WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 101

Project: Tetchaket RD	Date: 6/1/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRE/ALO
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57455	Watershed: Rock Creek HUC 10
Longitude: - -149.84166	Location Notes:
Elevation (ft): 398	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	NO

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: 50% of Total Cover: 20% of Total Cover:

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. PUPTRE	FU	N	7	9.			
2. RHOGIO	F	Y	30	10.			
3. VACVIT	F	N	10	11.			
4. LARLAR	FW	N	3	12.			
5. PICMAR	FW	Y	15	13.			
6. SAL. BEB	F	N	10	14.			
7. RUBUS UVAURSI	FU	N	3	15.			

Total Shrub Cover: 78 50% of Total Cover: 39 20% of Total Cover: 15.6

Herbaceous Stratum	IND	DOM	Cover	13.			
1. CORCAN	FU	N	T	14.			
2. FESALT	F	Y	30	15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 30 50% of Total Cover: 15 20% of Total Cover: 6

1.Open Water 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Soil E W

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 18	x 2 =	36
FAC species 80	x 3 =	240
FACU species 10	x 4 =	40
UPL species	x 5 =	
Column Totals: 108 (A)		316 (B)

Prevalence Index = B/A = 2.93

Hydrophytic Vegetation Indicators:

YES Dominance Test is >50%

YES Prevalence Index is ≤3.0

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

___ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

BSW

Cowardin Code: U

HGM Classification: NA

Landform: terrace

Local Relief: flat

Microtopography: flat | Slope: — | Aspect: —

SOIL

Plot No: ST 101

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
1-0	O1									
0-2	A1	10YR4/2	100					-	SIL	
2-20	Bw	10YR4/3	100					-	SAL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- N Other (explain in remarks)

Hydric Soils Present?	NO
NRCS Drainage Class:	MWD
Depth of Organic Soils:	1
Restrictive Layer Type:	—
Restrictive Layer Depth:	—

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST101
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Black Spruce Woodland
Latitude (DD)	64.574546
Longitude (DD)	-149.841663

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST102
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Mixed Forest
Latitude (DD)	64.575559
Longitude (DD)	-149.839661

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: SW

PHOTO REPORT

Plot Number	ST103
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575214
Longitude (DD)	-149.835764

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: NW

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 104

Project: Totchaket RCS	Date: 6/1/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe / ALo
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57494	Watershed: Rock Creek HUC10
Longitude: - 149.83147	Location Notes:
Elevation (ft): 428	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	NO

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. PICMAR	FW	Y	60	3.			
2. POPTRE	FU	N	3	4.			

Total Tree Cover: 63 — 50% of Total Cover: 31.5 — 20% of Total Cover: 12.6

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. VACVIT	F	Y	35	9.			
2. SALBEB	F	N	5	10.			
3. RHOGRO	F	N	3	11.			
4. SMECAN	FU	N	1	12.			
5.				13.			
6.				14.			
7.				15.			

Total Shrub Cover: 43 — 50% of Total Cover: 21.5 — 20% of Total Cover: 8.6

Herbaceous Stratum	IND	DOM	Cover	13.			
1. FESALT	F	Y	3	14. HYSP	B	-	T
2. GEOLIV	FU	N	T	15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 3 — 50% of Total Cover: 1.5 — 20% of Total Cover: .6

1. Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 60	x 2 =	120
FAC species 46	x 3 =	138
FACU species 3	x 4 =	12
UPL species	x 5 =	
Column Totals: 109 (A)		270 (B)

Prevalence Index = B/A = 2.48

Hydrophytic Vegetation Indicators:

Yes — Dominance Test is >50%

Yes — Prevalence Index is ≤3.0

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

____ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

OBSF

Cowardin Code: U

HGM Classification: N/a

Landform: mound

Local Relief: convex

Microtopography: flat | Slope: 1 | Aspect: –

SOIL

Plot No: ST 104

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
1-0	Oi									
0-7	AB	10YR 4/3	100					—	SIL	
7-17	Bw	10YR 5/3	100					—	SIL	Frozen

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)[4]
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surfaces (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depression (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Alaska Color Change (TA4) Give details of color change
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox with 2.5Y Hue
- ___ Alaska Gleyed w/o Hue 5Y or Redder Underlying
- ___ AA Positive (mineral soil, 60% of horizon 4 inches thick)
- ___ Ponded/Flooded/High Water Table (12 inches or higher)
- ___ Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	MWD
Depth of Organic Soils:	1
Restrictive Layer Type:	—
Restrictive Layer Depth:	—

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

N ___ Other (explain in 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) (w/in 12")
- ___ Dry-Season Water Table (C2)**
- ___ Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- ___ Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): _____

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST104
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Black Spruce Forest
Latitude (DD)	64.574935
Longitude (DD)	-149.831472

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST105
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575141
Longitude (DD)	-149.819692

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST106
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574811
Longitude (DD)	-149.811086

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 107

Project: Totchaket Rd	Date: 6/1/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe / ALo
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57523	Watershed: Rock Creek HUC10
Longitude: - 149.80760	Location Notes:
Elevation (ft): 404	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	NO

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: 50% of Total Cover: 20% of Total Cover:

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. POTTRE	FU	Y	15	9.			
2. VACUIT	F	Y	15	10.			
3. RHOGRO	F	N	T	11.			
4. ROSACI	FU	N	T	12.			
5. VACULI	F	N	8	13.			
6.				14.			
7.				15.			

Total Shrub Cover: 43 50% of Total Cover: 21.5 20% of Total Cover: 8.6

Herbaceous Stratum	IND	DOM	Cover	13.			
1. FESALT	F	Y	10	14.			
2. EQUSCI	F	N	T	15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 10 50% of Total Cover: 5 20% of Total Cover: 2

1.Open Water — 2. Bare ground 35

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

burn area
bare ground.

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: 67 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 38	x 3 =	134
FACU species 15	x 4 =	80
UPL species	x 5 =	
Column Totals: 53 (A)		194 (B)

Prevalence Index = B/A = 3.66

Hydrophytic Vegetation Indicators:

YES Dominance Test is >50%

NO Prevalence Index is ≤3.0

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

____ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

DSSR

Cowardin Code: U

HGM Classification: N4

Landform: lowland

Local Relief: concave

Microtopography:	Slope:	Aspect:
mod.	1	E-90

SOIL

Plot No: ST 107

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
2-0	Oi									
0-3	AB	10YR 4/1	100					—	Sil	
3-18	Bw	10YR 4/2	100					—	Sil	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Hydric Soils Present?	NO
NRCS Drainage Class:	MWD
Depth of Organic Soils:	2
Restrictive Layer Type:	—
Restrictive Layer Depth:	—

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

- N Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST107
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575237
Longitude (DD)	-149.807596

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: NW

Photo Type: Vegetation Direction: SE

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 108

Project:	Date: 6/1/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe / ALo
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57532	Watershed: Rock Creek HUC 10
Longitude: - 149.79642	Location Notes:
Elevation (ft): 428	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	NO
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	NO

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: 50% of Total Cover: 20% of Total Cover:

Sapling/Shrub Stratum	IND	DOM	Cover				
1. POPTRE	FU	Y	60	8. SALREB	F	N	T
2. RHOGRO	F	N	6	9.			
3. VACVIT	F	Y	30	10.			
4. PICMAR	FW	N	T	11.			
5. ROSACI	FU	N	T	12.			
6. BETNEO	FU	N	15	13.			
7. LINBOR	FU	N	T	14.			
				15.			

Total Shrub Cover: 111 50% of Total Cover: 55.5 20% of Total Cover: 22.2

Herbaceous Stratum	IND	DOM	Cover				
1. EQUSCI	FU	N	T	13.			
2. CIHANG	FU	N	T	14.			
3.				15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 50% of Total Cover: 20% of Total Cover:

1. Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 36	x 3 =	108
FACU species 75	x 4 =	300
UPL species	x 5 =	
Column Totals: 111 (A)		408 (B)

Prevalence Index = B/A = 3.68

Hydrophytic Vegetation Indicators:

NO Dominance Test is >50%

NO Prevalence Index is ≤3.0

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

____ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

DSGR

Cowardin Code: U

HGM Classification: NA

Landform: hillside

Local Relief: Concave

Microtopography:	Slope:	Aspect:
flat	2	NO

SOIL

Plot No: ST 10 0

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
1-0	Oi									
0-1	A	10YR2/2	100					—	SIL	
1-16	Bw	10YR4/2	60		5YR4/6	40		-	SIL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Hydric Soils Present?	NO
NRCS Drainage Class:	MWD
Depth of Organic Soils:	1
Restrictive Layer Type:	—
Restrictive Layer Depth:	—

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): _____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST108
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575321
Longitude (DD)	-149.796421

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: NW

Photo Type: Vegetation Direction: SE

PHOTO REPORT

Plot Number	ST109
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574757
Longitude (DD)	-149.791355

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 110

Project: Tochatat	Date: 6/1/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe / ALu
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57486	Watershed: Rich Creek HUC 10
Longitude: - 149.78821	Location Notes:
Elevation (ft): 443	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	YES
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	YES
Remarks:				**Is the Sampled Area within a Wetland?**	YES

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: 50% of Total Cover: 20% of Total Cover:

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. VACULI	F	Y	50	9.			
2. RHOGRO	F	Y	20	10.			
3. SALPUL	FW	N	5	11.			
4. BETNAN	F	N	T	12.			
5. BETNEO	FU	N	T	13.			
6. ROSACI	FU	N	T	14.			
7. SALARB	FW	N	T	15.			

Total Shrub Cover: 75 50% of Total Cover: 37.5 20% of Total Cover: 15

Herbaceous Stratum	IND	DOM	Cover	13.			
1. CALCAN	F	Y	7	14.			
2. ERIVAG	FW	Y	3	15.			
3. RUBCHA	FW	N	1	16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 10 50% of Total Cover: 5 20% of Total Cover: 2

1.Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 8	x 2 =	16
FAC species 77	x 3 =	231
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 85 (A)		247 (B)

Prevalence Index = B/A = 2.91

Hydrophytic Vegetation Indicators:

Yes Dominance Test is >50%

Yes Prevalence Index is ≤3.0

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

___ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

BOS - LST

Cowardin Code: PSS1B

HGM Classification: flat

Landform: Lowland

Local Relief: Concave

Microtopography: Shrubs

Slope: —

Aspect: —

AC

SOIL

Plot No: ST 110

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-8	Oe	Black	100							Frozen @ 8"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- ~ Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4]
- ~ Black Histic (A3)
- ~ Hydrogen Sulfide (A4)
- ~ Thick Dark Surfaces (A12)
- ~ Alaska Gleyed (A13)
- ~ Alaska Redox (A14)
- ~ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- ~ Depleted Below Dark Surface (A11)
- ~ Depleted Matrix (F3)
- ~ Redox Dark Surface (F6)
- ~ Depleted Dark Surface (F7)
- ~ Redox Depression (F8)
- ~ Red Parent Material (F21)
- ~ Very Shallow Dark Surface (F22)
- ~ Alaska Color Change (TA4) Give details of color change
- ~ Alaska Alpine Swales (TA5)
- ~ Alaska Redox with 2.5Y Hue
- ~ Alaska Gleyed w/o Hue 5Y or Redder Underlying
- ~ AA Positive (mineral soil, 60% of horizon 4 inches thick)
- Y Ponded/Flooded/High Water Table (12 inches or higher)
- ~ Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	YES
NRCS Drainage Class:	VPD
Depth of Organic Soils:	8
Restrictive Layer Type:	Permafrost
Restrictive Layer Depth:	8

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- Y 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) (w/in 12")
- ~ Dry-Season Water Table (C2)**
- ~ Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2)
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- ~ FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes X No ___ Depth (inches): 4

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 2

Episaturation ___ Endosaturation ___

Water Source: Ground Water

Wetland Hydrology Present? YES

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST110
Wetland Status	Wetland
Plot Type	WD: Wetland Determination
Plot Date	6/1/2022
NWI Classification	PSS1B
HGM	Flat
Vegetation Type	Open Low Willow Shrub
Latitude (DD)	64.574863
Longitude (DD)	-149.788214

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

PHOTO REPORT

Plot Number	ST111
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574667
Longitude (DD)	-149.787492

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST112
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574717
Longitude (DD)	-149.785773

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 113

Project: Tetlin Rd	Date: 6/11/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe / ALo
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57484	Watershed: Rock Creek HUC 10
Longitude: - 149.78146	Location Notes:
Elevation (ft): 445	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	NO

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: **50% of Total Cover:** **20% of Total Cover:**

Sapling/Shrub Stratum	IND	DOM	Cover				
1. POPBAL	FU	–	T	8. PICMAR	FW	–	T
2. SALBEB	F	Y	50	9. LINBOR	FU	–	T
3. POPTRE	FU	N	5	10. BETNEO	FU	–	T
4. ROSACI	FU	N	6	11.			
5. VACVIT	F	N	15	12.			
6. RHOGRO	F	N	5	13.			
7. ~~DAS FRU~~	F	–	T	14.			

Total Shrub Cover: 81 **50% of Total Cover:** 40.5 **20% of Total Cover:** 16.2

Herbaceous Stratum	IND	DOM	Cover				
1. CORCAN	FU	Y	3	13.			
2. CALCAN	F	Y	5	14.			
3.				15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 8 **50% of Total Cover:** 4 **20% of Total Cover:** 1.6

1.Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Burned area

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: 67 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 75	x 3 =	225
FACU species 14	x 4 =	56
UPL species	x 5 =	
Column Totals: 89 (A)		281 (B)

Prevalence Index = B/A = 3.16

Hydrophytic Vegetation Indicators:

YES Dominance Test is >50%

NO Prevalence Index is ≤3.0

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

____ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

DSSR

Cowardin Code: U

HGM Classification: NA

Landform: hilltop

Local Relief: convex

Microtopography: flat | Slope: - | Aspect: -

QL

SOIL

Plot No: ST 113

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
2-0	Oi									
0-4	A	10YR3/2						—	Sil	Charcoal
4-8"	Bw	10YR3/2						—	Sil	Black streaking

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Moist soils from perched seasonal frost

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)[4]
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surfaces (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depression (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Alaska Color Change (TA4) Give details of color change
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox with 2.5Y Hue
- ___ Alaska Gleyed w/o Hue 5Y or Redder Underlying
- ___ AA Positive (mineral soil, 60% of horizon 4 inches thick)
- ___ Ponded/Flooded/High Water Table (12 inches or higher)
- ___ Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	
Depth of Organic Soils:	2
Restrictive Layer Type:	
Restrictive Layer Depth:	—

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N 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) (w/in 12")
- ___ Dry-Season Water Table (C2)**
- ___ Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- ___ Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): _____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST113
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574848
Longitude (DD)	-149.781463

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 117

Project: Tatchek Rd	Date: 6/2/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRE/ALO
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57504	Watershed: Sawmill Slough HUC 10
Longitude: - 149.51260	Location Notes:
Elevation (ft): 501	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. POPTRE	FU	Y	5	3.			
2. PICMAR	FW	Y	20	4.			

Total Tree Cover: 25 — 50% of Total Cover: 12.5 — 20% of Total Cover: 5

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. BETNEO	FU	N	T	9.			
2. VACVIT	F	Y	40	10.			
3. RHOGRO	F	N	5	11.			
4. PICMAR	FW	N	T	12.			
5. ALNVIR	F	N	T	13.			
6. SHECAN	FU	N	T	14.			
7.				15.			

Total Shrub Cover: 45 — 50% of Total Cover: 22.5 — 20% of Total Cover: 9

Herbaceous Stratum	IND	DOM	Cover	13.			
1. ORTSEC	FU	N	T	14.			
2.				15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: — 50% of Total Cover: — 20% of Total Cover:

1. Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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: 67 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 20	x 2 =	40
FAC species 45	x 3 =	135
FACU species 5	x 4 =	20
UPL species	x 5 =	
Column Totals: 70 (A)		195 (B)

Prevalence Index = B/A = 2.79

Hydrophytic Vegetation Indicators:

Yes — Dominance Test is >50%

Yes — Prevalence Index is ≤3.0

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

____ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

OMF

Cowardin Code: U

HGM Classification: N/A

Landform: mound

Local Relief: Convex

Microtopography:	Slope:	Aspect:
flat	3	

DC

SOIL

Plot No: ST 114

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
1-0	O									
0-13	AB	10YR 4/4	100					—	Sil	
13-18	BW	10YR 4/3	100					—	Sal	very sandy

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	NO
NRCS Drainage Class:	MW D
Depth of Organic Soils:	1
Restrictive Layer Type:	—
Restrictive Layer Depth:	—

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST114
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Mixed Forest
Latitude (DD)	64.575039
Longitude (DD)	-149.512605

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST115
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574491
Longitude (DD)	-149.535909

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: SE

Photo Type: Vegetation Direction: SW

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 114

Project: Totchchet Rd	Date: 6/2/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe / ALw
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57520	Watershed: Lunch Lake HUC 10
Longitude: - 149.55400	Location Notes:
Elevation (ft): 486	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	2ndary Wetland Hydrology Present?	YES
Remarks:				**Is the Sampled Area within a Wetland?**	NO

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: 50% of Total Cover: 20% of Total Cover:

Sapling/Shrub Stratum	IND	DOM	Cover				
1. VACVIT	FU	Y	10	8. ARCUVA	UP	N	T
2. ROSACI	FU	–	T	9.			
3. SALBEB	FU	–	3	10.			
4. PICMAR	FW	Y	15	11.			
5. BETNEO	FU	–	T	12.			
6. POPTRE	FU	–	5	13.			
7. SHECAN	FU	–	T	14.			

