150.719364	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

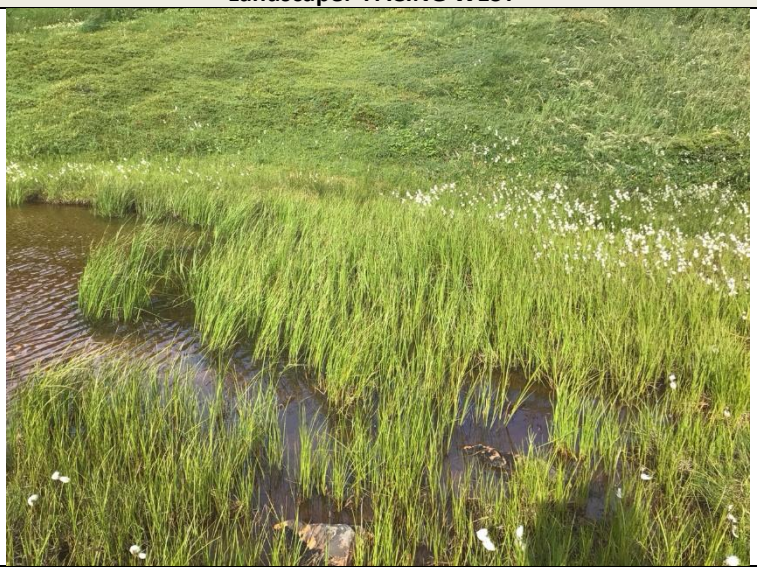


Photo Type: PP63	Location Description: 59.705306, -150.718867	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP64	Location Description: 59.705302, -150.718011	Landscape: FACING NORTH

Landscape: FACING EAST

HYDROLOGY

Photo Type: PP65	Location Description: 59.704514, -150.719508	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP66	Location Description: 59.703959, -150.720053	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP67	Location Description: 59.703598, -150.719812	Landscape: FACING NORTH

Landscape: FACING SOUTH

Observed ground cover

Photo Type: PP68	Location Description: 59.702878, -150.717001	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP69	Location Description: 59.700345, -150.707066	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP70	Location Description: 59.700162, -150.707352	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP71	Location Description: 59.699767, -150.707466	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP72	Location Description: 59.699633, -150.708658	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP73	Location Description: 59.701484, -150.707196	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP74	Location Description: 59.701953, -150.707467	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP75	Location Description: 59.702008, -150.708687	Landscape: FACING NORTH

Landscape: FACING WEST

Observed ground cover

Photo Type: PP76	Location Description: 59.702625, -150.708577	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP77	Location Description: 59.701895, -150.711255	Landscape: AERIAL FACING NORTH

Photo Type: PP78	Location Description: 59.697809, -150.706957	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP79	Location Description: 59.697830, -150.704291	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP80	Location Description: 59.698604, -150.704776	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP81	Location Description: 59.698199, -150.706933	Landscape: FACING NORTH

Landscape: FACING EAST

Observed ground cover

Photo Type: PP82	Location Description: 59.699289, -150.706133	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP83	Location Description: 59.755807, -150.851976	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP84	Location Description: 59.755977, -150.854299	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP85	Location Description: 59.755920, -150.853437	Landscape: FACING EAST

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP101	Location Description: 59.7383, -150.868999	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP102	Location Description: 59.73805, -150.869261	Landscape: FACING EAST

Landscape: FACING SOUTH

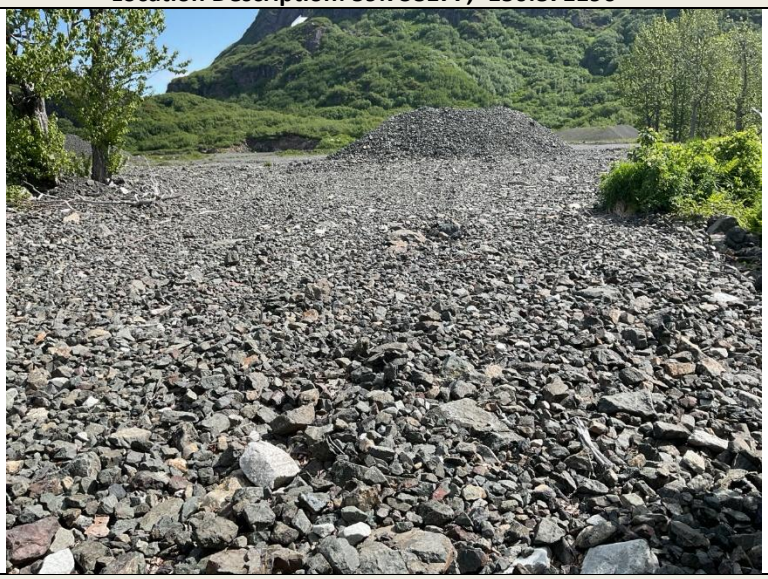
Landscape: FACING WEST

Photo Type: PP103	Location Description: 59.738018, -150.870427	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP104	Location Description: 59.738177, -150.871196	Landscape: FACING NORTH



Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP105	Location Description: 59.738815, -150.870547	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP106	Location Description: 59.739206, -150.868697	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP107	Location Description: 59.745071, -150.848621	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP108	Location Description: 59.745039, -150.847683	Landscape: FACING NORTH

Landscape: FACING WEST

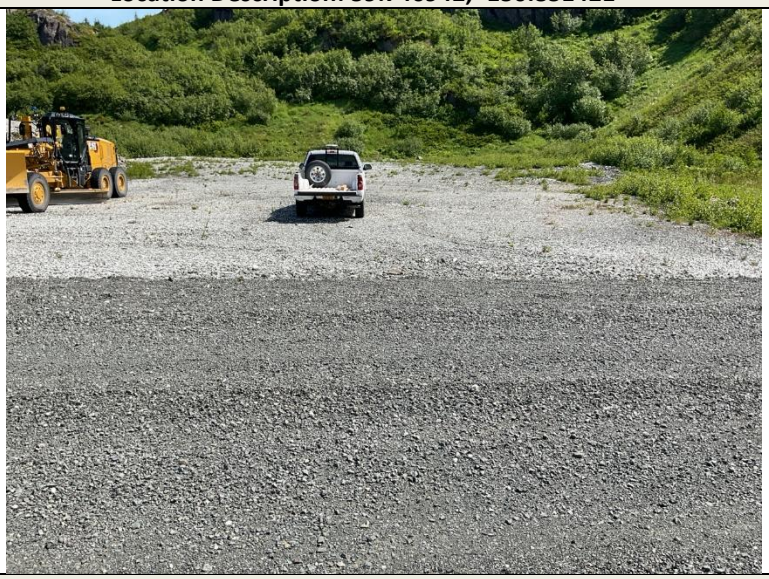
GROUND CONDITIONS

Photo Type: PP109	Location Description: 59.745099, -150.847359	Landscape: FACING EAST

Landscape: FACING SOUTH

GROUND CONDITIONS

Photo Type: PP110	Location Description: 59.746942, -150.851421	Landscape: FACING EAST



Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP111	Location Description: 59.746819, -150.850111	Landscape: FACING EAST

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP112	Location Description: 59.7474, -150.850082	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP113	Location Description: 59.747546, -150.850488	Landscape: FACING NORTH

Landscape: FACING EAST

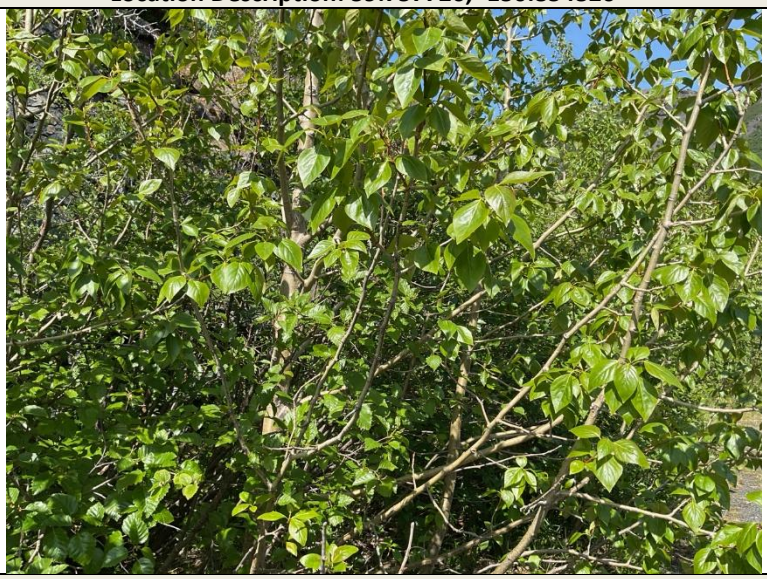
Landscape: FACING WEST

Photo Type: PP114	Location Description: 59.757025, -150.855399	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP115	Location Description: 59.757726, -150.854826	Landscape: FACING NORTH



Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP116	Location Description: 59.758024, -150.853816	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP117	Location Description: 59.7578, -150.853015	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP118	Location Description: 59.75669, -150.851905	Landscape: FACING EAST

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP119	Location Description: 59.756865, -150.855138	Landscape: FACING EAST