Total Shrub Cover: 33 50% of Total Cover: 16.5 20% of Total Cover: 6.6

Herbaceous Stratum	IND	DOM	Cover				
1. CALCAN	FU	Y	10	13.			
2. CORCAN	FU	–	T	14.			
3. PEDLAB	FW	–	T	15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 50% of Total Cover: 20% of Total Cover:

1. Open Water — 2. Bare ground 10

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

BURN

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 15	x 2 =	30
FAC species 23	x 3 =	69
FACU species 5	x 4 =	20
UPL species	x 5 =	
Column Totals: 43 (A)		119 (B)

Prevalence Index = B/A = 2.77

Hydrophytic Vegetation Indicators:

YES Dominance Test is >50%

Yes Prevalence Index is ≤3.0

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

___ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

DSSR

Cowardin Code: U

HGM Classification: NA

Landform: VALLEY

Local Relief: Concave

Microtopography:	Slope:	Aspect:
Und.	–	156

QC

SOIL

Plot No: ST 116

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
2-0	Oi									
0-16	Bw	10YR 4/2	75					—	Sil	Frozen
		10YR 3/6	25					—	Sil	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix; CS=Coated Sand Grains

Remarks: Thixotropic, no primary hydro

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	No
NRCS Drainage Class:	WPD
Depth of Organic Soils:	2
Restrictive Layer Type:	—
Restrictive Layer Depth:	—

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? ___

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source: Moist soils 12" seasonal frost

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks: thixo, not saturated

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST116
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575202
Longitude (DD)	-149.554007

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

PHOTO REPORT

Plot Number	ST117
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574737
Longitude (DD)	-149.55655

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST118
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574787
Longitude (DD)	-149.549981

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 119

Project: Tatchibot Rd	Date: 6/2/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe/ALo
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57486	Watershed: Lunch Lake Huc 10
Longitude: - 149.54402	Location Notes:
Elevation (ft): 777	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: **50% of Total Cover:** **20% of Total Cover:**

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. VACVIT	F	Y	15	9.			
2. PICMAR	FW	-	T	10.			
3. ~~BE~~ SALBEB	F	-	3	11.			
4. POPTRE	FU	Y	5	12.			
5. SHECAN	FU	-	T	13.			
6.				14.			
7.				15.			

Total Shrub Cover: 23 **50% of Total Cover:** 11.5 **20% of Total Cover:** 4.6

Herbaceous Stratum	IND	DOM	Cover	13.			
1. PEDLAB	FW	N	T	14.			
2. CALCAN	F	Y	30	15.			
3. FES ALT	F	Y	10	16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 40 **50% of Total Cover:** 20 **20% of Total Cover:** 8

1.Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 58	x 3 =	174
FACU species 5	x 4 =	20
UPL species	x 5 =	
Column Totals: 63 (A)		194 (B)

Prevalence Index = B/A = 3.08

Hydrophytic Vegetation Indicators:

Yes — Dominance Test is >50%

No — Prevalence Index is ≤3.0

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

____ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

DSSR

Cowardin Code: U

HGM Classification: n/a

Landform: Terrace

Local Relief: flat

Microtopography: flat | Slope: — | Aspect: —

QC

SOIL

Plot No: ST 119

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
2-0	Oi									
0-9	Bw	10YR 4/4	100					-	SIL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Seasonal frost

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	NO
NRCS Drainage Class:	SWPD
Depth of Organic Soils:	2
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation____ Endosaturation____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST119
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57486
Longitude (DD)	-149.544016

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

PHOTO REPORT

Plot Number	ST120
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574781
Longitude (DD)	-149.530066

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: SE

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 121

Project:	Date: 6/2/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe / ALo
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57506	Watershed: Sawmill Slough HUC 10
Longitude: - 149.52074	Location Notes:
Elevation (ft): 514	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	No
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: **50% of Total Cover:** **20% of Total Cover:**

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. VACVIT	FAC	Y	70	9.			
2. BETNEO	FAC	Y	20	10.			
3. RHOGRO	FAC	N	3	11.			
4. SALBEB	FAC	N	3	12.			
5. PICMAR	FAC	N	T	13.			
6. POPTRE	FAC	N	3	14.			
7. ALNVIR	FAC	N	T	15.			

Total Shrub Cover: 99 **50% of Total Cover:** 44.5 **20% of Total Cover:** 19.8

Herbaceous Stratum	IND	DOM	Cover	13.			
1. CHAANG	FAC	N	T	14.			
2.				15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: **50% of Total Cover:** **20% of Total Cover:**

1. Open Water | 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 76	x 3 =	228
FACU species 23	x 4 =	92
UPL species	x 5 =	
Column Totals: 99 (A)		320 (B)

Prevalence Index = B/A = 3.23

Hydrophytic Vegetation Indicators:

No — Dominance Test is >50%

No — Prevalence Index is ≤3.0

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

___ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

DSSL

Cowardin Code: U

HGM Classification: n/a

Landform: hillside

Local Relief: concave

Microtopography:	Slope:	Aspect:
VHD	2	E

SOIL

Plot No: ST 121

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
2"-0"	O;									
0"-8"	Bw	10YR 4/4	100					—	SIL	Frozen Below

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: frozen at 10" seasonal frost

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	NO
NRCS Drainage Class:	SWPD
Depth of Organic Soils:	2
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? ___

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST121
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575061
Longitude (DD)	-149.52074

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: S

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 122

Project:	Date: 6/2/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe / ALo
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64 57491	Watershed: Sawmill Slough Huc 10
Longitude: -149 50151	Location Notes:
Elevation (ft): 450	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	NO
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. PICMAR	FW	—	T	3.			
2.				4.			

Total Tree Cover: 50% of Total Cover: 20% of Total Cover:

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. ARC UVA URSI	UP	Y	20	9.			
2. VACUIT	F	—	10	10.			
3. POP TRE	FU	—	3	11.			
4. PICMAR	FW	—	T	12.			
5. SALBEB	F	Y	15	13.			
6. SHECAN	FU	—	T	14.			
7. RHOGRO	F	—	3	15.			

Total Shrub Cover: 51 50% of Total Cover: 25.5 20% of Total Cover: 10.2

Herbaceous Stratum	IND	DOM	Cover	13.			
1. SAN ANA	FU	—	T	14.			
2. ANT ELG	FU	—	T	15.			
3. PYR ASA	FU	—	T	16.			
4. TOF COC	F	—	T	17.			
5. Lad. sibiricum	F	—	T	18.			
6. CYP 11				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 50% of Total Cover: 20% of Total Cover:

1. Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 28	x 3 =	84
FACU species 3	x 4 =	12
UPL species 20	x 5 =	100
Column Totals: 51 (A)		196 (B)

Prevalence Index = B/A = 3.84

Hydrophytic Vegetation Indicators:

No — Dominance Test is >50%

No — Prevalence Index is ≤3.0

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

___ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

DSSR

Cowardin Code: U

HGM Classification: n/a

Landform: hillside

Local Relief: concave

Microtopography:	Slope:	Aspect:
flat	2	E

SOIL

Plot No: ST 122

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	Soil Matrix %	Redox Features Type[1]	Redox Features Color	Redox Features %	Redox Features Loc[2]	Mod[3]	Texture	Horizon Comments
3-0	O									
0-10	Bw	10YR 3/4	100					-	SIL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Seasonal frost at 13"

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- N Other (explain in remarks)

Hydric Soils Present?	NO
NRCS Drainage Class:	SWPD
Depth of Organic Soils:	3
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST122
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574908
Longitude (DD)	-149.501518

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	ST123
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57546
Longitude (DD)	-149.496887

Photo Type: Vegetation Direction: E

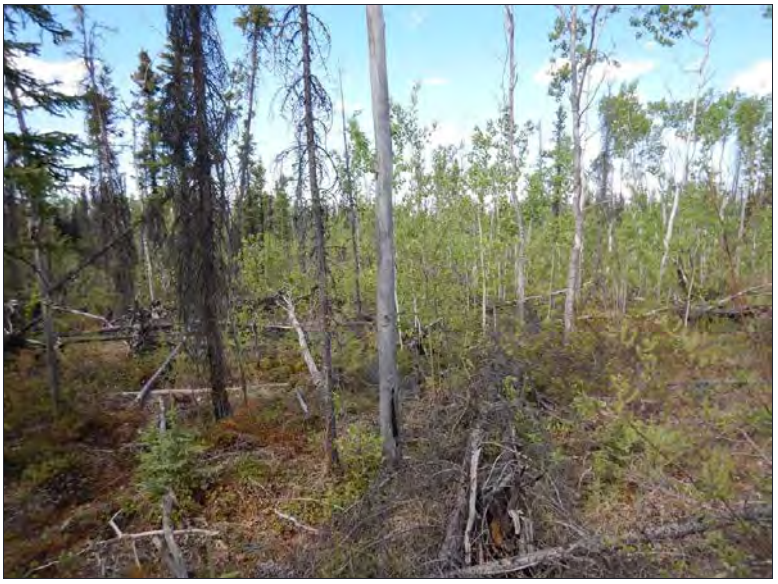

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST124
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57544
Longitude (DD)	-149.488316

Photo Type: Hydrology Direction: E

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

PHOTO REPORT

Plot Number	ST125
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575154
Longitude (DD)	-149.480881

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 126

Project: Totchaket Rd	Date: 6/3/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64 57462	Watershed: Lunch Lake HUC 10
Longitude: - 149.65915	Location Notes:
Elevation (ft): 434	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	YES
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	YES
Remarks:				**Is the Sampled Area within a Wetland?**	YES

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: **50% of Total Cover:** **20% of Total Cover:**

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. VACULI	F	Y	10	9.			
2. BETNAN	F	Y	10	10.			
3. RHOTOM	FW	–	3	11.			
4. SALPUL	FW	–	3	12.			
5. CHACAL	FW	–	3	13.			
6.				14.			
7.				15.			

Total Shrub Cover: 29 **50% of Total Cover:** 14.5 **20% of Total Cover:** 5.8

Herbaceous Stratum	IND	DOM	Cover	13.			
1. ERIVAG	FW	Y	80	14.			
2. RUBCHA	FW	–	T	15.			
3. CALCAN	F	–	T	16.			
4. CARBIG	F	–	10	17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 90 **50% of Total Cover:** 45 **20% of Total Cover:** 18

1. Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Soil S W

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 89	x 2 =	178
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 119 (A)		268 (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

OMSST

Cowardin Code: PSS1B

HGM Classification: ~~Slope~~ Flat

Landform: Swale

Local Relief: Concave

Microtopography:	Slope:	Aspect:
lg hummock	1	NE

SOIL

Plot No: ST 126

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
10.0	Oe									

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- Y Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	Yes
NRCS Drainage Class:	VPD
Depth of Organic Soils:	10
Restrictive Layer Type:	RM mafic
Restrictive Layer Depth:	10

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- Y Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- Y Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2)
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Episaturation ___ Endosaturation ___

Water Source: G.w.t precip

Wetland Hydrology Present? YES

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST126
Wetland Status	Wetland
Plot Type	WD: Wetland Determination
Plot Date	6/3/2022
NWI Classification	PSS1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.574626
Longitude (DD)	-149.659145

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: S

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST127
Wetland Status	Wetland
Plot Type	FVP: Field Verification Point
Plot Date	6/3/2022
NWI Classification	PSS1B
HGM	Slope
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.57463
Longitude (DD)	-149.654705

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: S

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST128
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574638
Longitude (DD)	-149.65413

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 129

Project: Tetchchet Rd	Date: 6/3/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SLe / ALo
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64 57504	Watershed: Lunch Lake HUC10
Longitude: - 149 63864	Location Notes: material site
Elevation (ft): 501	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	No
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. POPTRE	FU	Y	7	3.			
2. PICMAR	FW	Y	3	4.			

Total Tree Cover: 10 — 50% of Total Cover: 5 — 20% of Total Cover: 2

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. POPTRE	FU	Y	50	9.			
2. BETNEO	FU	–	20	10.			
3. VACVIT	F	Y	40	11.			
4. PICMAR	FW	–	3	12.			
5. RHOGRO	F	–	3	13.			
6. SALBEB	F	–	3	14.			
7. ALNUIR	F	–	3	15.			

Total Shrub Cover: 122 — 50% of Total Cover: 61 — 20% of Total Cover: 24.4

Herbaceous Stratum	IND	DOM	Cover	13.			
1.				14.			
2.				15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: — 50% of Total Cover: — 20% of Total Cover:

1. Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 6	x 2 =	12
FAC species 49	x 3 =	147
FACU species 77	x 4 =	308
UPL species	x 5 =	
Column Totals: 132 (A)		467 (B)

Prevalence Index = B/A = 3.54

Hydrophytic Vegetation Indicators:

No — Dominance Test is >50%

No — Prevalence Index is ≤3.0

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

___ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

WMF

Cowardin Code: U

HGM Classification: n/a

Landform: Terrace

Local Relief: flat

Microtopography: flat — **Slope:** – — **Aspect:** –

SOIL

Plot No: ST 129

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	Soil Matrix %	Redox Features Type[1]	Redox Features Color	Redox Features %	Redox Features Loc[2]	Mod[3]	Texture	Horizon Comments
3-0	Oi									
0-17	Bw	10YR 3/3	100					—	SAL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	MWD
Depth of Organic Soils:	3
Restrictive Layer Type:	—
Restrictive Layer Depth:	—

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

N Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST129
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Woodland Mixed Forest
Latitude (DD)	64.575033
Longitude (DD)	-149.638638

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	ST130
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Mixed Forest
Latitude (DD)	64.574666
Longitude (DD)	-149.631949

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: NW

PHOTO REPORT

Plot Number	ST131
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Black Spruce Forest
Latitude (DD)	64.574508
Longitude (DD)	-149.618062

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: S

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 132

Project: Totchekt Rd	Date: 6/3/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: Sle/ALo
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57551	Watershed: Lunch Lake Huc 10
Longitude: - -149.60751	Location Notes:
Elevation (ft): 468	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	NO

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: 50% of Total Cover: 20% of Total Cover:

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. VACUIT	F	Y	20	9.			
2. RIC MIAR	FW	–	T	10.			
3. POPTRE	FU	–	3	11.			
4. SALBEB	F	Y	15	12.			
5. SHECAN	FU	–	3	13.			
6.				14.			
7.				15.			

Total Shrub Cover: 41 50% of Total Cover: 20.5 20% of Total Cover: 8.2

Herbaceous Stratum	IND	DOM	Cover	13.			
1. CORCAN	FU	–	T	14.			
2. FESALT	F	Y	10	15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 10 50% of Total Cover: 5 20% of Total Cover: 2

1. Open Water — 2. Bare ground 10

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 45	x 3 =	135
FACU species 6	x 4 =	24
UPL species	x 5 =	
Column Totals: 51 (A)		159 (B)

Prevalence Index = B/A = 3.12

Hydrophytic Vegetation Indicators:

YES Dominance Test is >50%

NO Prevalence Index is ≤3.0

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

___ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

DSSR

Cowardin Code: U

HGM Classification: n/a

Landform: Swale

Local Relief: Concave

Microtopography:	Slope:	Aspect:
Und.	1	S

SOIL

Plot No: ST 132

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
2-0	Oi									
0-17	Bw1	10YR3/4	100					—	SAL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	NO
NRCS Drainage Class:	MWD
Depth of Organic Soils:	2
Restrictive Layer Type:	—
Restrictive Layer Depth:	—

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

N Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST132
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575507
Longitude (DD)	-149.607507

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	ST133
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574751
Longitude (DD)	-149.592758

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 134

Project: Tatchek Rd	Date: 6/03/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SR / ALO
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64 57497	Watershed: Lunch Lake Huc 10
Longitude: - 149. 58511	Location Notes:
Elevation (ft): 488	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: **50% of Total Cover:** **20% of Total Cover:**

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. VACVIT	F	Y	20	9.			
2. SALBEB	F	N	10	10.			
3. ROSACI	FU	–	T	11.			
4. RHOLAO	F	Y	50	12.			
5. BETNEO	FU	–	T	13.			
6.				14.			
7.				15.			

Total Shrub Cover: 80 **50% of Total Cover:** 40 **20% of Total Cover:** 16

Herbaceous Stratum	IND	DOM	Cover	13.			
1. CIHANG	FU	–	T	14.			
2. CORCAN	FU	–	T	15.			
3. EQUARV	F	–	T	16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: – **50% of Total Cover:** **20% of Total Cover:**

1. Open Water | 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 80	x 3 =	240
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 80 (A)		240 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

Yes Dominance Test is >50%

Yes Prevalence Index is ≤3.0

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

___ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

LST

Cowardin Code: U

HGM Classification: n/a

Landform: VALLEY

Local Relief: CONCAVE

Microtopography:	Slope:	Aspect:
flat	–	–

SOIL

Plot No: ST 134

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
4-0	Oi									
0-7	Bw	10YR3/3	100					—	SAL	
									-	frozen below

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Seasonal frost

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	NO
NRCS Drainage Class:	MWD
Depth of Organic Soils:	4
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): _____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST134
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Low Shrub Tundra
Latitude (DD)	64.574968
Longitude (DD)	-149.585115

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 135

Project: Totchaket Rd	Date: 6/3/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe/ALo
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57490	Watershed: Lunch Lake Huc 10
Longitude: - -149.62160	Location Notes:
Elevation (ft): 509	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	NO

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: 50% of Total Cover: 20% of Total Cover:

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. ALNUIN	F	Y	20	9.			
2. POI TRE	FU	–	3	10.			
3. VAC UIT	F	Y	35	11.			
4. BETNEO	FU	–	10	12.			
5. RHOGRO	F	Y	20	13.			
6. PICMAR	FW	–	T	14.			
7. SALBEB	F	–	3	15.			

Total Shrub Cover: 91 50% of Total Cover: 45.5 20% of Total Cover: 18.2

Herbaceous Stratum	IND	DOM	Cover	13.			
1. CHAANG	FU	–	T	14.			
2.				15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 50% of Total Cover: 20% of Total Cover:

1. Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

gcp in OBSF

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 78	x 3 =	234
FACU species 13	x 4 =	52
UPL species	x 5 =	
Column Totals: 91 (A)		286 (B)

Prevalence Index = B/A = 3.14

Hydrophytic Vegetation Indicators:

YES Dominance Test is >50%

NO Prevalence Index is ≤3.0

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

___ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

DSSR

Cowardin Code: U

HGM Classification: n/a

Landform: Terrace

Local Relief: NCA

Microtopography:	Slope:	Aspect:
FLT	–	–

QC

SOIL

Plot No: ST 135

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
3-0	O									
0-9	Bw	10YR 3/4	100					-	SIL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Seasonal frost at 12"

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- N Other (explain in remarks)

Hydric Soils Present?	NO
NRCS Drainage Class:	SUPA
Depth of Organic Soils:	3
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST135
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574895
Longitude (DD)	-149.621592

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST136
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575121
Longitude (DD)	-149.47257

Photo Type: Hydrology Direction: E

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

PHOTO REPORT

Plot Number	ST137
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575161
Longitude (DD)	-149.466947

Photo Type: Hydrology Direction: E

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

PHOTO REPORT

Plot Number	ST138
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Woodland Mixed Forest
Latitude (DD)	64.575373
Longitude (DD)	-149.459292

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST139
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575822
Longitude (DD)	-149.452444

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST140
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575286
Longitude (DD)	-149.447946

Photo Type: Hydrology Direction: E

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

PHOTO REPORT

Plot Number	ST141
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575455
Longitude (DD)	-149.44269

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST142
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575385
Longitude (DD)	-149.436273

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST143
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575178
Longitude (DD)	-149.426768

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST144
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575335
Longitude (DD)	-149.409938

Photo Type: Hydrology Direction: E

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

PHOTO REPORT

Plot Number	ST145
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57572
Longitude (DD)	-149.401427

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST146
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.575257
Longitude (DD)	-149.397012

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST147
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57504
Longitude (DD)	-149.395542

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST148
Wetland Status	Wetland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	PSS1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.575186
Longitude (DD)	-149.394999

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	ST149
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574724
Longitude (DD)	-149.392975

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: S

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST150
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574094
Longitude (DD)	-149.353734

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST151
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.574325
Longitude (DD)	-149.353844

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 152

Project: Totchaket Rd	Date: 6/4/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SMe
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57176	Watershed: Lost Middle River HUC10
Longitude: - 149 26163	Location Notes:
Elevation (ft): 366	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	YES
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	YES
Remarks:				**Is the Sampled Area within a Wetland?**	Yes

VEGETATION T< 1%, P = Present **SUBREGION:**

Tree Stratum DBH ≥ 3 inch 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: **50% of Total Cover:** **20% of Total Cover:**

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. SALPUL	FW	–	T	9.			
2. CHACAL	FW	–	T	10.			
3.				11.			
4.				12.			
5.				13.			
6.				14.			
7.				15.			

Total Shrub Cover: **50% of Total Cover:** **20% of Total Cover:**

Herbaceous Stratum	IND	DOM	Cover	13.			
1. CAR RAR	OL	Y	25	14.			
2. CARAQU	OL	–	3	15.			
3. EQUFLU	OL	–	T	16.			
4. COM PAL	OL	Y	10	17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 38 **50% of Total Cover:** 19 **20% of Total Cover:** 7.6

1.Open Water 20	2. Bare ground 20

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

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

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

Yes Dominance Test is >50%

Yes Prevalence Index is ≤3.0

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

____ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

WH

Cowardin Code: PEMIC

HGM Classification: Riverine

Landform: floodplain

Local Relief: flat

Microtopography: flat | Slope: | Aspect: East

SOIL

Plot No: ST 152

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
10-0	Oe									

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Seasonal frost at 16"

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Hydric Soils Present?	Yes
NRCS Drainage Class:	VPD
Depth of Organic Soils:	10
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- Y Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- Y Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- Y Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- Y Water-stained Leaves (B9)
- Y Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

Surface Water Present? Yes X No ____ Depth (inches): 6

Water Table Present? Yes X No ____ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 0

Episaturation ____ Endosaturation ____

Water Source: River

Wetland Hydrology Present? YES

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST152
Wetland Status	Wetland
Plot Type	WD: Wetland Determination
Plot Date	6/4/2022
NWI Classification	PEM1C
HGM	Riverine
Vegetation Type	Wet Herbaceous
Latitude (DD)	64.571759
Longitude (DD)	-149.261625

Photo Type: Hydrology Direction: S

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

PHOTO REPORT

Plot Number	ST153
Wetland Status	RPW
Plot Type	SC: Stream Crossing
Plot Date	6/4/2022
NWI Classification	R2UBH
HGM	Riverine Channel
Vegetation Type	Open Water
Latitude (DD)	64.572014
Longitude (DD)	-149.261483

Photo Type: Hydrology Direction: E

Photo Type: Hydrology Direction: N/A

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST154
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.580113
Longitude (DD)	-149.278759

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST155
Wetland Status	Wetland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	PEM1C
HGM	Flat
Vegetation Type	Wet Herbaceous
Latitude (DD)	64.580076
Longitude (DD)	-149.27719

Photo Type: Hydrology Direction: E

Photo Type: Hydrology Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	ST156
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.579791
Longitude (DD)	-149.27721

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: NW

Photo Type: Vegetation Direction: SE

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: ST 157

Project: Etchelt Rd	Date: 6/4/22
Applicant: Alaska Department of Transportation and Public Facilities	Investigators: SRe
Borough/City/Location:	

NAD 83, Decimal Degrees

STANTEC

Latitude: 64.57845	Watershed: West Middle River HUC10
Longitude: - 149.27748	Location Notes:
Elevation (ft): 400	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	NO
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	NO

VEGETATION

T< 1%, P = Present

SUBREGION:

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1.				3.			
2.				4.			

Total Tree Cover: 50% of Total Cover: 20% of Total Cover:

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. POPTRE	FU	Y	50	9.			
2. VACUIT	F	–	25	10.			
3. RHOGRO	F	–	T	11.			
4. BETNEO	FU	–	15	12.			
5. ARC UVA URSI	UP	Y	50	13.			
6. VACVIT	F	–	T	14.			
7. SHECAN	FU	–	T	15.			

Total Shrub Cover: 140 50% of Total Cover: 70 20% of Total Cover: 28

Herbaceous Stratum	IND	DOM	Cover	13.			
1. FESART	F	–	T	14.			
2. ARNICA FM	–	–	T	15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 50% of Total Cover: 20% of Total Cover:

1. Open Water — 2. Bare ground

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Soil S N

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 25	x 3 =	75
FACU species 65	x 4 =	260
UPL species 50	x 5 =	250
Column Totals: 140 (A)		585 (B)

Prevalence Index = B/A = 4.18

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

NO Prevalence Index is ≤3.0

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

___ Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

DSSR

Cowardin Code: U

HGM Classification: n/a

Landform: hilltop

Local Relief: convex

Microtopography:	Slope:	Aspect:
flat	3	90

D A

SOIL

Plot No: ST 157

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	Soil Matrix %	Redox Features Type[1]	Redox Features Color	Redox Features %	Redox Features Loc[2]	Mod[3]	Texture	Horizon Comments
1-0	Oi									
0-3	AB	7.5YR4/4	100					-	SAL	
3-20	Bw	10YR5/6	100					-	SAL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	NO
NRCS Drainage Class:	MWD
Depth of Organic Soils:	1
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? _____

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): _____

Episaturation _____ Endosaturation _____

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	ST157
Wetland Status	Upland
Plot Type	WD: Wetland Determination
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.578445
Longitude (DD)	-149.277486

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	ST158
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.569308
Longitude (DD)	-149.255741

Photo Type: Hydrology Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: SW

PHOTO REPORT

Plot Number	ST159
Wetland Status	Wetland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	PEM1/SS1F
HGM	Depressional
Vegetation Type	Wet Herbaceous
Latitude (DD)	64.569097
Longitude (DD)	-149.255501

Photo Type: Hydrology Direction: E

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

PHOTO REPORT

Plot Number	ST160
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.56064
Longitude (DD)	-149.23525

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: S

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST161
Wetland Status	Wetland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	PSS1F
HGM	Depressional
Vegetation Type	Open Low Willow Shrub
Latitude (DD)	64.560525
Longitude (DD)	-149.235293

Photo Type: Hydrology Direction: E

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST162
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Mesic Herbaceous
Latitude (DD)	64.560262
Longitude (DD)	-149.220385

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

PHOTO REPORT

Plot Number	ST163
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Closed Deciduous Forest
Latitude (DD)	64.560014
Longitude (DD)	-149.220437

Photo Type: Soils Direction: N/A

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	ST164
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Tall Alder Shrub
Latitude (DD)	64.560261
Longitude (DD)	-149.217255

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Vegetation Direction: E

PHOTO REPORT

Plot Number	ST165
Wetland Status	RPW
Plot Type	SC: Stream Crossing
Plot Date	6/9/2022
NWI Classification	R2UBH
HGM	Riverine Channel
Vegetation Type	Open Water
Latitude (DD)	64.560301
Longitude (DD)	-149.217177

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: N/A

Photo Type: Hydrology Direction: S

PHOTO REPORT

Plot Number	ST166
Wetland Status	Wetland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	PSS1C
HGM	Riverine
Vegetation Type	Open Tall Alder Willow Shrub
Latitude (DD)	64.560375
Longitude (DD)	-149.2177

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: NW

PHOTO REPORT

Plot Number	ST167
Wetland Status	Wetland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	PSS1C
HGM	Riverine
Vegetation Type	Open Tall Alder Willow Shrub
Latitude (DD)	64.56018
Longitude (DD)	-149.217866

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: S

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	ST168
Wetland Status	RPW
Plot Type	SC: Stream Crossing
Plot Date	6/9/2022
NWI Classification	R2UBH
HGM	Riverine Channel
Vegetation Type	Open Water
Latitude (DD)	64.560326
Longitude (DD)	-149.185237

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST169
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.560404
Longitude (DD)	-149.185214

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Vegetation Direction: E

PHOTO REPORT

Plot Number	ST170
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Tall Alder Shrub
Latitude (DD)	64.560465
Longitude (DD)	-149.185601

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	ST171
Wetland Status	RPW
Plot Type	SC: Stream Crossing
Plot Date	6/9/2022
NWI Classification	R2UBH
HGM	Riverine Channel
Vegetation Type	Open Water
Latitude (DD)	64.558462
Longitude (DD)	-149.126641

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST172
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Closed Tall Alder Shrub
Latitude (DD)	64.55839
Longitude (DD)	-149.126565

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

Photo Type: Vegetation Direction: SE

PHOTO REPORT

Plot Number	ST173
Wetland Status	Wetland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	PSS1C
HGM	Riverine
Vegetation Type	Open Tall Alder Shrub
Latitude (DD)	64.558574
Longitude (DD)	-149.12618

Photo Type: Hydrology Direction: N

Photo Type: Hydrology Direction: S

Photo Type: Hydrology Direction: W

PHOTO REPORT

Plot Number	ST174
Wetland Status	Wetland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	PSS1/EM1C
HGM	Riverine
Vegetation Type	Open Tall Alder Willow Shrub
Latitude (DD)	64.558431
Longitude (DD)	-149.127106

Photo Type: Hydrology Direction: E

Photo Type: Hydrology Direction: S

Photo Type: Vegetation Direction: SW

PHOTO REPORT

Plot Number	ST175
Wetland Status	Upland
Plot Type	FVP: Field Verification Point
Plot Date	6/9/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.558643
Longitude (DD)	-149.126831

Photo Type: Hydrology Direction: SE

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 500

Project: Totchaket Road	Date: 5/31/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.60116	Watershed: Kantishna River
Longitude: 150.09343	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	Yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	Yes
Remarks:				**Is the Sampled Area within a Wetland?**	Yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAC

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover	Species	IND	DOM	Cover
1. Bet. gla.	FAC	Y	25	8. Rho. tom.	FACW	7	7
2. Bet. pap.	FACU		5	9. Vac. uli.	FAC	3	10
3. Aln. vir.	FAC	3	5	10.			
4. Rho. gro.	FAC	Y	10	11.			
5. Cha. cal.	FACW	Y	10	12.			
6. Vac. vit.	FAC	3	3	13.			
7. Sal. beb.	FAC		5	14.			
				15.			

Total Shrub Cover: 80 50% of Total Cover: 40 20% of Total Cover: 16

Herbaceous Stratum	IND	DOM	Cover	Species	IND	DOM	Cover
1. Eri. vag.	FACW	Y	65	13.			
2. Cal. can.	FAC		15	14.			
3.				15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 80 50% of Total Cover: 40 20% of Total Cover: 16

1. Open Water 0 — 2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Passes dominance & PI,

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	82 x 2 =	164
FAC species	73 x 3 =	219
FACU species	5 x 4 =	20
UPL species	0 x 5 =	0
Column Totals:	160 (A)	403 (B)

Prevalence Index = B/A = 2.52

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIC2a

Cowardin Code: PEM1/SS1B

HGM Classification: Flat

Landform: Terrace

Local Relief: Flat

Microtopography: Tussocky | Slope: 0 | Aspect: N/A

SOIL

Plot No: HDR500

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-4	Oi	10YR 2/1	-	-	-	-	-	-		
4-10	Oe	↓		-	-	-	-	-		Frozen @ 5"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Frozen @ 5". Chipped to 10".

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4] (assumed)
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	10"
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	5"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- Y Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes*

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4) - Tussocky
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

Surface Water Present?	Yes X	No ___	Depth (inches): 2"
Water Table Present?	Yes X	No ___	Depth (inches): 7"
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 5"

Episaturation X Endosaturation

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Surface water in low areas b/t tussocks

Remarks: Precip. conditions w/in range of normal however early season conditions coupled with high winter snowfall in the region result in shallow frost and young emergent vegetation.*

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR500
Wetland Status	Wetland
Plot Type	WD
Plot Date	5/31/2022
NWI Classification	PEM1/SS1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.60116
Longitude (DD)	-150.0934

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: SO1

Project: Totchaket Road	Date: 5/31/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.60033	Watershed: Kantishna River
Longitude: 150.09632	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAC

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Rho. gro.	FAC	Y	50	8. Sal. pul.	FACW		1
2. Vac. vit.	FAC	Y	20	9. Sal. beb.	FAC		1
3. Bet. pap.	FACU		10	10. Pic. mar.	FACW		3
4. Vac. uli.	FAC		5	11. Pop. tre.	FACU		3
5. Bet. gla.	FAC		3	12. Pop. bal.	FACU		1
6. Ros. aci.	FACU		10	13. Cha. cal.	FACW		3
7. Aln. vir.	FAC		3	14. Aln. inc.	FAC		1
				15.			

Total Shrub Cover: 114 50% of Total Cover: 57 20% of Total Cover: 22.8

Herbaceous Stratum	IND	DOM	Cover				
1. Cal. can.	FAC	Y	10	13.			
2. Mer. pan.	FACU	Y	7	14.			
3. Equ. arv.	FAC		3	15.			
4. Eri. vag.	FACW		1	16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 21 50% of Total Cover: 10.5 20% of Total Cover: 4.2

1. Open Water 0 — 2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

25% standing dead, burned spruce.