Landscape: FACING SOUTH

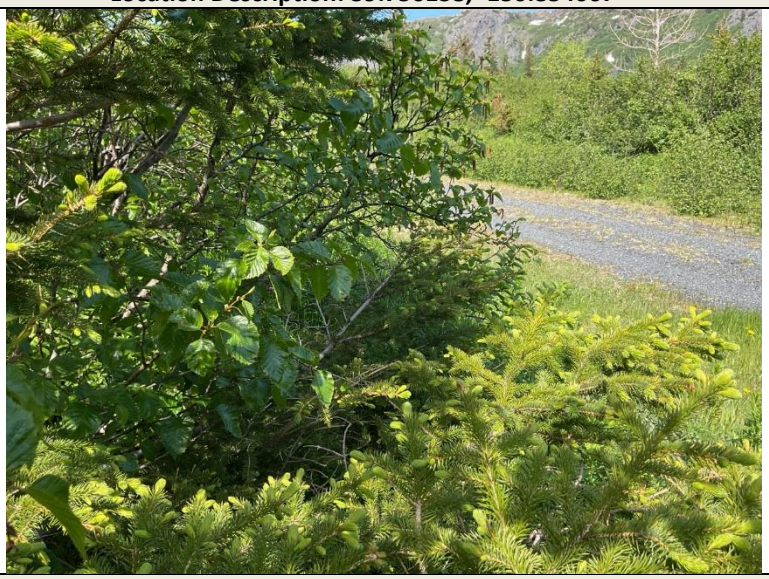
Landscape: FACING WEST

Photo Type: PP120	Location Description: 59.756688, -150.854995	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

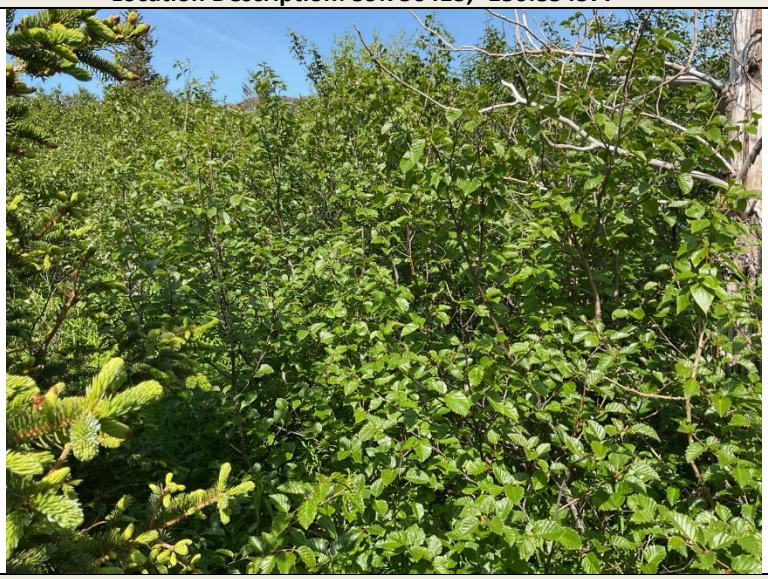
Photo Type: PP121	Location Description: 59.756138, -150.854667	Landscape: FACING NORTH



Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP122	Location Description: 59.756413, -150.854377	Landscape: FACING NORTH



Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP123	Location Description: 59.756551, -150.855789	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

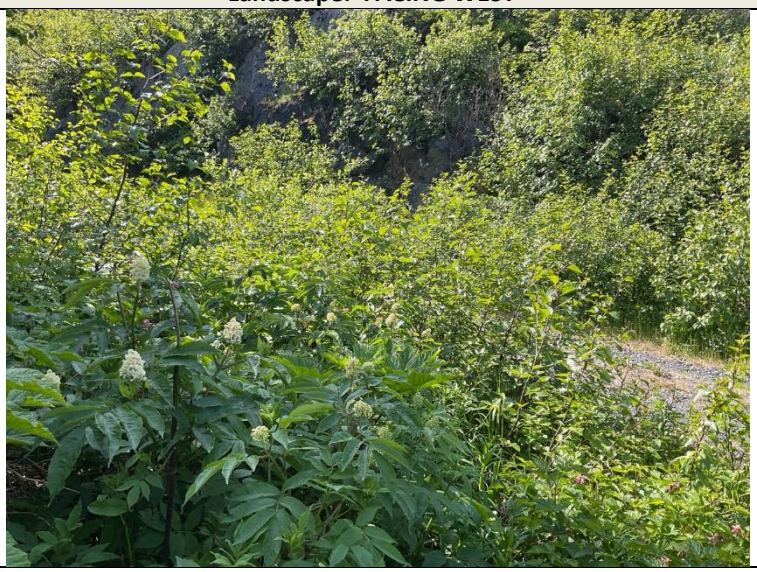


Photo Type: PP124	Location Description: 59.756104, -150.85654	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP125	Location Description: 59.756073, -150.85642	Landscape: FACING NORTH

Landscape: FACING EAST

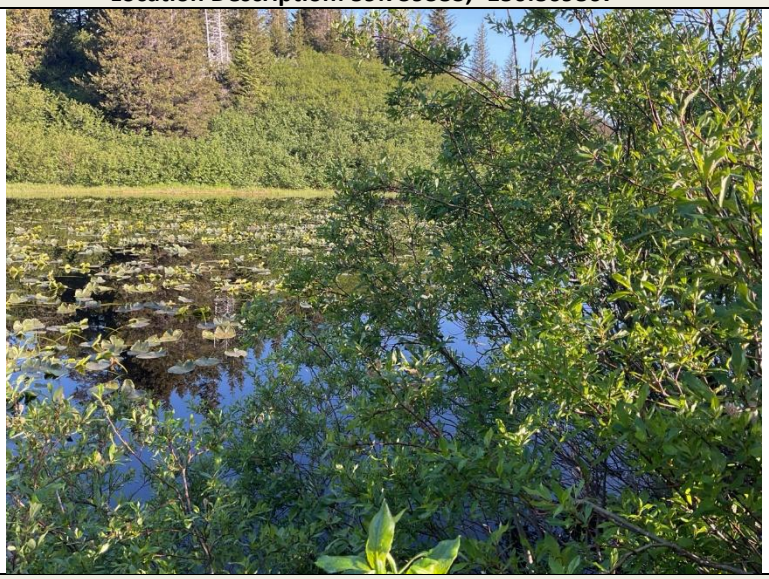
Landscape: FACING WEST

Photo Type: PP126	Location Description: 59.738226, -150.867534	Landscape: FACING NORTH

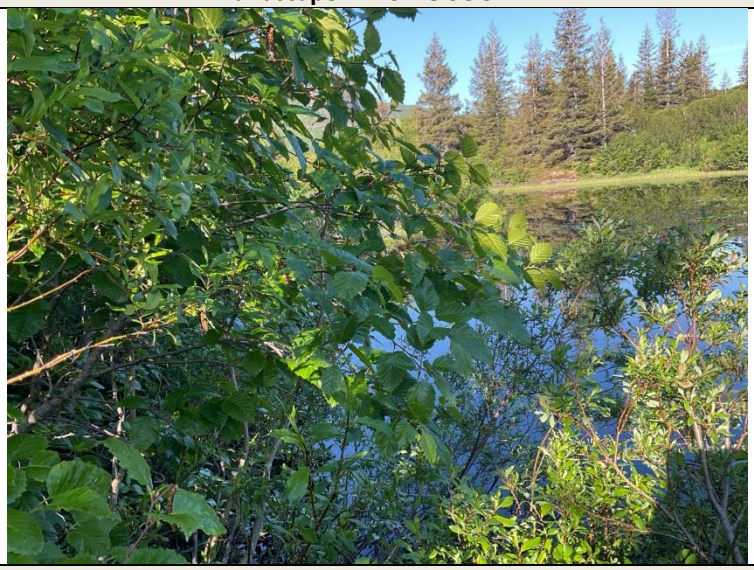
Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP127	Location Description: 59.739383, -150.869867	Landscape: FACING NORTH



Landscape: FACING SOUTH



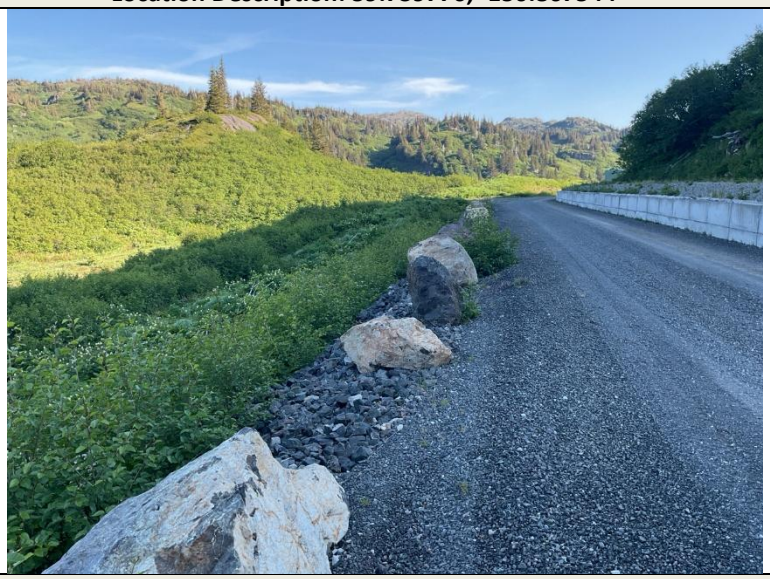
Landscape: FACING WEST

Photo Type: PP128	Location Description: 59.73934, -150.869785	Landscape: FACING NORTH

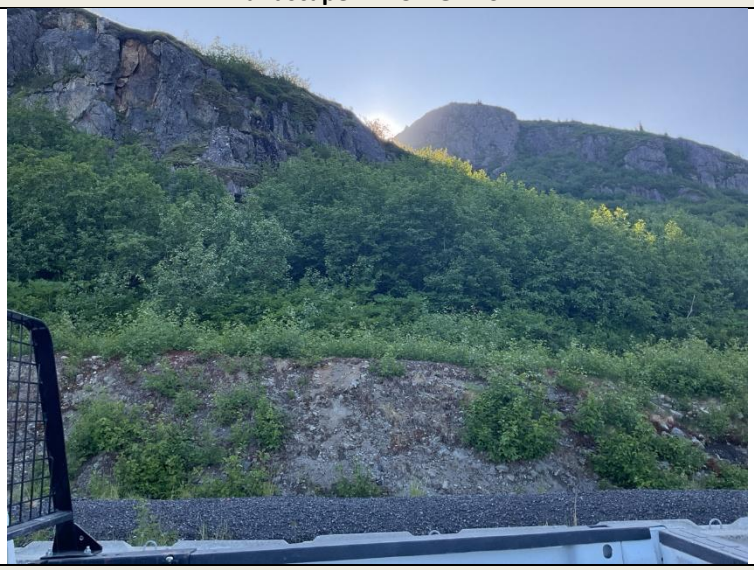
Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP129	Location Description: 59.739776, -150.867544	Landscape: FACING NORTH