Passes dominance test.

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% (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 8	x 2 =	16
FAC species 96	x 3 =	288
FACU species 31	x 4 =	124
UPL species 0	x 5 =	0
Column Totals: 135 (A)		428 (B)

Prevalence Index = B/A = 3.17

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IIC1

Cowardin Code: PSSSB

HGM Classification: Flat

Landform: Terrace

Local Relief: Slight Concave

Microtopography: Flat | Slope: 2% | Aspect: W

HDR

SOIL

Plot No: 501

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-4	Oi	10YR 2/2	100	-	-	-	-	-	-	
4-7	A	10YR 2/1	100	-	-	-	-	-	SiLo	Frozen @ 6"
7-14	B	5Y 4/1	85	C	7.5YR 4/4	15	M,RC		SiLo	↓

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- Y Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	Yes
NRCS Drainage Class:	SPD
Depth of Organic Soils:	4
Restrictive Layer Type:	Frozen
Restrictive Layer Depth:	6"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

N Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- Y Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - Slight concave
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR501
Wetland Status	Wetland
Plot Type	WD
Plot Date	5/31/2022
NWI Classification	PSS3B
HGM	Flat
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.60033
Longitude (DD)	-150.09629

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 502

Project: Totchaket Road	Date: 5/31/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.60061	Watershed: Kantishna River
Longitude: 150.09758	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	Yes
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. Bet. pap.	FACU		10	3.			
2. Pic. mar.	FACW	Y	55	4.			

Total Tree Cover: 65 **50% of Total Cover:** 32.5 **20% of Total Cover:** 13

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Aln. vir.	FAC	Y	10	8. Vib. edu.	FACU		10
2. Sal. ala	FAC		3	9.			
3. Sal. pol.	FACW		3	10.			
4. Vac. vit.	FAC	Y	15	11.			
5. Lin. bor.	FACU		7	12.			
6. Rho. gro.	FAC	Y	10	13.			
7. Ros. aci	FACU		5	14.			
				15.			

Total Shrub Cover: 54 **50% of Total Cover:** 27 **20% of Total Cover:** 10.8

Herbaceous Stratum	IND	DOM	Cover				
1. Equ. arv.	FAC	Y	30	13.			
2. Mer. pau.	FACU		5	14.			
3. Geo. lin.	FACU		5	15.			
4. Cal. can.	FAC		5	16.			
5. Cor. can.	FACU		3	17.			
6. Grt. sec.	FACU		10	18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 58 **50% of Total Cover:** 29 **20% of Total Cover:** 11.6

1. Open Water —

2. Bare ground Feathermoss 50

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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% (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	58 x 2 =	116
FAC species	73 x 3 =	219
FACU species	46 x 4 =	184
UPL species	0 x 5 =	0
Column Totals:	177 (A)	519 (B)

Prevalence Index = B/A = 2.93

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IA1K

Cowardin Code: —

HGM Classification: N/A

Landform: Terrace

Local Relief: Slight convex

Microtopography: None

Slope: 5%

Aspect: SE

HDR

SOIL

Plot No: 502

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators | Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-4	O:	10YR 2/2	100							
4-5	Oe	10YR 2/1	100							
5-9	A	2.5Y 3/1	100						SiCO	Frozen @ 6"
9-14	A/B	10YR 3/2	60	~	~	~	~	~	SiCO	
		2.5Y 3/1	40	~	~	~	~	~	SiCO	
14-16	B	2.5Y 4/1	85	C	7.5YR 3/3	15	M	~	SiCO	
		7.5YR 4/2	15	C						

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: For problematic indicators: No 1° hydro or landscape setting, slight Hg convex

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Hydric Soils Present?	No
NRCS Drainage Class:	SPD
Depth of Organic Soils:	5"
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	6"

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- N Other (explain in remarks)

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation

Water Source:

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR502
Wetland Status	Upland
Plot Type	WD
Plot Date	5/31/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Closed Black Spruce Forest
Latitude (DD)	64.6006
Longitude (DD)	-150.09756

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 503

Project: Totchaket Road	Date: 5/31/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.60171	Watershed: Kantishna River
Longitude: 150.10290	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	No
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. Bet. pap.	FACU	Y	25	3.			
2. Pic. gla.	FACU	Y	10	4.			

Total Tree Cover: 35 **50% of Total Cover:** 17.5 **20% of Total Cover:** 7

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. Vib. edu.	FACU	Y	25	9.			
2. Ros. aci.	FACU	Y	30	10.			
3. Aln. vir.	FAC	Y	20	11.			
4. Pop. bal.	FACU	Y	25	12.			
5.				13.			
6.				14.			
7.				15.			

Total Shrub Cover: 80 **50% of Total Cover:** 40 **20% of Total Cover:** 16

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Equ. arv.	FAC	Y	35	14.			
2. Mer. pan.	FACU		3	15.			
3. Cor. can.	FACU	Y	25	16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 63 **50% of Total Cover:** 31.5 **20% of Total Cover:** 12.6

1. Open Water — 2. Bare ground 10

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

30x10' plot on bench adj. to slough.
Slough ≈ 15' wide.

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	0 x 2 =	0
FAC species	55 x 3 =	165
FACU species	123 x 4 =	492
UPL species	0 x 5 =	0
Column Totals:	178 (A)	657 (B)

Prevalence Index = B/A = 3.69

Hydrophytic Vegetation Indicators:

N Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IC2a

Cowardin Code: P

HGM Classification: N/A

Landform: Terrace

Local Relief: Flat

Microtopography:	Slope:	Aspect:
None	5%	W

HDR

SOIL

Plot No: 503

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-5	Oe	10YR 2/1	100	–	–	–	–	–	–	
5-20	A/B	2.5Y 3/1	100	–	–	–	–	–	SiLo	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: No hydric soil indicators.

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	MWD
Depth of Organic Soils:	5
Restrictive Layer Type:	None
Restrictive Layer Depth:	N/A

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- Y Sediment Deposits (B2)
- Y Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) – adj. to slough on terrace
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

Surface Water Present?	Yes ___	No X	Depth (inches): –
Water Table Present?	Yes X	No ___	Depth (inches): 20
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 17

Episaturation ___ Endosaturation ___

Water Source: Flooding from adjacent slough.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

~6" standing water in adjacent slough

Remarks: Plot located adjacent to slough, Evidence of recent flooding but no hydric soil indicators, no hydrophytic veg.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR503
Wetland Status	Upland
Plot Type	WD
Plot Date	5/31/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Mixed Forest
Latitude (DD)	64.60171
Longitude (DD)	-150.10288

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR504
Wetland Status	RPW
Plot Type	SC
Plot Date	5/31/2022
NWI Classification	R3UBH
HGM	Riverine Channel
Vegetation Type	Open Water
Latitude (DD)	64.60171
Longitude (DD)	-150.10285

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: NE

Photo Type: Direction:

PHOTO REPORT

Plot Number	HDR505
Wetland Status	Upland
Plot Type	FVP
Plot Date	5/31/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Closed Deciduous Forest
Latitude (DD)	64.60137
Longitude (DD)	-150.1021

Photo Type: Vegetation Direction: W

Photo Type: Vegetation Direction: E

Photo Type: Direction:

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 506

Project: Totchaket Road	Date: 6/1/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57492	Watershed: Rock Creek
Longitude: 149.91239	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	Yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	Yes
Remarks:				**Is the Sampled Area within a Wetland?**	Yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover	8. Pic. mar.	FACW		1
1. Bet. nan.	FAC	Y	25	9.			
2. Rho. tom.	FACW	Y	25	10.			
3. Cha. cal.	FACW	Y	20	11.			
4. Vac. uli.	FAC		10	12.			
5. Bet. gla.	FAC		15	13.			
6. Sal. fus.	FACW		5	14.			
7. Rho. gro.	FAC		3	15.			

Total Shrub Cover: 104 50% of Total Cover: 52 20% of Total Cover: 20.8

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Eri. vag.	FACW	Y	50	14.			
2. Cal. can.	FAC		5	15.			
3. Car. big.	FAC		3	16.			
4. Rub. cha.	FACW		10	17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 68 50% of Total Cover: 34 20% of Total Cover: 13.6

1. Open Water 0 — 2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	111 x 2 =	222
FAC species	61 x 3 =	183
FACU species	0 x 4 =	0
UPL species	0 x 5 =	0
Column Totals:	172 (A)	405 (B)

Prevalence Index = B/A = 2.36

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

Y — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

ICZa

Cowardin Code: PSS3/EM1B

HGM Classification: Flat

Landform: Lowland

Local Relief: None

Microtopography:	Slope:	Aspect:
mod tussock	0	N/A

HDR

SOIL

Plot No: 506

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-11	Oe	10YR 2/1	100	-	-	-	-	-		Frozen @ 8"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Chipped frozen soil to 11"

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- X Histic Epipedon (A2)[4] (assumed)
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	11
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	8"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) – Flat
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4) – hummocky
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

Surface Water Present?	Yes X	No ___	Depth (inches): 2
Water Table Present?	Yes X	No ___	Depth (inches): 7
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 4

Episaturation Y Endosaturation

Water Source: Precip

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR506
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/1/2022
NWI Classification	PSS3/EM1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.57491
Longitude (DD)	-149.91231

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

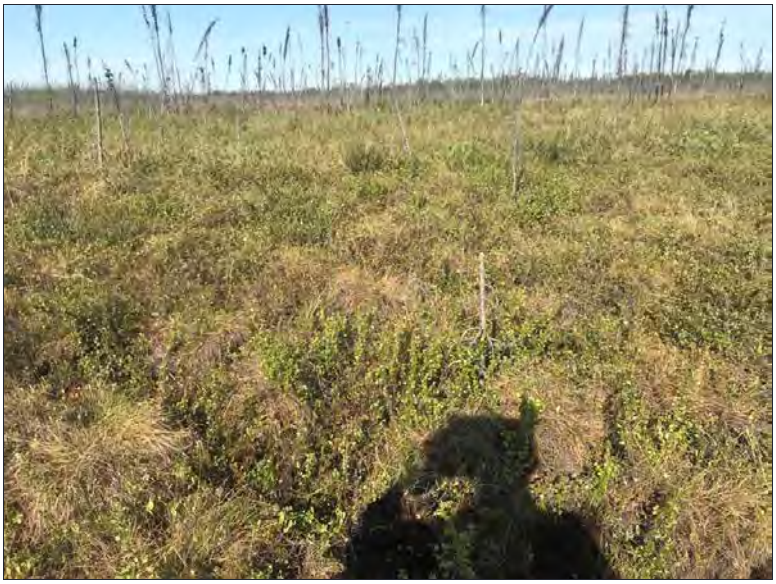

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR507
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/1/2022
NWI Classification	PSS3/EM1C
HGM	Flat
Vegetation Type	Ericaceous Shrub Bog
Latitude (DD)	64.57479
Longitude (DD)	-149.91432

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: E

Photo Type: Direction:

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 508

Project: Totchaket Road	Date: 6/1/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57497	Watershed: Rock Creek
Longitude: 149.91856	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	Yes
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None.				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Vac. uli.	FAC	Y	40	8. And. pol.	OBL		1
2. Rho. tom.	FACW	Y	25	9. Vac. vit.	FAC		5
3. Sal. bcb.	FAC		5	10. Arc. rub.	FAC		3
4. Pop. tre.	FACU		3	11.			
5. Pic. mar.	FACW		1	12.			
6. Bet. gla.	FAC		10	13.			
7. Bet. nan.	FAC		5	14.			
				15.			

Total Shrub Cover: 98 **50% of Total Cover:** 49 **20% of Total Cover:** 19.6

Herbaceous Stratum	IND	DOM	Cover				
1. Equ. sci.	FACU		3	13.			
2. Car. big.	FAC		3	14.			
3. Iri. set.	FAC		1	15.			
4. Cal. can.	FAC	Y	10	16.			
5.		/		17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 17 **50% of Total Cover:** 8.5 **20% of Total Cover:** 3.4

1. Open Water 0 — 2. Bare ground 15

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	1 x 1 =	1
FACW species	26 x 2 =	52
FAC species	82 x 3 =	246
FACU species	6 x 4 =	24
UPL species	0 x 5 =	0
Column Totals:	115 (A)	323 (B)

Prevalence Index = B/A = 2.81

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IIC1

Cowardin Code: U

HGM Classification: N/A

Landform: Lowland

Local Relief: Slightly convex

Microtopography:	Slope:	Aspect:
None	2	N

SOIL

HDR
Plot No: 508

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	Oi									
3-4	A	10YR 2/1	100	-	-	-	-	-	SILO	
4-9	B	10YR 3/3	100	-	-	-	-	-	SALO	
9-11	B_2	10YR 3/1	85	C	7.5YR 3/3	15	M		SALO	Frozen 11"
11-15	B_3	2.5Y 4/1	90	C	7.5YR 3/3	10	M		SALO	↓

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:
No primary hydro; not appropriate landscape position.

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Hydric Soils Present?	No
NRCS Drainage Class:	SPD
Depth of Organic Soils:	3
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	11"

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:
Old burn area. 30'h standing dead spruce.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR508
Wetland Status	Upland
Plot Type	WD
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57497
Longitude (DD)	-149.91853

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR509
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/1/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.57495
Longitude (DD)	-149.91779

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

Photo Type: Direction:

PHOTO REPORT

Plot Number	HDR510
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/1/2022
NWI Classification	PSS3/EM1B
HGM	Flat
Vegetation Type	Ericaceous Shrub Bog
Latitude (DD)	64.57506
Longitude (DD)	-149.9209

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: E

Photo Type: Direction:

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 511

Project: Totchaket Road		Date: 6/1/2011	
Applicant: Department of Transportation and Public Facilities		Investigators:	
Borough/City/Location: West of Nenana		ZH	MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57512	Watershed: Rock Creek
Longitude: 149.92365	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None.				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Rho. tom.	FACW	Y	35	8. Pic. mar.	FACW		3
2. Rho. gro.	FAC		5	9. Bet. gla.	FAC		7
3. Vac. oxy.	OBL		3	10. Sal. pul.	FACW		7
4. Arc. rub.	FAC		3	11. Cha. cal.	FACW	Y	10
5. Vac. vit.	FAC	Y	10	12. Bet. nan.	FAC		3
6. And. pol.	OBL	Y	10	13. Das. fru.	FAC		1
7. Vac. uli.	FAC	Y	10	14. Sal. ala.	FAC		5
				15. Sal. sco.	FAC		1

Total Shrub Cover: 113 50% of Total Cover: 56.5 20% of Total Cover: 22.6

Herbaceous Stratum	IND	DOM	Cover				
1. Car. aqu.	OBL	Y	10	13.			
2. Cal. can.	FAC	Y	15	14.			
3. Rub. cha.	FACW	Y	10	15.			
4. Eri. vag.	FACW		5	16.			
5. Equ. sci.	FACU		1	17.			
6. Unknown graminoid	-	-	1	18.			
7. Tri. cae.	OBL		3	19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 45 50% of Total Cover: 22.5 20% of Total Cover: 9

1. Open Water None 2. Bare ground Sphag. 50

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 26	x 1 =	26
FACW species 70	x 2 =	140
FAC species 60	x 3 =	180
FACU species 1	x 4 =	4
UPL species 0	x 5 =	0
Column Totals: 157 (A)		350 (B)

Prevalence Index = B/A = 2.23

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

Y — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IC1

Cowardin Code: PSS3/EMB

HGM Classification: Flat

Landform: Lowland

Local Relief: Flat

Microtopography:	Slope:	Aspect:
Mod. hum	2	W

SOIL

Plot No: HDR 511

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-10	Oe	10YR 2/1	100	-	-	-	-	-	-	Frozen @ 5"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4] (assumed)
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	10+
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	5"

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - Flat
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4) - hummocky
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 5"
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 3"

Episaturation X Endosaturation

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

15% standing dead Pic. mar. shrub (burned)

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR511
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/1/2022
NWI Classification	PSS3/EM1B
HGM	Flat
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57512
Longitude (DD)	-149.9236

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 512

Project: Totchaket Road	Date: 6/1/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57535	Watershed: Rock Creek
Longitude: 149.92450	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	NO
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. Pic. Mar	FACW	Y	35	3.			
2. Pop. tre	FACU		5	4.			

Total Tree Cover: 40 — 50% of Total Cover: 20 — 20% of Total Cover: 8

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Vac. vit.	FAC	Y	60	8. Ros. aci	FACU		3
2. Rhe. gro.	FAC		10	9.			
3. She. can.	FACU		1	10.			
4. ———	–	–	–	11.			
5. Sal. beb.	FAC		3	12.			
6. Vac. uli.	FAC		5	13.			
7. Pic Mar	FACW		10	14.			
				15.			