Landscape: FACING EAST



Landscape: FACING WEST

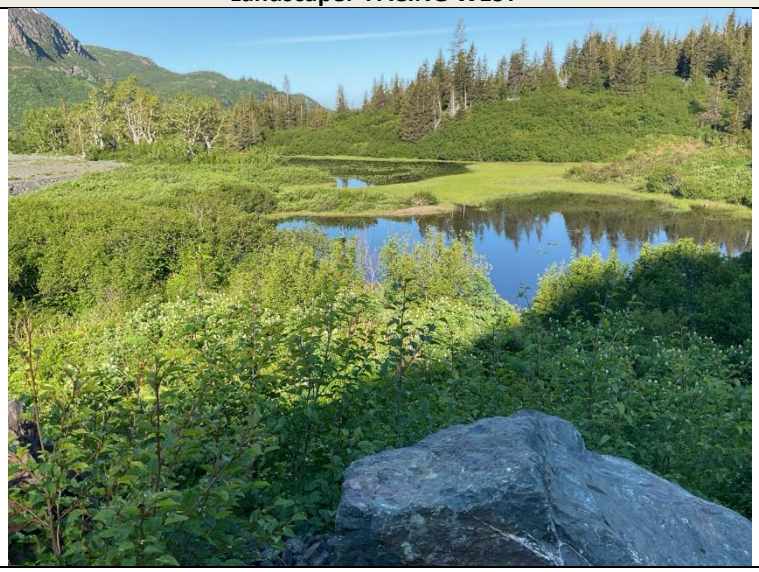
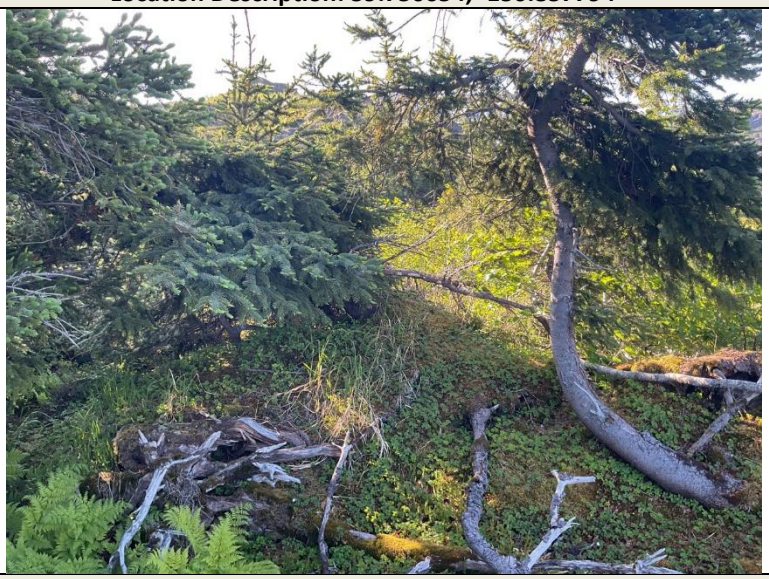


Photo Type: PP130	Location Description: 59.750827, -150.858387	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP131	Location Description: 59.750654, -150.857794	Landscape: FACING EAST



Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP132	Location Description: 59.750499, -150.857554	Landscape: FACING EAST

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP133	Location Description: 59.750451, -150.857348	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP134	Location Description: 59.750141, -150.856874	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