Total Shrub Cover: 92 — 50% of Total Cover: 46 — 20% of Total Cover: 18.4

Herbaceous Stratum	IND	DOM	Cover				
1. Geo. liv.	FACU	Y	5	13.			
2. Cor. can.	FACU	Y	10	14.			
3. Pyr. asa	FACU		1	15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 16 — 50% of Total Cover: 8 — 20% of Total Cover: 3.2

1. Open Water ~ — 2. Bare ground 20 Spruce moss

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	45 x 2 =	90
FAC species	78 x 3 =	234
FACU species	25 x 4 =	100
UPL species	0 x 5 =	0
Column Totals:	148 (A)	424 (B)

Prevalence Index = B/A = 2.87

Hydrophytic Vegetation Indicators:

N Dominance Test is >50%

Y Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

OBSF IAZf

Cowardin Code: U

HGM Classification: N/A

Landform: Low ridge.

Local Relief: Convex

Microtopography:	Slope:	Aspect:
None	5%	East

SOIL

Plot No: HDR S12

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	Soil Matrix %	Redox Features Type[1]	Redox Features Color	Redox Features %	Redox Features Loc[2]	Mod[3]	Texture	Horizon Comments
6-3	Oi									
3-5	A	10YR 2/1	100	-	-	-	-	-	FSALO	
5-11	B_1	10YR 3/3	100	-	-	-	-	-	FSALO	Chunks of charcoal
11-15	B_2	10YR 3/3	40	-	-	-	-	-	VFSALO	↓
		10YR 4/2	60	-	-	-	-	-		

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Frozen @ 6"!

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	3
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

No hydro indicators. ≈10' higher in elevation than adj. wetland.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR512
Wetland Status	Upland
Plot Type	WD
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Black Spruce Forest
Latitude (DD)	64.57534
Longitude (DD)	-149.92447

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 513

Project: Totchaket Road		Date: 6/1/2022	
Applicant: Department of Transportation and Public Facilities		Investigators:	
Borough/City/Location: West of Nenana		ZH	MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57498	Watershed: Rock Creek
Longitude: 149.93298	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	No
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None.				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Pop. tre.	FACU	Y	15	9. Vac. uli.	FAC		3
2. Pic. mar.	FACW		3	10.			
3. Sal. pol.	FACW		10	11.			
4. Sal. beb.	FAC		10	12.			
5. Rho. gro.	FAC	Y	40	13.			
6. Bet. pap.	FACU		3	14.			
7. Vac. vit.	FAC	Y	15	15.			
8. Ros. aci.	FACU		5				

Total Shrub Cover: 104 **50% of Total Cover:** 52 **20% of Total Cover:** 20.8

Herbaceous Stratum	IND	DOM	Cover				
1. Cha. ang.	FACU	Y	7	13.			
2. Unknown graminoid	–	Y	1	14.			
3.				15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 8 **50% of Total Cover:** 4 **20% of Total Cover:** 1.6

1. Open Water – 2. Bare ground 10

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 13	x 2 =	26
FAC species 68	x 3 =	204
FACU species 30	x 4 =	120
UPL species 0	x 5 =	0
Column Totals: 111 (A)		350 (B)

Prevalence Index = B/A = 3.15

Hydrophytic Vegetation Indicators:

N Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: U

HGM Classification: N/A

Landform: Lowland.

Local Relief: Flat

Microtopography:	Slope:	Aspect:
None	2	E

HDR

SOIL

Plot No: 513

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-2	Oi									
2-3	Oe									
3-18	B	10YR 4/2	70	-	-	-	-	-	FSAL	
		7.5YR 3/3	30	-	-	-	-	-	FSAL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	NO
NRCS Drainage Class:	WD
Depth of Organic Soils:	2
Restrictive Layer Type:	None
Restrictive Layer Depth:	N/A

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? NO

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

Dry pit.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR513
Wetland Status	Upland
Plot Type	WD
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.5749
Longitude (DD)	-149.93295

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR514
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Black Spruce Forest
Latitude (DD)	64.57527
Longitude (DD)	-149.93422

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR515
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/1/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.5748
Longitude (DD)	-149.96149

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 516

Project: Totchaket Road		Date: 6/1/2022	
Applicant: Department of Transportation and Public Facilities		Investigators:	
Borough/City/Location: West of Nenana		ZH	MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57500	Watershed: Rock Creek
Longitude: 149.97514	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Vac. vit.	FAC	Y	10	8. Rho. gro.	FAC	Y	10
2. Vac. uli	FAC	Y	10	9.			
3. Pic. mar.	FACW		7	10.			
4. Ros. aci	FACU		3	11.			
5. Pop. tre	FACU	Y	30	12.			
6. Bet. pap	FACU		3	13.			
7. Sal. beb.	FAC	Y	10	14.			

Total Shrub Cover: 83 50% of Total Cover: 41.5 20% of Total Cover: 16.6

Herbaceous Stratum	IND	DOM	Cover				
1. Cha. ang.	FACU		1	13.			
2. Cal. can.	FAC	Y	15	14.			
3. Cor. sue.	FAC		3	15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 19 50% of Total Cover: 9.5 20% of Total Cover: 3.8

1. Open Water 0 — 2. Bare ground 5

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

56-1

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 7	x 2 =	14
FAC species 58	x 3 =	174
FACU species 37	x 4 =	148
UPL species 0	x 5 =	0
Column Totals: 102 (A)		336 (B)

Prevalence Index = B/A = 3.29

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

N — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: PSS1B

HGM Classification: Flat

Landform: Lowland.

Local Relief: Slight concave

Microtopography:	Slope:	Aspect:
	0	N/A

SOIL

Plot No: HDR 516

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	Oi	10YR2/1								
3-4	Oe	10YR2/1								
4-5	A	10YR2/1	100	-	-	-	-	-	SILO	frozen @ 8"
5-15	B	5Y 4/1	85	C	7.5YR 4/4	15	M,PC		SILO	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- Y Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	Yes
NRCS Drainage Class:	SPD
Depth of Organic Soils:	4
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	8

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- X Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- Y Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- ___ Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - slight concave
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes X No ___ Depth (inches): 6" - slow seep.

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 5"

Episaturation X Endosaturation

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR516
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/1/2022
NWI Classification	PSS1B
HGM	Flat
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57499
Longitude (DD)	-149.97511

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR517
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/2/2022
NWI Classification	PFO4/SS3B
HGM	Flat
Vegetation Type	Open Black Spruce Forest
Latitude (DD)	64.57508
Longitude (DD)	-149.90689

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

Photo Type: Direction:

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR
Plot No: 518

Project: Totchaket Road	Date: 6/2/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57502	Watershed: Rock Creek
Longitude: 149.90322	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
* 1. Pic.mar.	FACW		3v	3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. Pop. tre.	FACU	Y	40	9. Pic. mar.	FACW		8
2. Vac. vit.	FAC	Y	20	10. Arc. uva.	UPL		10
3. Ros. aci.	FACU		7	11. Vac. uli.	FAC		1
4. Arc. rub.	FAC		5	12. Sal. beb.	FAC		3
5. Lin. bor.	FACU		3	13.			
6. She. can.	FACU		5	14.			
7. Rha. gro.	FAC		3	15.			

Total Shrub Cover: 105 **50% of Total Cover:** 52.5 **20% of Total Cover:** 21

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Cha. ang.	FACU	Y	5	14.			
2. Cal. can.	FAC	Y	3	15.			
3. Equ. arv.	FAC	Y	5	16.			
4. Cor. can.	FACU		1	17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 14 **50% of Total Cover:** 7 **20% of Total Cover:** 2.8

1.Open Water —

2. Bare ground 25 - leaf litter

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Several downed, dead Pic.mar. (t)

*Combined with shrub stratum.

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	8 x 2 =	16
FAC species	40 x 3 =	120
FACU species	61 x 4 =	244
UPL species	10 x 5 =	50
Column Totals:	119 (A)	430 (B)

Prevalence Index = B/A = 3.61

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: U

HGM Classification: N/A

Landform: Mound

Local Relief: Convex

Microtopography:	Slope:	Aspect:
None	5	South

HDR

SOIL

Plot No: 518

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-1	A	10YR 2/1	100	-	-	-	-	-	SALO	
1-4	B_1	7.5YR 4/3	100	-	-	-	-	-	VFSALO	
4-18	B_2	10YR 3/4	100	-	-	-	-	-	VFSALO	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: No

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	0
Restrictive Layer Type:	None
Restrictive Layer Depth:	N/A

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR518
Wetland Status	Upland
Plot Type	WD
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57502
Longitude (DD)	-149.90319

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 519

Project: Totchaket Road	Date: 6/2/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57485	Watershed: Rock Creek
Longitude: 149.90002	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	Yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Sal. pul.	FACW	Y	15	8. Bet. pap.	FACU		10
2. Cha. cal.	FACW	Y	15	9. Pop. tre.	FACU		1
3. And. pol.	OBL		5	10. Rho. gro.	FAC		7
4. Pic. mar.	FACW		1	11. Rho. tom.	FACW		1
5. Das. fru.	FAC		3	12. Vac. vit.	FAC		3
6. Bet. gla.	FAC	Y	15	13. Arc. uva.	UPL		3
7. Sal. sco.	FAC		5	14. Vac. uli.	FAC		3
				15. Aln. vir.	FAC		1

Total Shrub Cover: 88 50% of Total Cover: 44 20% of Total Cover: 17.6

Herbaceous Stratum	IND	DOM	Cover				
1. Eri. vag.	FACW	Y	40	13.			
2. Cal. can.	FAC		3	14.			
3. Eri. ang.	OBL		5	15.			
4. Rub. cha.	FACW		1	16.			
5. Cop. lap.	OBL		3	17.			
6. Cal. can.	FAC		3	18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 55 50% of Total Cover: 27.5 20% of Total Cover: 11

1. Open Water 0 — 2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	13	x 1 =	13
FACW species	73	x 2 =	146
FAC species	43	x 3 =	129
FACU species	11	x 4 =	44
UPL species	3	x 5 =	15
Column Totals:	143 (A)		347 (B)

Prevalence Index = B/A = 2.43

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IIC2a

Cowardin Code: PSS1/3B

HGM Classification: Flat

Landform: Lowland

Local Relief: None

Microtopography:	Slope:	Aspect:
Mod hummy	5	W

SOIL

HDR
Plot No: 519

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators | Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	Soil Matrix %	Redox Features Type[1]	Redox Features Color	Redox Features %	Redox Features Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	Oi	10 YR 2/2	100	–	–	–	–	–	–	
3-9	Oe	10 YR 2/1	100	–	–	–	–	–	–	Frozen @ 4"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4] (assumed)
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	9"
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	4"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - Flat @ toe of bridge
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes Y No ___ Depth (inches): 3"

Saturation Present? (includes capillary fringe) Yes Y No ___ Depth (inches): 2"

Episaturation Y Endosaturation

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR519
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/2/2022
NWI Classification	PSS1/3B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.57484
Longitude (DD)	-149.89999

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR
Plot No: 520

Project: Totchaket Road	Date: 6/2/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57487	Watershed: Rock Creek
Longitude: 149.89871	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	No
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. Bet. pap.	FACW	Y	5	3. Pic. mar.	FACW	Y	15
2. Pop. tre.	FACU	Y	5	4.			

Total Tree Cover: 25 **50% of Total Cover:** 12.5 **20% of Total Cover:** 5

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Vac. vit.	FAC	Y	60	8. Pic. mar.	FACW		7
2. Rhe. gro.	FAC		15	9. Arc. uva.	UPL		3
3. Aln. vir.	FAC		5	10. Pop. bal.	FACU		1
4. Sal. beb.	FAC		5	11.			
5. —	—	—	—	12.			
6. Bet. pap.	FACU		7	13.			
7. Pop. tre.	FACU		15	14.			
				15.			

Total Shrub Cover: 118 **50% of Total Cover:** 59 **20% of Total Cover:** 23.60

Herbaceous Stratum	IND	DOM	Cover				
1. Geo. liv.	FACU	Y	5	13.			
2. Equ. arv.	FAC		1	14.			
3. Pyr. asa.	FACU	Y	3	15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 9 **50% of Total Cover:** 4.5 **20% of Total Cover:** 1.8

1. Open Water — 2. Bare ground 15 litter

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	22 x 2 =	44
FAC species	86 x 3 =	258
FACU species	41 x 4 =	164
UPL species	3 x 5 =	15
Column Totals:	152 (A)	481 (B)

Prevalence Index = B/A = 3.17

Hydrophytic Vegetation Indicators:

N Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IC2a

Cowardin Code: U

HGM Classification: N/A

Landform: Mound

Local Relief: Convex

Microtopography: None

Slope: 30

Aspect: W

HDR

SOIL

Plot No: 520

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-2	Oi									
2-4	Oe									
4-8	B	7.5YR 3/4	100	-	-	-	-	-	SILO	
8-13	B	10YR 4/3	100	-	-	-	-		VFSALO	
13-19	B	2.5Y 4/3	100	-	-	-	-		SALO	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	4
Restrictive Layer Type:	None
Restrictive Layer Depth:	N/A

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:
Dry pit.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR520
Wetland Status	Upland
Plot Type	WD
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Mixed Forest
Latitude (DD)	64.57487
Longitude (DD)	-149.89869

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 521

Project: Totchaket Road	Date: 6/2/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57498	Watershed: Rock Creek
Longitude: 149.8942	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	No
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None.				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Bet. pap.	FACW	Y	20	8. Sal. pul.	FACW		5
2. Pic. mar.	FACW		1	9. Sal. beb.	FAC		10
3. Rho. gro.	FAC	Y	65	10. Ros. aci.	FACU		5
4. Vac. vit.	FAC		15	11.			
5. Vac. uli.	FAC		7	12.			
6. Pop. tre.	FACU		3	13.			
7. Sal. sco.	FAC		3	14.			
				15.			

Total Shrub Cover: 134 **50% of Total Cover:** 67 **20% of Total Cover:** 26.8

Herbaceous Stratum	IND	DOM	Cover				
1. Geo. liv.	FACU	Y	3	13.			
2. Cha. ang.	FACU	Y	3	14.			
3. Cal. can.	FAC	Y	5	15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 11 **50% of Total Cover:** 5.5 **20% of Total Cover:** 2.2

1. Open Water 0 — 2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Several standing dead burned Pic. mar.

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	6 x 2 =	12
FAC species	105 x 3 =	315
FACU species	34 x 4 =	136
UPL species	0 x 5 =	0
Column Totals:	145 (A)	463 (B)

Prevalence Index = B/A = 3.19

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IC2

Cowardin Code: V

HGM Classification: N/A

Landform: Lowland

Local Relief: Flat

Microtopography:	Slope:	Aspect:
Small hum.	0	n/a

HDR

SOIL

Plot No: 521

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-4	Oi									
4-7	A	10YR 2/1	100	-	-	-	-	-	SiCL	
7-17	B	2.5Y 4/1	90	C	7.5YR 3/3	10	M		SiCL	Charcoal inclusions Frozen @ 14"
15-		7.5YR	10	C						

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:
No 1 hydro. or veg. for problematic soil indicators.

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	MWD
Depth of Organic Soils:	4
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

N Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:
Dry p.t.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR521
Wetland Status	Upland
Plot Type	WD
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57497
Longitude (DD)	-149.89419

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 522

Project: Totchaket Road	Date: 6/2/2024
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57510	Watershed: Rock Creek
Longitude: 149.85793	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None.				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Vac. vit.	FAC		10	8. Arc. uva.	UPL		3
2. Vac. uli.	FAC	Y	15	9.			
3. Pic. mar.	FACW		3	10.			
4. Pop. tre.	FACU		3	11.			
5. Rho. gro.	FAC	Y	20	12.			
6. She. can.	FACU		5	13.			
7. Sal. sco.	FAC		7	14.			
				15.			

Total Shrub Cover: 66 **50% of Total Cover:** 33 **20% of Total Cover:** 13.2

Herbaceous Stratum	IND	DOM	Cover				
1. Cal. can.	FAC	Y	7	13.			
2. Ped. sp.	-		1	14.			
3. Cha. ang.	FACU		1	15.			
4. Eri. vag.	FACU		T	16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 9 **50% of Total Cover:** 4.5 **20% of Total Cover:** 1.8

1. Open Water — 2. Bare ground 30

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Several standing dead Pic. mar.

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	3 x 2 =	6
FAC species	59 x 3 =	177
FACU species	9 x 4 =	36
UPL species	3 x 5 =	15
Column Totals:	74 (A)	234 (B)

Prevalence Index = B/A = 3.16

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

N — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IC2

Cowardin Code: 5

HGM Classification: NA

Landform: Lowland

Local Relief: none

Microtopography:	Slope:	Aspect:
None	5	NE

HDR

SOIL

Plot No: 522

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators | Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	Oi	10YR 3/2								
3-4	Oe	10YR 2/1								
4-6	A	10YR 2/2	100	-	-	-	-	-	SILO	
6-9	B	10YR 3/3	100	-	-	-	-	-	SALO	
9-16	B	10YR 4/2	100	-	-	-	-	-	VFSALO	Frozen @ 10"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	4
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:
No hydro indicators.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR522
Wetland Status	Upland
Plot Type	WD
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.5751
Longitude (DD)	-149.85791

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR523
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Deciduous Forest
Latitude (DD)	64.57481
Longitude (DD)	-149.8619

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

Photo Type: Soils Direction: NA

PHOTO REPORT

Plot Number	HDR524
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Black Spruce Forest
Latitude (DD)	64.575
Longitude (DD)	-149.86368

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 525

Project: Totchaket Road	Date: 6/2/2022
Applicant: Department of Transportation and Public Facilities	Investigators: MA ZH
Borough/City/Location: West of Nenana	

NAD 83, Decimal Degrees

HDR

Latitude: 64.57489	Watershed: Rock Creek
Longitude: 149.86924	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	Yes
Naturally Problematic?	VEG	(SOILS)	HYDRO	Wetland Hydrology Present?	Yes
Remarks:				**Is the Sampled Area within a Wetland?**	yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: – 50% of Total Cover: – 20% of Total Cover: –

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Salix bebb.	FAC	Y	20	8. Ros aci	FACU		3
2. Salix pul.	FACW		1	9. Arc. rub.	FAC		1
3. Vac. Vit	FAC		10	10.			
4. Vac. uli	FAC	Y	50	11.			
5. Rho gro	FAC		15	12.			
6. Pop. Tre	FACU		7	13.			
7. Pic Mar	FACW		5	14.			

Total Shrub Cover: 112 50% of Total Cover: 56 20% of Total Cover: 22.4

Herbaceous Stratum	IND	DOM	Cover				
1. Ped sp.	–		T	13.			
2.				14.			
3.				15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: – 50% of Total Cover: – 20% of Total Cover: –

1. Open Water – 2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 6	x 2 =	12
FAC species 96	x 3 =	288
FACU species 10	x 4 =	40
UPL species 0	x 5 =	0
Column Totals: 112 (A)		340 (B)

Prevalence Index = B/A = 3.04

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IB2

Cowardin Code: PSS1B

HGM Classification: Depressional

Landform: Lowland

Local Relief: Concave

Microtopography:	Slope:	Aspect:
None	0	N/A

HDR

SOIL

Plot No: 525

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-4	Oe	10YR 2/1	100							
4-10	B	2.5Y 4/1	85	C.	7.5 YR 4/4	15	M, PL		SiLo	Frozen @ 9"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Primary hydro, veg, & appropriate landscape setting for problematic soil indicators.

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- X Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	Yes
NRCS Drainage Class:	SPD
Depth of Organic Soils:	4
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	9"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - depression
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes X No ___ Depth (inches): 5" weep.

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

Episaturation X Endosaturation ___

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR525
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/2/2022
NWI Classification	PSS1B
HGM	Depressional
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57489
Longitude (DD)	-149.86921

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR526
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/2/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.5748
Longitude (DD)	-149.86892

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: W

Photo Type: Vegetation Direction: E

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR
Plot No: 527

Project: Totchaket Road	Date: 6/3 /2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57453	Watershed: Rock Creek
Longitude: 149.76468	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Sal. beb.	FAC	Y	35	9. Das. fru.	FAC		3
2. Bet. pap.	FACU		10	10. Vac. vi.	FAC		5
3. Sal. arb.	FACW		3	11. Arc. rub.	FAC		5
4. Bet. gla.	FAC		15	12.			
5. Ros. aci.	FACU		10	13.			
6. Rho. gro.	FAC	Y	20	14.			
7. Rho. tom.	FACW		1	15.			

Total Shrub Cover: 108 50% of Total Cover: 54 20% of Total Cover: 21.6

Herbaceous Stratum	IND	DOM	Cover				
1. Cal. can.	FAC	Y	50	13.			
2. Cha. ang.	FACU		1	14.			
3. Rub. cha.	FACW		1	15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 52 50% of Total Cover: 26 20% of Total Cover: 10.4

1. Open Water: 0 2. Bare ground: 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Standing dead Pic. mar & Lar. lar. (burned).

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 6	x 2 =	12
FAC species 133	x 3 =	399
FACU species 21	x 4 =	84
UPL species 0	x 5 =	0
Column Totals: 160 (A)		495 (B)

Prevalence Index = B/A = 3.09

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

N — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2a

Cowardin Code: PSS1 / EM1B

HGM Classification: Flat

Landform: Lowland

Local Relief: Slight Concave

Microtopography:	Slope:	Aspect:
None	2	SE

SOIL

HDR
Plot No: 527

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-1	Oi	10YR 2/2								
1-10	Oe	10YR 2/1								Frozen @ 7"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4] (assumed)
- N Black Histic (A3)
- Y Hydrogen Sulfide (A4) 4"
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	10+
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	7"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- Y Hydrogen Sulfide Odor (C1) (w/in 12") 4"
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) slight depression
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes X No ___ Depth (inches): 5" slow ooze

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 4"

Episaturation X Endosaturation

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR527
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/3/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Open Tall Willow Shrub
Latitude (DD)	64.57453
Longitude (DD)	-149.76466

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 578

Project: Totchaket Road	Date: 6/3/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57515	Watershed: Rock Creek
Longitude: 149.76478	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
* 1. Pic. mar.	FACW		3	3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Sal. beb.	FAC	Y	15	8. Vac. vit.	FAC	Y	30
2. Rho. gro.	FAC	Y	20	9. Arc. rub.	FAC		3
3. Bet. pap.	FACU		10	10. Lin. bor.	FACU		1
4. Pic. mar.	FACW		4	11.			
5. Pop. tre.	FACU		3	12.			
6. Ros. aci.	FACU		10	13.			
7. Vac. uli.	FAC	Y	15	14.			
				15.			

Total Shrub Cover: 111 **50% of Total Cover:** 55.5 **20% of Total Cover:** 22.4

Herbaceous Stratum	IND	DOM	Cover				
1. Cha. ang.	FACU		3	13.			
2. Cor. can.	FACU		1	14.			
3. Equ. arv.	FAC	Y	15	15.			
4. Geo. liv.	FACU		1	16.			
5. Lup. arc.	FACU		1	17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 21 **50% of Total Cover:** 10.5 **20% of Total Cover:** 4.2

1. Open Water 0 — 2. Bare ground 10

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Standing dead spruce (burn).

*Combined w/Shrub stratum.

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	4 x 2 =	8
FAC species	98 x 3 =	294
FACU species	30 x 4 =	120
UPL species	0 x 5 =	0
Column Totals:	132 (A)	422 (B)

Prevalence Index = B/A = 3.20

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: U

HGM Classification: N/A

Landform: Lowland

Local Relief: Slightly convex

Microtopography: None

Slope: 2

Aspect: E

HDR

SOIL

Plot No: 528

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-2	Oi									
2-3	Oe									
3-7	A/B	10YR3/2	95	C	7.5YR3/3	5	M		VFSALO	Frozen @ 9"
7-16	B	10YR4/3	98	C	7.5YR 3/3	2	M		VFSALO	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:
No primary hydro or appropriate landscape for problematic.

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	
NRCS Drainage Class:	MWD
Depth of Organic Soils:	3
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source: -

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:
Thin zone of saturation on top of frozen layer due to pit warming.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR528
Wetland Status	Upland
Plot Type	WD
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57514
Longitude (DD)	-149.76475

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 529

Project: Totchaket Road	Date: 6/3/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57503	Watershed: Rock Creek
Longitude: 149.71790	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	NO
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: – 50% of Total Cover: – 20% of Total Cover: –

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Bet. pap.	FACU		5	8. Rho gro.	FAC	Y	15
2. Pop. tre.	FACU		7	9.			
3. Sal. beb.	FAC	Y	15	10.			
4. Pic. mar.	FACW	Y	3	11.			
5. Vac. vit.	FAC	Y	10	12.			
6. Rho. tom.	FACW	Y	5	13.			
7. She can.	FACU		5	14.			

Total Shrub Cover: 65 50% of Total Cover: 32.5 20% of Total Cover: 13

Herbaceous Stratum	IND	DOM	Cover				
1. Cha. ang.	FACU		1	13.			
2. Cor. can.	FACU	Y	3	14.			
3. Cal. can.	FAC	Y	10	15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 14 50% of Total Cover: 7 20% of Total Cover: 2.8

1.Open Water 0 2. Bare ground 20

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Standing dead spruce (burned).

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	8 x 2 =	16
FAC species	50 x 3 =	150
FACU species	21 x 4 =	84
UPL species	0 x 5 =	0
Column Totals:	79 (A)	250 (B)

Prevalence Index = B/A = 3.17

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIC2

Cowardin Code: –

HGM Classification: N/A

Landform: Low mound.

Local Relief: Convex

Microtopography:	Slope:	Aspect:
None	3	NE

HDR

SOIL

Plot No: 529

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-1	Oi									
1-2	Oe									
2-15	B	10YR 3/4	100	-	-	-	-	-	FSALO	Frozen @ 12"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	2
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source: -

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks: Profile moist but not saturated,

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR529
Wetland Status	Upland
Plot Type	WD
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57502
Longitude (DD)	-149.71787

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR530
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57494
Longitude (DD)	-149.7245

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: S

Photo Type: Vegetation Direction: N

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 531

Project: Totchaket Road	Date: 6/3/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.574933	Watershed: Rock Creek
Longitude: 149.73397	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	Yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	Yes.
Remarks:				**Is the Sampled Area within a Wetland?**	Yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None.				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. Sal. beb.	FAC	Y	50	9.			
2. Sal. sco.	FAC	Y	5	10.			
3. Pop. tre.	FACU		10	11.			
4. Bet. pap.	FACU		5	12.			
5. Ros. aci.	FACU		5	13.			
6. Pic. mar.	FACW		1	14.			
7.				15.			

Total Shrub Cover: 76 **50% of Total Cover:** 38 **20% of Total Cover:** 15.2

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Cal can.	FAC	Y	5	14.			
2. Equ. arv.	FAC	Y	5	15.			
3. Cor. can.	FACU	Y	1	16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 11 **50% of Total Cover:** 5.5 **20% of Total Cover:** 2.2

1. Open Water 0	2. Bare ground 10

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 1	x 2 =	2
FAC species 65	x 3 =	195
FACU species 21	x 4 =	84
UPL species 0	x 5 =	0
Column Totals: 87 (A)		281 (B)

Prevalence Index = B/A = 3.23

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2a

Cowardin Code: PSS1B

HGM Classification: Depressional

Landform: Depression - Lowland

Local Relief: Concave

Microtopography:	Slope:	Aspect:
None	2	N

HDR

SOIL

Plot No: 531

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-2	Oi									
2-4	Oe	10YR 2/1	100	-	-	-	-			
4-6	A	10YR 3/2	100	-	-	-	-		SILO	
6-11	B	2.5Y 4/2	85	C	7.5YR 4/4	15	M,RC		SILO	Frozen @ 9"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: Primary hydro, hyd. veg, & appropriate landscape position for problematic indicators.

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- Y Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	yes
NRCS Drainage Class:	SPD
Depth of Organic Soils:	4"
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	9"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- Y Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- Y Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2)
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes X No ___ Depth (inches): 8" - weeping

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 5"

Episaturation X Endosaturation ___

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR531
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/3/2022
NWI Classification	PSS1B
HGM	Depressional
Vegetation Type	Open Tall Willow Shrub
Latitude (DD)	64.57493
Longitude (DD)	-149.73395

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR
Plot No: 532

Project: Totchaket Road	Date: 6/3/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees — **HDR**

Latitude: 64.57468	Watershed: Rock Creek
Longitude: 149.73370	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks: Photos missing.				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present — **SUBREGION:** IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. Bet. pap.	FACU	Y	25	3.			
2. Pic. mar.	FACW		3	4.			

Total Tree Cover: 28 — 50% of Total Cover: 14 — 20% of Total Cover: 5.6

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. Aln. vir.	FAC	Y	45	9.			
2. Pic. mar.	FACW		5	10.			
3. Pop. tre.	FACU		5	11.			
4. Rho. gro.	FAC	Y	15	12.			
5. Sal. sco.	FAC		1	13.			
6. Bet. pap.	FACU	Y	15	14.			
7. Vac. vit.	FAC		7	15.			

Total Shrub Cover: 93 — 50% of Total Cover: 46.5 — 20% of Total Cover: 18.6

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Cal. can.	FAC	Y	5	14.			
2.				15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 5 — 50% of Total Cover: 2.5 — 20% of Total Cover: 1

1.Open Water — 2. Bare ground 20 litter

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	8 x 2 =	16
FAC species	73 x 3 =	219
FACU species	45 x 4 =	180
UPL species	0 x 5 =	0
Column Totals:	126 (A)	415 (B)

Prevalence Index = B/A = 3.29

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IBZa

Cowardin Code: U

HGM Classification: N/A.

Landform: Mound

Local Relief: Convex

Microtopography: None — Slope: 5 — Aspect: N

HDR

SOIL

Plot No: 532

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-2	Oi									
2-14	B	10YR 4/3	100	-	-	-	-	-	SILO	Frozen @ 8"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)[4]
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surfaces (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- ___ Depleted Below Dark Surface (A11)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depression (F8)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Alaska Color Change (TA4) Give details of color change
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox with 2.5Y Hue
- ___ Alaska Gleyed w/o Hue 5Y or Redder Underlying
- ___ AA Positive (mineral soil, 60% of horizon 4 inches thick)
- ___ Ponded/Flooded/High Water Table (12 inches or higher)
- ___ Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	2
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in 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) (w/in 12")
- ___ Dry-Season Water Table (C2)**
- ___ Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:
Dry pit.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR533
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57494
Longitude (DD)	-149.74226

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 534

Project: Totchaket Road	Date: 6/3/22
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	MA / ZH

NAD 83, Decimal Degrees

HDR

Latitude: 64.57497	Watershed: Rock Creek
Longitude: 149.75514	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	YES
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. Pic. Mar	FACW	Y	30	3.			
2. Pop Tre	FACU		5	4.			

Total Tree Cover: 35 **50% of Total Cover:** 17.5 **20% of Total Cover:** 7

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. Pic. Mar.	FACW		5	9.			
2. Rho. gno.	FAC	Y	20	10.			
3. Vac. vit.	FAC		7	11.			
4. Vib. edu.	FACU		1	12.			
5. Sal. sco.	FAC		3	13.			
6.				14.			
7.				15.			

Total Shrub Cover: 36 **50% of Total Cover:** 18 **20% of Total Cover:** 7.2

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Cor. can.	FACU	Y	3	14.			
2. Geo. liv.	FACU	Y	3	15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 6 **50% of Total Cover:** 3 **20% of Total Cover:** 1.2

1.Open Water 0 — 2. Bare ground 25 - feather moss

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	35 x 2 =	70
FAC species	30 x 3 =	90
FACU species	12 x 4 =	48
UPL species	0 x 5 =	0
Column Totals:	77 (A)	208 (B)

Prevalence Index = B/A = 2.70

Hydrophytic Vegetation Indicators:

N Dominance Test is >50%

Y Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IA2f

Cowardin Code: U

HGM Classification: N/A

Landform: Lowland

Local Relief: Flat to Sl. convex

Microtopography:	Slope:	Aspect:
None	2	N

HDR

SOIL

Plot No: 534

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	OL									
3-15	B	10YR 4/3	100	-	-	-	-	-	SiCl	Frozen @ 7"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	3
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July

**Mineral Soils 12-24 inches

**Organic Soils 12-40 inches

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

Remarks: Dry pit.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR534
Wetland Status	Upland
Plot Type	WD
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Open Black Spruce Forest
Latitude (DD)	64.57497
Longitude (DD)	-149.7551

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR535
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/3/2022
NWI Classification	PSS1/EM1B
HGM	Depressional
Vegetation Type	Open Tall Willow Shrub
Latitude (DD)	64.57473
Longitude (DD)	-149.76357

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR536
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/3/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57466
Longitude (DD)	-149.77282

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: N

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 537

Project: Totchaket Road	Date: 6/4/2022	
Applicant: Department of Transportation and Public Facilities	Investigators:	
Borough/City/Location: West of Nenana	ZH	MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57519	Watershed: Lunch Lake
Longitude: 149.66166	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover	Species	IND	DOM	Cover
1. Pic. gla.	FACU	Y	10	8. Ros. aci.	FACU		3
2. Rho. gro.	FAC	Y	25	9.			
3. Pop tre.	FACU	Y	15	10.			
4. Bet. pap.	FACU		7	11.			
5. Sal. beb.	FAC	Y	10	12.			
6. Vac. vit	FAC		3	13.			
7. Vac uli	FAC		7	14.			

Total Shrub Cover: 80 **50% of Total Cover:** 40 **20% of Total Cover:** 16

Herbaceous Stratum	IND	DOM	Cover	Species	IND	DOM	Cover
1. Equ. arv.	FAC	Y	10	13.			
2. Cor. can.	FACU		3	14.			
3. Cha. ang.	FACU	Y	5	15.			
4. Cal. can.	FAC	Y	5	16.			
5. Ped. sp.	-		1	17.			
6. Mer. pan.	FACU		3	18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 27 **50% of Total Cover:** 13.5 **20% of Total Cover:** 5.4

1. Open Water — 2. Bare ground 30 - moss

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57.1 (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	46 x 4 =	184
UPL species	0 x 5 =	0
Column Totals:	106 (A)	364 (B)

Prevalence Index = B/A = 3.43

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IIC2

Cowardin Code: U

HGM Classification: N/A

Landform: Side of low mound.