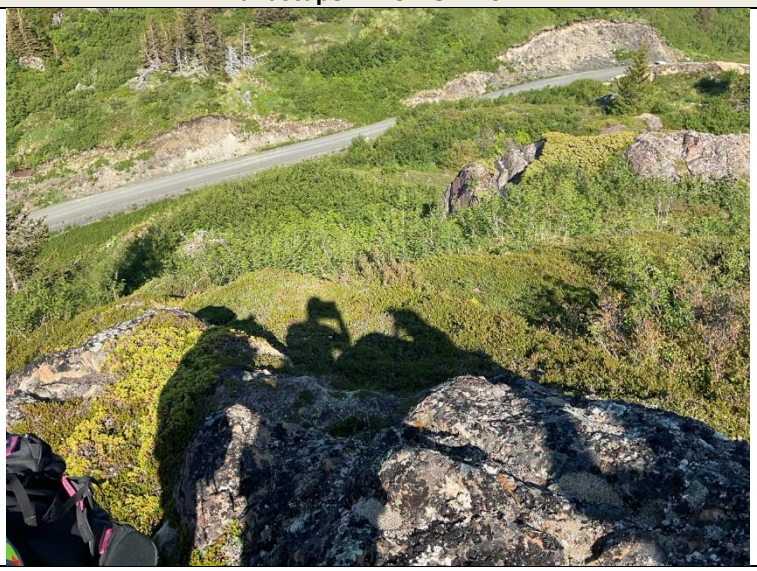


Photo Type: PP135	Location Description: 59.750148, -150.856528	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP136	Location Description: 59.750917, -150.857427	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP137	Location Description: 59.749854, -150.858692	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP138	Location Description: 59.74989, -150.858929	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP139	Location Description: 59.749572, -150.85943	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP140	Location Description: 59.749672, -150.859914	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP141	Location Description: 59.750067, -150.860419	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP142	Location Description: 59.751642, -150.859413	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP143	Location Description: 59.752157, -150.860074	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP144	Location Description: 59.752341, -150.860553	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP145	Location Description: 59.75292, -150.861208	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP146	Location Description: 59.753636, -150.862801	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP147	Location Description: 59.754339, -150.859315	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP148	Location Description: 59.75457, -150.860511	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP149	Location Description: 59.753523, -150.871367	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP150	Location Description: 59.75361, -150.871842	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP151	Location Description: 59.753117, -150.872969	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP152	Location Description: 59.751975, -150.906277	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP153	Location Description: 59.752011, -150.906398	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

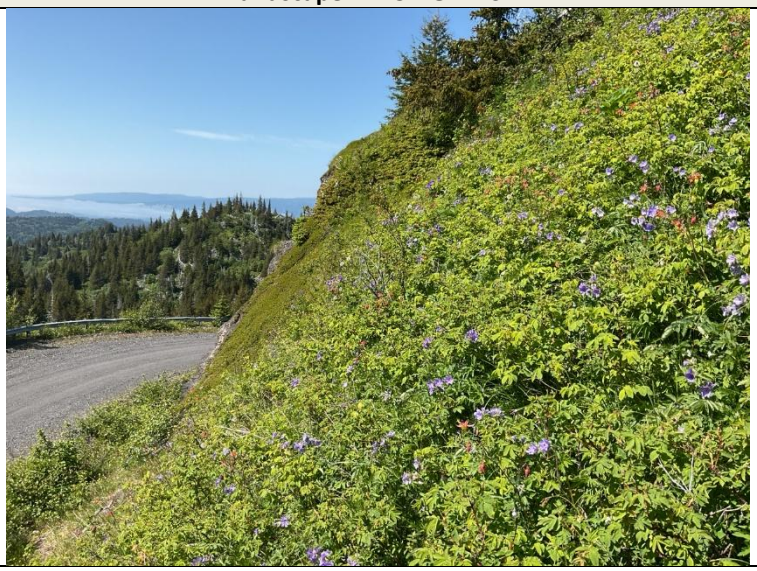
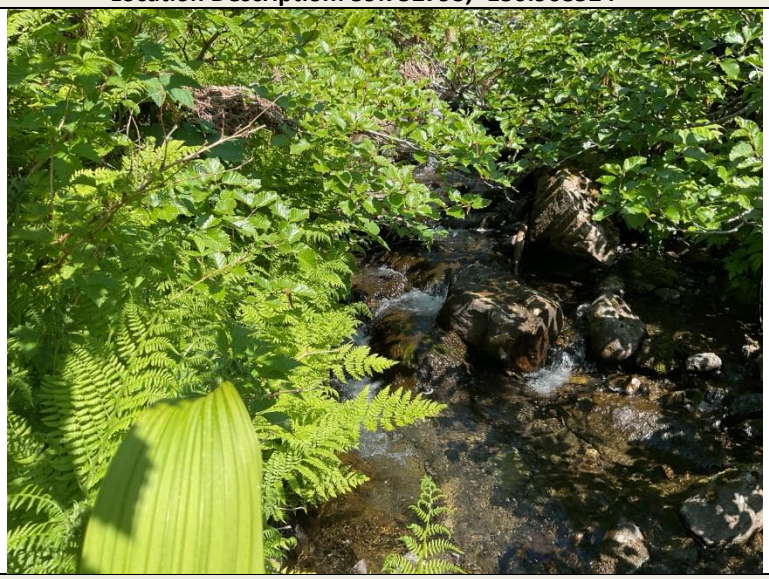


Photo Type: PP154	Location Description: 59.751858, -150.906628	Landscape: FACING EAST

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP155	Location Description: 59.752793, -150.908524	Stream: FACING UPSTREAM



Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

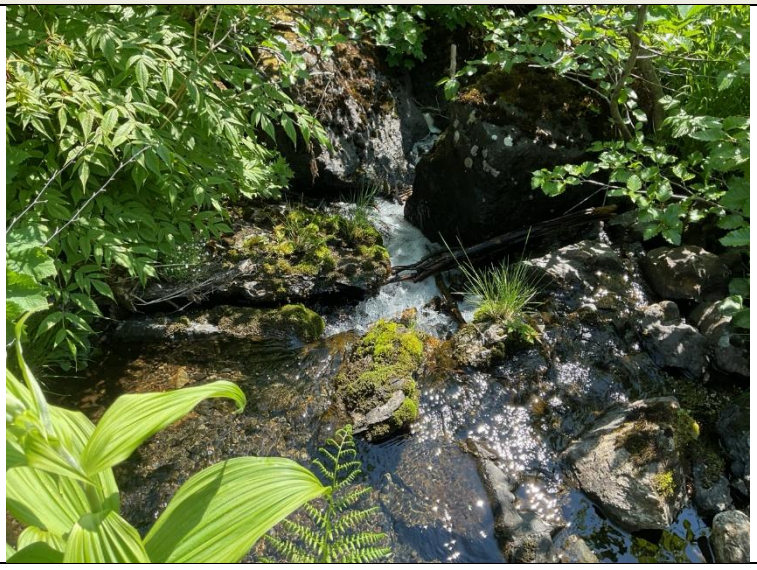


Photo Type: PP156	Location Description: 59.753495, -150.911845	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP157	Location Description: 59.755667, -150.917352	Landscape: FACING NORTH

Landscape: FACING EAST

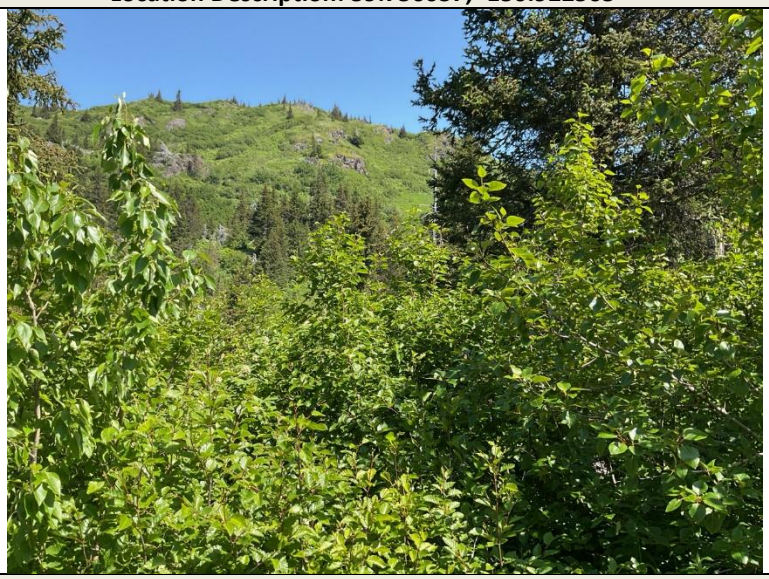
Landscape: FACING SOUTH

Photo Type: PP158	Location Description: 59.756038, -150.920205	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP159	Location Description: 59.756037, -150.922565	Landscape: FACING EAST



Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP160	Location Description: 59.756057, -150.924095	Landscape: FACING NORTH

Landscape: FACING WEST

GROUND COVER

Photo Type: PP161	Location Description: 59.755248, -150.928735	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP162	Location Description: 59.755745, -150.928595	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP162b	Location Description: 59.755905, -150.929917	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP163	Location Description: 59.757465, -150.935095	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP164	Location Description: 59.757291, -150.935219	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP165	Location Description: 59.753347, -150.941424	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP166	Location Description: 59.755793, -150.944104	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP167	Location Description: 59.754909, -150.943923	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP168 **Location Description: 59.754866, -150.944038**

Photos not captured. Field notes for same stream as PP167.

Photo Type: PP169	Location Description: 59.756322, -150.943925	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP170	Location Description: 59.757211, -150.944449	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP171	Location Description: 59.757207, -150.944744	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP172	Location Description: 59.764262, -150.959811	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING SOUTH

Photo Type: PP173	Location Description: 59.765064, -150.95972	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP174	Location Description: 59.765354, -150.961591	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP175	Location Description: 59.765816, -150.961451	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP176	Location Description: 59.766129, -150.958964	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP177	Location Description: 59.767614, -150.959512	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP178	Location Description: 59.768375, -150.959924	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP179	Location Description: 59.768635, -150.960813	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP180	Location Description: 59.768593, -150.961846	Landscape: FACING NORTH

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP181	Location Description: 59.768624, -150.962101	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP182	Location Description: 59.768562, -150.962972	Stream: FACING UPSTREAM

Stream: FACING DOWNSTREAM

Stream: FACING ACROSS

Photo Type: PP183	Location Description: 59.768617, -150.963114	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP184	Location Description: 59.767943, -150.963454	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP185	Location Description: 59.768092, -150.966015	Landscape: FACING EAST

Landscape: FACING SOUTH

Landscape: FACING WEST

Photo Type: PP186	Location Description: 59.768417, -150.966497	Landscape: FACING NORTH

Landscape: FACING EAST

Landscape: FACING WEST

Photo Type: PP187	Location Description: 59.76356, -150.95987	Landscape: FACING EAST