Local Relief: Slightly Convex

Microtopography: None

Slope: 7

Aspect: E

HDR

SOIL

Plot No: 537

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-1	Oi									
1-7	A	10YR2/2	100	-	-	-	-	-	SiLo	
7-15	B	10YR4/3	40	-	-	-	-	-	SiLo	Frozen @ 9"
		10YR4/1	60	-	-	-	-	-	SiLo	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	MWD
Depth of Organic Soils:	/
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

Dry pit.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR537
Wetland Status	Upland
Plot Type	WD
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57519
Longitude (DD)	-149.66163

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: W

Photo Type: Vegetation Direction: E

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 538

Project: Totchaket Road	Date: 6/4/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57509	Watershed: Lynch Lake
Longitude: 149.66092	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	Yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	Yes
Remarks:				**Is the Sampled Area within a Wetland?**	Yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. Bet. gla.	FAC	Y	40	9.			
2. Sal. pul.	FACW		10	10.			
3. Vac. uli.	FAC	Y	15	11.			
4.				12.			
5.				13.			
6.				14.			
7.				15.			

Total Shrub Cover: 65 50% of Total Cover: 32.5 20% of Total Cover: 13

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Cal. can.	FAC	Y	65	14.			
2. Rub. arc.	FACU		3	15.			
3. Rub. cha.	FACW		3	16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 71 50% of Total Cover: 35.5 20% of Total Cover: 14.2

1. Open Water 0 — 2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	13 x 2 =	26
FAC species	120 x 3 =	360
FACU species	3 x 4 =	12
UPL species	0 x 5 =	0
Column Totals:	136 (A)	398 (B)

Prevalence Index = B/A = 2.93

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

Y/N — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

OTS IIB2f

Cowardin Code: PSS1/EM1B

HGM Classification: Flat

Landform: Lowland

Local Relief: Concave (Slightly)

Microtopography:	Slope:	Aspect:
Humm. mod.	1	E

HDR

SOIL

Plot No: 538

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-4	Oe	10YR 2/2								
4-8	Oa	10YR 2/1								
8-10	A	2.5Y 2/1	100	-	-	-	-	-	SILO	
10-15	B	2.5Y 4/2	70	C	7.5YR 3/4	30	M, PL		SILO	Frozen @ 15

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	YES
NRCS Drainage Class:	PD
Depth of Organic Soils:	8
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	15

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

- N Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- - Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - Flat
- - Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4) - Hummocked.
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes X No ____ Depth (inches): 5" - weep.

Saturation Present? (includes capillary fringe) Yes Y No ____ Depth (inches): 3"

Episaturation X Endosaturation ____

Water Source: Precip.

Wetland Hydrology Present? YES

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR538
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/4/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Open Tall Alder Willow Shrub
Latitude (DD)	64.57508
Longitude (DD)	-149.66089

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR
Plot No: 539

Project: Totchaket Road	Date: 6/4/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57472	Watershed: Lynch Lake
Longitude: 149.69439	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: FAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. Bet. pap.	FACU		15	9.			
2. Sal. beb.	FAC		5	10.			
3. Rho. gro.	FAC	Y	20	11.			
4. Pop. tre.	FACU	Y	10	12.			
5. Pic. mar.	FACW		5	13.			
6. Vac. vit.	FAC	Y	35	14.			
7. Ros. ac.	FACU	Y	3	15.			

Total Shrub Cover: 93 50% of Total Cover: 46.5 20% of Total Cover: 18.6

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Cha. ang.	FACU	Y	3	14.			
2. Car. big.	FAC		1	15.			
3. Cal. can.	FAC	Y	3	16.			
4.		Y		17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 7 50% of Total Cover: 3.5 20% of Total Cover: 1.4

1. Open Water 0 — 2. Bare ground 15 - moss.

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Standing dead spruce (burn).

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	5 x 2 =	10
FAC species	64 x 3 =	192
FACU species	31 x 4 =	124
UPL species	0 x 5 =	0
Column Totals:	100 (A)	326 (B)

Prevalence Index = B/A = 3.26

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

ZB2

Cowardin Code: P

HGM Classification: N/A

Landform: Lowland

Local Relief: Concave

Microtopography:	Slope:	Aspect:
Non	2	E

HDR

SOIL

Plot No: 539

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-1	Oi									
1-6	B1	10YR 3/3	100	-	-	-	-	-	FSAL	
6-18	B2	7.5YR 3/4	100	-	-	-	-	-	VFSALO	Frozen @ 18

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	1
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - depression
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

Profile moist but not saturated.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR539
Wetland Status	Upland
Plot Type	WD
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57472
Longitude (DD)	-149.69436

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 540

Project: Totchaket Road	Date: 6/4/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	2H MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57473	Watershed: Lynch Lake
Longitude: 149.67779	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	No
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. Pop. tre.	FACU	Y	15	3.			
2.				4.			

Total Tree Cover: 15 — 50% of Total Cover: 7.5 — 20% of Total Cover: 3

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Pop. tre.	FACU	Y	10	9. Sal. pul.	FACW		5
2. Pic. gla.	FACU		5	10.			
3. Pic. mar.	FACW		1	11.			
4. Vac. vit.	FAC	Y	10	12.			
5. Bet. pap.	FACU		5	13.			
6. Sal. sco.	FAC	Y	10	14.			
7. Rho. gro.	FAC		5	15.			
8. Sal. beb.	FAC	Y	16				

Total Shrub Cover: 61 — 50% of Total Cover: 30.5 — 20% of Total Cover: 12.2

Herbaceous Stratum	IND	DOM	Cover				
1. Ped. sp.	-		T	14.			
2. Cor. can.	FACU	Y	3	15.			
3. Cal. can.	FAC	Y	3	16.			
4. Lyc. cla.	FACU		T	17.			
5. Dip. com	FACU		T	18.			
6. Cha. ang.	FACU	Y	3	19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 11 — 50% of Total Cover: 5.5 — 20% of Total Cover: 2.2

1. Open Water 0 — 2. Bare ground 20 - litter

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.9 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	6 x 2 =	12
FAC species	38 x 3 =	114
FACU species	43 x 4 =	172
UPL species	0 x 5 =	0
Column Totals:	87 (A)	298 (B)

Prevalence Index = B/A = 3.43

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IB3

Cowardin Code: U

HGM Classification: NA

Landform: Swale

Local Relief: Concave

Microtopography:	Slope:	Aspect:
None	3	SW

HDR

SOIL

Plot No: 540

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	Soil Matrix %	Redox Features Type[1]	Redox Features Color	Redox Features %	Redox Features Loc[2]	Mod[3]	Texture	Horizon Comments
0-2	Oi	10YR 2/2	100	—	—	—	—	—	—	
2-18	B	2.5Y 4/3	100	—	—	—	—	—	—	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- No Histosol or Histel (A1)
- No Histic Epipedon (A2)[4]
- No Black Histic (A3)
- No Hydrogen Sulfide (A4)
- No Thick Dark Surfaces (A12)
- No Alaska Gleyed (A13)
- No Alaska Redox (A14)
- No Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- No Depleted Below Dark Surface (A11)
- No Depleted Matrix (F3)
- No Redox Dark Surface (F6)
- No Depleted Dark Surface (F7)
- No Redox Depression (F8)
- No Red Parent Material (F21)
- No Very Shallow Dark Surface (F22)
- No Alaska Color Change (TA4) Give details of color change
- No Alaska Alpine Swales (TA5)
- No Alaska Redox with 2.5Y Hue
- No Alaska Gleyed w/o Hue 5Y or Redder Underlying
- No AA Positive (mineral soil, 60% of horizon 4 inches thick)
- No Ponded/Flooded/High Water Table (12 inches or higher)
- No Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	2
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- No Surface Water (A1)
- No High Water Table (A2)
- No Saturation (A3)
- No Water Marks (B1)
- No Sediment Deposits (B2)
- No Drift Deposits (B3)
- No Algal Mat or Crust (B4)
- No Iron Deposits (B5)
- No Surface Soil Cracks (B6)
- No Inundation Visible on Aerial Imagery (B7)
- No Sparsely Vegetated Concave Surface (B8)
- No Marl Deposits (B15)
- No Hydrogen Sulfide Odor (C1) (w/in 12")
- No Dry-Season Water Table (C2)**
- No Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? YES

Secondary Indicators (2 or more required)

- No Water-stained Leaves (B9)
- No Drainage Patterns (B10)
- No Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- ~~No~~ Presence of Reduced Iron (C4) Too dry
- No Salt Deposits (C5)
- No Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - Swale
- No Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- No Microtopographic Relief (D4)
- No FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

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

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

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

Dry pit

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR540
Wetland Status	Upland
Plot Type	WD
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.5747
Longitude (DD)	-149.67777

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 541

Project: Totchaket Road	Date: 6/4/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	2H / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57448	Watershed: Lunch Lake
Longitude: 149.67243	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Bet pap	FACW		5	9. Sal beb	FAC		10
2. Pop. tre	FACU	Y	15	10. Lin bor	FACU		1
3. Rho gro	FAC	Y	30	11.			
4. She can.	FACW		1	12.			
5. Vac vit	FAC		5	13.			
6. Pic. mar.	FACW		1	14.			
7. Arc. uva	UPL		3	15.			

Total Shrub Cover: 78 50% of Total Cover: 39 20% of Total Cover: 15.6

Herbaceous Stratum	IND	DOM	Cover				
1. Cor can	FACW		1	13.			
2. Ped. sp.	—		1	14.			
3. Cal can.	FAC	Y	7	15.			
4. Unknown graminoid	—	Y	1	16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 10 50% of Total Cover: 5 20% of Total Cover: 2

1. Open Water 0 — 2. Bare ground 15

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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	1 x 2 =	2
FAC species	59 x 3 =	177
FACU species	23 x 4 =	92
UPL species	3 x 5 =	15
Column Totals:	86 (A)	286 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

Y/N — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: —

HGM Classification: N/A

Landform: Lowland

Local Relief: Concave

Microtopography:	Slope:	Aspect:
None	1%	S.

SOIL

Plot No: HDR 541

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-1	Oi									
1-2	A	10YR 3/1	100	-	-	-	-	-	SiLO	
2-15	B	10YR 4/3	100	-	-	-	-	-	SiLO	Frozen @ 15"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	1
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - depression
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source: -

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR541
Wetland Status	Upland
Plot Type	WD
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57448
Longitude (DD)	-149.6724

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 542

Project: Totchaket Road	Date: 6/4/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.575665	Watershed: Lynch Lake
Longitude: 149.669441	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. Pop. tre.	FACU	Y	5	3.			
2.				4.			

Total Tree Cover: 5 **50% of Total Cover:** 2.5 **20% of Total Cover:** 1

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Pop. tre.	FACU	Y	20	8. Vac. vit.	FAC		7
2. Rho. gro.	FAC	Y	15	9. Vac. uva.	UPL		3
3. Vac. vit.	FAC		5	10. Sal. beb.	FAC	Y	10
4. Ros. aci.	FACU		3	11. Pic. gla.	FACU		5
5. Sal. pul.	FACW		5	12.			
6. Pic. mar.	FACW		3	13.			
7. Bet. pap.	FACU		3	14.			
				15.			

Total Shrub Cover: 79 **50% of Total Cover:** 39.5 **20% of Total Cover:** 15.8

Herbaceous Stratum	IND	DOM	Cover				
1. Cor. can.	FACU	Y	5	13.			
2. Equ. arv.	FAC	Y	3	14.			
3. Cal. can.	FAC	Y	5	15.			
4. Dip. com.	FACU		1	16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 14 **50% of Total Cover:** 7 **20% of Total Cover:** 2.8

1. Open Water — 2. Bare ground 15 litter.

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57.1 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	8 x 2 =	16
FAC species	45 x 3 =	135
FACU species	42 x 4 =	168
UPL species	3 x 5 =	15
Column Totals:	98 (A)	334 (B)

Prevalence Index = B/A = 3.41

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IB2

Cowardin Code: U

HGM Classification: N/A

Landform: Lowland

Local Relief: Concave

Microtopography:	Slope:	Aspect:
No	0	N/A

SOIL

Plot No: HDR 542

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-1	Oi	10YR 6/1	100	-	-	-	-	-		Ash & organics.
1-18	B	10YR 4/4	100	-	-	-	-	-	SiCL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	1
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4) too dry
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - depression
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks: Dry pit.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR542
Wetland Status	Upland
Plot Type	WD
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57564
Longitude (DD)	-149.66939

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 543

Project: Totchaket Road	Date: 6/5/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH | MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.574880	Watershed: Rock Creek
Longitude: 149.97622	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. Pic mar	FACW	Y	5	3.			
2.				4.			

Total Tree Cover: 5 **50% of Total Cover:** 2.5 **20% of Total Cover:** 1

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Pop tre	FACU		10	8. Pic mar	FACW		1
2. Sal beb	FAC	Y	15	9. Bet gla	FAC		1
3. Ros aci	FACU		5	*10. Cor. can.	FACU		1
4. Vac vit	FAC		10	*11. Cal. can.	FAC		3
5. Vac uli	FAC	Y	30	12.			
6. Bet pap	FACU		1	13.			
7. Rho gro	FAC		7	14.			
				15.			

Total Shrub Cover: 84 **50% of Total Cover:** 42 **20% of Total Cover:** 16.8

Herbaceous Stratum	IND	DOM	Cover				
1. *Cor can	FACU		+~~1~~	13.			
2. *Cal. can.	FAC		~~2~~	14.			
3.				15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: **50% of Total Cover:** **20% of Total Cover:**

1. Open Water 0	2. Bare ground 15

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

*Moved to Shrub stratum due to less than 5% total cover in herbaceous stratum.

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 6	x 2 =	12
FAC species 66	x 3 =	198
FACU species 17	x 4 =	68
UPL species 0	x 5 =	0
Column Totals: 89 (A)		278 (B)

Prevalence Index = B/A = 3.12

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y/N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: U

HGM Classification: N/A

Landform: Lowland.

Local Relief: None

Microtopography:	Slope:	Aspect:
None	2	NE

HDR

SOIL

Plot No: 543

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-2	O;	10YR 2/2	100	—	—	—	—	—	—	
2-4	A	10YR 2/1	100	—	—	—	—	—	SILO	
4-17	B	10YR 4/2	60	—	—	—	—	—	STLO	
		10YR 3/3	40	—	—	—	—	—	SILO	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- No Histosol or Histel (A1)
- No Histic Epipedon (A2)[4]
- No Black Histic (A3)
- No Hydrogen Sulfide (A4)
- No Thick Dark Surfaces (A12)
- No Alaska Gleyed (A13)
- No Alaska Redox (A14)
- No Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- No Depleted Below Dark Surface (A11)
- No Depleted Matrix (F3)
- No Redox Dark Surface (F6)
- No Depleted Dark Surface (F7)
- No Redox Depression (F8)
- No Red Parent Material (F21)
- No Very Shallow Dark Surface (F22)
- No Alaska Color Change (TA4) Give details of color change
- No Alaska Alpine Swales (TA5)
- No Alaska Redox with 2.5Y Hue
- No Alaska Gleyed w/o Hue 5Y or Redder Underlying
- No AA Positive (mineral soil, 60% of horizon 4 inches thick)
- No Ponded/Flooded/High Water Table (12 inches or higher)
- No Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	2
Restrictive Layer Type:	—
Restrictive Layer Depth:	—

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- No Surface Water (A1)
- No High Water Table (A2)
- No Saturation (A3)
- No Water Marks (B1)
- No Sediment Deposits (B2)
- No Drift Deposits (B3)
- No Algal Mat or Crust (B4)
- No Iron Deposits (B5)
- No Surface Soil Cracks (B6)
- No Inundation Visible on Aerial Imagery (B7)
- No Sparsely Vegetated Concave Surface (B8)
- No Marl Deposits (B15)
- No Hydrogen Sulfide Odor (C1) (w/in 12")
- No Dry-Season Water Table (C2)**
- No Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- No Water-stained Leaves (B9)
- No Drainage Patterns (B10)
- No Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- No Presence of Reduced Iron (C4)
- No Salt Deposits (C5)
- No Stunted or Stressed Plants (D1)
- No Geomorphic Position (D2)
- No Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- No Microtopographic Relief (D4)
- Yes FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

Soil is very moist, but not saturated.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR543
Wetland Status	Upland
Plot Type	WD
Plot Date	6/4/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57487
Longitude (DD)	-149.9762

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR544
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/5/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57504
Longitude (DD)	-149.98813

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 545

Project: Totchaket Road	Date: 6/15/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.57507	Watershed: Rock Creek
Longitude: 150.00122	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. Bet. pap.	FACU	Y	45	9.			
2. Pop. tre.	FACU	Y	5	10.			
3. Vac. vit.	FAC		10	11.			
4. Sal. heb.	FAC		15	12.			
5. Pic. gla.	FACU		1	13.			
6. Sal. sco.	FAC		1	14.			
7. Rho. gro.	FAC		3	15.			