Landscape: FACING SOUTH

Landscape: FACING WEST

APPENDIX C-3 ALL OBSERVED PLANT SPECIES

Scientific Name	Common Name	Indicator Status
Achillea millefolium	Common Yarrow	FACU
Aconitum delphiniifolium	Larkspur-Leaf Monkshood	FAC
Alnus incana	Speckled Alder	FAC
Alnus viridis	Sitka Alder	FAC
Angelica lucida	Seacoast Angelica	FACU
Artemisia biennis	Biennial Wormwood	FAC
Artemisia tilesii	Tilesius' Wormwood	FACU
Athyrium cyclosorum	Western Lady Fern	FAC
Calamagrostis canadensis	Bluejoint	FAC
Campanula rotundifolia	Bluebell-of-Scotland	UPL
Carex aquatilis	Leafy Tussock Sedge	OBL
Carex macrochaeta	Alaska Long-Awn Sedge	FACW
Carex microchaeta	Alpine-Tundra Sedge	FAC
Carex pluriflora	Several-Flower Sedge	OBL
Castilleja unalaschcensis	Alaska Indian-Paintbrush	FAC
Chamaenerion angustifolium	Narrow-Leaf Fireweed	FACU
Cornus suecica	Dwarf Bog Bunchberry	FAC
Deschampsia caespitosa	Tufted Hair Grass	FAC
Empetrum nigrum	Black Crowberry	FAC
Epilobium palustre	Marsh Willowherb	OBL
Equisetum arvense	Field Horsetail	FAC
Equisetum hyemale	Tall Scouring-Rush	FACW
Equisetum pratense	Meadow Horsetail	FACW
Eriophorum angustifolium	Tall Cotton-Grass	OBL
Eriophorum vaginatum	Tussock Cotton-Grass	FACW
Eurybia sibirica	Siberian Wood-Aster	FAC
Geranium erianthum	Woolly Crane's-Bill	FACU
Geum macrophyllum	Large-Leaf Avens	FAC
Gymnocarpium dryopteris	Northern Oak Fern	FACU
Heracleum maximum	American Cow-Parsnip	FACU
Iris setosa	Beach-Head Iris	FAC
Lepidium perfoliatum	Clasping Pepperwort	UPL
Lupinus arcticus	Arctic Lupine	FACU
Maianthemum dilatatum	false lily of the valley	FAC
Oplopanax horridus	Devil's-Club	FACU
Parnassia palustris	Marsh Grass-of-Parnassus	FACW
Petasites frigidus	Arctic Sweet-Colt's-Foot	FACW
Picea glauca	White Spruce	FACU
Plantago lanceolata	English Plantain	FACU
Platanthera aquilonis	Bog Orchid	FACW
Poa pratensis	Kentucky Blue Grass	FACU

Polemonium acutiflorum	Tall Jacob's-Ladder	FAC
Pyrola asarifolia	Pink Wintergreen	FACU
Rubus arcticus	Northern Blackberry	FAC
Rubus pedatus	Strawberry-Leaf Raspberry	FAC
Salix alaxensis	Felt-Leaf Willow	FAC
Salix barclayi	Barclay's Willow	FAC
Salix glauca	Gray-Leaf Willow	FAC
Salix pulchra	Diamond-Leaf Willow	FACW
Salix sitchensis	Sitka Willow	FAC
Sambucus racemosa	red elderberry	FACU
Sanguisorba canadensis	Canadian Burnet	FACW
Solidago simplex	Mt. Albert Goldenrod	UPL
Sorbus scopulina	Cascade Mountain-Ash	FACU
Spiraea stevenii	Steven's Meadowsweet	FACU
Swertia perennis	Felwort	FACW
Trichophorum caespitosum	Tufted Leafless-Bulrush	OBL
Trientalis europaea	Arctic Starflower	FACU
Vaccinium uliginosum	Alpine Blueberry	FAC
Vaccinium vitis-idaea	Northern Mountain-Cranberry	FAC
Veratrum viride	American False Hellebore	FAC
Viola palustris	Alpine-Marsh Violet	FACW
Andromeda polifolia	bog rosemary	FACW
Arabis lyrate	rockcress	FACU
Aruncus dioicus	goat's beard	UPL
Caltha palustris	marsh marigold	OBL
Carex bigeloeii	Bigelow's sedge	FAC
Claytonia spp.	spring beauty	
Cornus alba	white dogwood	FAC
Dryopteris expansa	spreading wood fern	FACU
Epilobium Spp.	willowherb	
Festuca rubra	red fescue	FAC
Fritillaria camschatcensis	chocolate lily	FAC
Galium boreale	northern bedstraw	FACU
Geocaulon lividum	false toadflax	FACU
Hedysarum spp.	sweetvetch	
Lathyrus japonicus	beach pea	FAC
Lycopus uniflorus	Northern bugleweed	OBL
Menziesia ferruginea	false azalea	FACU
Picea x lutzii	hybrid spruce	FACU
Populus balsamifera	balsam poplar	FACU
Ribes laxiflorum	trailing black currant	FACU
Ribes Triste	redcurrant	FAC
Rubus spectabilis	salmonberry	FACU
Salix ovalifolia	oval-leaf willow	FAC

Salix scouleriana	mountain willow	FAC
Sedum lanceolatum	spearleaf stonecrop	UPL
Streptopus amplexifolius	watermelon berry	FACU
Taraxacum officinale	common dandelion	FACU
Viola langsdorffii	Aleutian violet	UPL