Total Shrub Cover: 80 50% of Total Cover: 40 20% of Total Cover: 16

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Cal. can.	FAC	Y	15	14.			
2. Equ. arv.	FAC	Y	10	15.			
3. Cha. ang.	FACU	Y	3	16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 28 50% of Total Cover: 14 20% of Total Cover: 5.6

1. Open Water 0 — 2. Bare ground 20 - litter.

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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	54 x 3 =	162
FACU species	54 x 4 =	216
UPL species	0 x 5 =	0
Column Totals:	108 (A)	378 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IIB1

Cowardin Code: P

HGM Classification: N/A

Landform: Lowland

Local Relief: Slightly convex

Microtopography:	Slope:	Aspect:
Norm	5	N

SOIL

Plot No: HDR 545

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	Oi									
3-7	A	2.5Y 3/2	100	-	-	-	-	-	SILO	
7-16	A/B	2.5Y 3/1	90						SILO	
		2.5Y 5/2	8	C	7.5YR 4/4	2	M		SILO	Depletion w/redox.
										Frozen @ 14.

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks: No primary hydro or appropriate landscape for problematic indicators.

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Hydric Soils Present?	No
NRCS Drainage Class:	MWD
Depth of Organic Soils:	3
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- - Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks: Dry pit

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR545
Wetland Status	Upland
Plot Type	WD
Plot Date	6/5/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57507
Longitude (DD)	-150.0012

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR546
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/5/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.57486
Longitude (DD)	-150.01309

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR
Plot No: 547

Project: Totchaket Road	Date: 6/5/22
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	MA / ZH

NAD 83, Decimal Degrees

HDR

Latitude: 64.597168	Watershed: Kantishna River
Longitude: 150.06324	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Aln. vir.	FAC	Y	20	8. Bet. papp	FACW		15
2. Bet gla	FAC	Y	25	9. Rhod/gro	FAC		3
3. Sal. pul	FACW		5	10.			
4. Rho tom	FACW		3	11.			
5. Pas. fru	FAC		1	12.			
6. Cha cal	FACW		10	13.			
7. Vac uli	FAC		10	14.			
				15.			

Total Shrub Cover: 78 50% of Total Cover: 39 20% of Total Cover: 15.6

Herbaceous Stratum	IND	DOM	Cover				
1. Cal can	FAC	Y	15	13.			
2. Eri Vag	FACW	Y	55	14.			
3.				15.			
4.				16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 70 50% of Total Cover: 35 20% of Total Cover: 14

1.Open Water 0	2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 73	x 2 =	146
FAC species 74	x 3 =	222
FACU species 1	x 4 =	4
UPL species 0	x 5 =	0
Column Totals: 148 (A)		372 (B)

Prevalence Index = B/A = 2.51

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: PSS1/EM1B

HGM Classification: Flat

Landform: terrace

Local Relief: Flat to concave

Microtopography:	Slope:	Aspect:
Tussock	2%	N

SOIL

Plot No: HDR 547

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-10	Oe	—	—	—	—	—	—	—	—	Frozen at 1"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

No Histosol or Histel (A1)	No Thick Dark Surfaces (A12)
✓ Histic Epipedon (A2)[4] (assumed)	No Alaska Gleyed (A13)
No Black Histic (A3)	No Alaska Redox (A14)
No Hydrogen Sulfide (A4)	No Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

No Depleted Below Dark Surface (A11)	No Alaska Color Change (TA4) Give details of color change
No Depleted Matrix (F3)	No Alaska Alpine Swales (TA5)
No Redox Dark Surface (F6)	No Alaska Redox with 2.5Y Hue
No Depleted Dark Surface (F7)	No Alaska Gleyed w/o Hue 5Y or Redder Underlying
No Redox Depression (F8)	No AA Positive (mineral soil, 60% of horizon 4 inches thick)
No Red Parent Material (F21)	No Ponded/Flooded/High Water Table (12 inches or higher)
No Very Shallow Dark Surface (F22)	No Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	Yes
NRCS Drainage Class:	Pd
Depth of Organic Soils:	10"+
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	1"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

Y Surface Water (A1)	No Inundation Visible on Aerial Imagery (B7)
No High Water Table (A2)	No Sparsely Vegetated Concave Surface (B8)
Y Saturation (A3)	No Marl Deposits (B15)
No Water Marks (B1)	No Hydrogen Sulfide Odor (C1) (w/in 12")
No Sediment Deposits (B2)	No Dry-Season Water Table (C2)**
No Drift Deposits (B3)	No Other (Explain in Remarks)
No Algal Mat or Crust (B4)	
No Iron Deposits (B5)	Are Climatic/Hydrologic Conditions on Site
No Surface Soil Cracks (B6)	Typical for this time of Year? YES

Secondary Indicators (2 or more required)

No Water-stained Leaves (B9)	
No Drainage Patterns (B10)	
No Oxidized Rhizospheres along Living Roots (C3)(w/in 12")	
— Presence of Reduced Iron (C4)	
No Salt Deposits (C5)	
No Stunted or Stressed Plants (D1)	
Y Geomorphic Position (D2) – Slight concave	
Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)	
Y Microtopographic Relief (D4) Tussock-y	
Y FAC-Neutral Test (D5)	

Field Observations (inches from ground surface)

Surface Water Present?	Yes ✓	No ___	Depth (inches): 2"	
Water Table Present?	Yes ___	No ✓	Depth (inches): —	
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 1"	
	Episaturation X	Endosaturation ___		

Water Source: Predp

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks: 1-2" surface water between tussocks

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR547
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/5/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Low Shrub Tundra
Latitude (DD)	64.59767
Longitude (DD)	-150.06321

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 54B

Project: Totchaket Road	Date: 6/6/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.59749	Watershed: Kantishna River
Longitude: 150.06292	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Bet. pap.	FACU		5	8. Vac. vit.	FAC		15
2. Pop. tre.	FACU	Y	40	9.			
3. Aln. vir.	FAC		7	10.			
4. Sal. bebb.	FAC		5	11.			
5. Pic. mar.	FACW		1	12.			
6. Ros. aci.	FACU		3	13.			
7. Rho. & lod.	FAC	Y	20	14.			

Total Shrub Cover: 96 **50% of Total Cover:** 48 **20% of Total Cover:** 19.2

Herbaceous Stratum	IND	DOM	Cover				
1. Equ. arv.	FAC	Y	30	13.			
2. Cha. ang.	FACU		1	14.			
3. Mer. pan.	FACU		1	15.			
4. Ste. cal.	FACW		1	16.			
5. Unknown graminoid	–		3	17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 36 **50% of Total Cover:** 18 **20% of Total Cover:** 7.2

1. Open Water 0 — 2. Bare ground 20 litter.

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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	2 x 2 =	4
FAC species	77 x 3 =	231
FACU species	50 x 4 =	200
UPL species	0 x 5 =	0
Column Totals:	129 (A)	435 (B)

Prevalence Index = B/A = 3.37

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y/N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: —

HGM Classification: N/A

Landform: Lowland

Local Relief: Convex

Microtopography:	Slope:	Aspect:
None	35	N

SOIL

Plot No: HDR 548

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	Oi									
3-9	B1	10YR 3/2	100	-	-	-	-	-	SILO	
9-20	B2	2.5Y 4/1	100	-	-	-	-	-	FSALO	Frozen @ 20

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	3
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks: No hydro indicators. Dry p.i.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR548
Wetland Status	Upland
Plot Type	WD
Plot Date	6/6/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.59749
Longitude (DD)	-150.06289

Photo Type: Soils Direction: NA

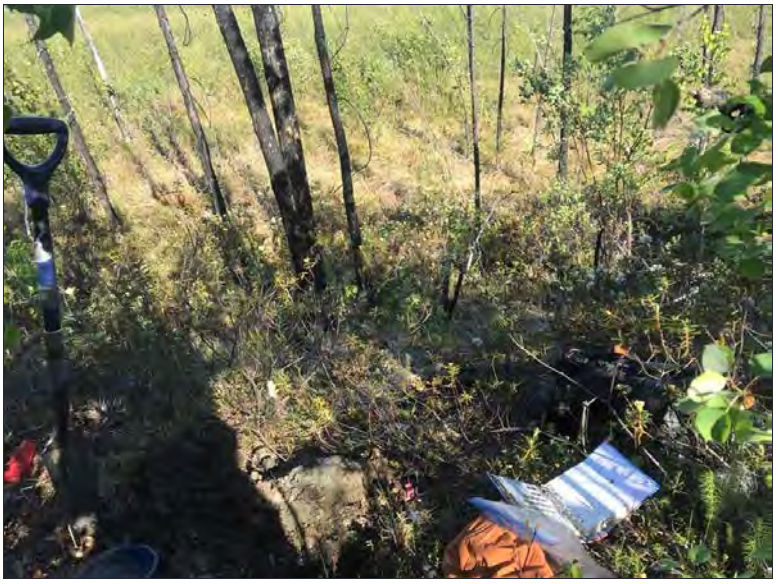

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR549
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.59721
Longitude (DD)	-150.06134

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: W

Photo Type: Vegetation Direction: E

WETLAND DETERMINATION DATA FORM – Alaska Region

Plot No: HDR 550

Project: Totchaket Road	Date: 6/16/2020
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	2H / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.59622	Watershed: Kantishna River
Longitude: 150.06013	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	Yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	Yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Bet. gla.	FAC	Y	10	8. Bet. pap.	FACU		1
2. Sal. pul.	FACW	Y	5	9. Sal. arb.	FACW		1
3. Rho. gro.	FAC	Y	7	10. Aln. vir.	FAC	Y	7
4. Rho. ferr.	FACW	Y	10	11. Sal. beb.	FAC	Y	5
5. Cha. cal.	FACW		3	12. Pic. mar.	FACW		1
6. Vac. uli.	FAC		5	13.			
7. Vac. vit.	FAC		5	14.			

Total Shrub Cover: 60 **50% of Total Cover:** 30 **20% of Total Cover:** 12

Herbaceous Stratum	IND	DOM	Cover				
1. Eri. vag.	FACW	Y	45	13.			
2. Rub. cha.	FACW	Y	10	14.			
3. Equ. arv.	FAC		3	15.			
4. Cal. can.	FAC		5	16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 63 **50% of Total Cover:** 31.5 **20% of Total Cover:** 12.6

1. Open Water 0 — 2. Bare ground 7

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 75	x 2 =	150
FAC species 47	x 3 =	141
FACU species 1	x 4 =	4
UPL species 0	x 5 =	0
Column Totals: 123 (A)		295 (B)

Prevalence Index = B/A = 2.40

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IIB2

Cowardin Code: PSS1/EM1B

HGM Classification: Flat

Landform: Lowland

Local Relief: Concave

Microtopography:	Slope:	Aspect:
Tussock	1	N

SOIL

Plot No: HDR 550

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-6	Oi	10YR 3/1	-	-	-	-	-	-	-	
6-9	Oe	↓	-	-	-	-	-	-	-	Frozen @ 6"
9-12	A	10YR 2/2	-	-	-	-	-	-	SALO	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	9
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	6"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

N Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) – Dep/Swale
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4) hummocky
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR550
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/6/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Low Shrub Tundra
Latitude (DD)	64.59621
Longitude (DD)	-150.0601

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 551

Project: Totchaket Road	Date: 6/6/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.596645	Watershed: Kantishna River
Longitude: 150.059558	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	Yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	Yes
Remarks:				**Is the Sampled Area within a Wetland?**	Yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Bet. pap.	FACW	Y	15	9. Pic. mar.	FACW		3
2. Sal. bebb.	FAC	Y	15	10. Aln. vir.	FAC		3
3. Sal. pol.	FACW		3	11. Sal. gla.	FAC		3
4. Pop. tre.	FACU		3	12.			
5. Rho. gro.	FAC		7	13.			
6. Vac. uli.	FAC	Y	10	14.			
7. Ros. aci.	FACU		1	15.			
8. Vac. vit.	FAC		1				

Total Shrub Cover: 64 **50% of Total Cover:** 32 **20% of Total Cover:** 12.8

Herbaceous Stratum	IND	DOM	Cover				
1. Cal. can.	FAC	Y	15	13.			
2. Rub. cha.	FACW		1	14.			
3. Eri. vag.	FACW		5	15.			
4. Equ. arv.	FAC		3	16.			
5. Equ. sci.	FACU		1	17.			
6. Cha. ang.	FACU		1	18.			
7. Car. vag.	OBL		1	19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 27 **50% of Total Cover:** 13.5 **20% of Total Cover:** 5.4

1. Open Water 0 — 2. Bare ground 10

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 1	x 1 =	1
FACW species 12	x 2 =	24
FAC species 57	x 3 =	171
FACU species 21	x 4 =	84
UPL species 0	x 5 =	0
Column Totals: 91 (A)		280 (B)

Prevalence Index = B/A = 3.08

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IB2

Cowardin Code: PSS1B

HGM Classification: Flat

Landform: Lowland

Local Relief: Concave

Microtopography:	Slope:	Aspect:
hum-hmm	2	NE

SOIL

Plot No: HDR 551

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	Oi									
3-8	Oe									
8-10	A/B	5Y 4/1	80	C	7.5YR 4/4	10	M,RC		SiCl	Frozen @ 10
				C	7.5YR 3/4	10	↓			

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- Y Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	8
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	10"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- ___ Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- Y Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- ___ Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) – low area
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- X Microtopographic Relief (D4) – mod hummo
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes X No ___ Depth (inches): 8 – slow weep

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 6

Episaturation X Endosaturation

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR551
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/6/2022
NWI Classification	PSS1B
HGM	Flat
Vegetation Type	Low Shrub Tundra
Latitude (DD)	64.59664
Longitude (DD)	-150.05953

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 552

Project: Totchaket Road	Date: 6/6/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.59642	Watershed: Kantishna River
Longitude: 150.05904	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. Pop. tre.	FACU	Y	35	9.			
2. Sal. beb.	FAC		15	10.			
3. Vac. vit.	FAC	Y	20	11.			
4. Pic. mar.	FACW		3	12.			
5. Pop. bal.	FACU		1	13.			
6. Bet. pap.	FACU		10	14.			
7. Vac. uva.	UPL		5	15.			

Total Shrub Cover: 89 **50% of Total Cover:** 44.5 **20% of Total Cover:** 17.8

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Equ. arv.	FAC	Y	3	14.			
2. Cha. ang.	FACU	Y	5	15.			
3. Cal. can.	FAC	Y	5	16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 13 **50% of Total Cover:** 6.5 **20% of Total Cover:** 2.6

1. Open Water 0	2. Bare ground 15

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 3	x 2 =	6
FAC species 43	x 3 =	129
FACU species 51	x 4 =	204
UPL species 5	x 5 =	25
Column Totals: 102 (A)		364 (B)

Prevalence Index = B/A = 3.58

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: U

HGM Classification: N/A

Landform: Low ridge

Local Relief: Convex

Microtopography:	Slope:	Aspect:
None	5	N

HDR

SOIL

Plot No: 552

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-2	Oi									
2-11	B	7.5YR 3/3	100	-	-	-	-	-	SILO	
11-18	B_2	10YR 3/4	100	-	-	-	-	-	SALO	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	2
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation Endosaturation

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

Dry p.t.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR552
Wetland Status	Upland
Plot Type	WD
Plot Date	6/6/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.59642
Longitude (DD)	-150.059

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR553
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.59626
Longitude (DD)	-150.05839

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR554
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.5961
Longitude (DD)	-150.0581

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: W

Photo Type: Vegetation Direction: E

PHOTO REPORT

Plot Number	HDR555
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Open Tall Willow Shrub
Latitude (DD)	64.59572
Longitude (DD)	-150.0568

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 556

Project: Totchaket Road	Date: 6/6/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.59547	Watershed: Kantishna River
Longitude: 150.05659	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			YES	Hydrophytic Vegetation Present?	yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover	8. Pic.mar.	FACW		3
1. Aln. vir.	FAC	Y	35	9.			
2. Rho. gro.	FAC	Y	50	10.			
3. Vac. oli.	FAC		15	11.			
4. Bet. pap.	FACU		3	12.			
5. Ros. aci.	FACU		3	13.			
6. Vac. vit.	FAC		5	14.			
7. Sal. beb.	FAC		5	15.			

Total Shrub Cover: 119 50% of Total Cover: 59.5 20% of Total Cover: 23.8

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Car. big.	FAC	Y	15	14.			
2. Equ. arv.	FAC	Y	5	15.			
3. Car. vag.	OBL		5	16.			
4. Equ. sci.	FACU		1	17.			
5. Equ. sci.			1	18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 26 50% of Total Cover: 13 20% of Total Cover: 5.2

1. Open Water 0	2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 5	x 1 =	5
FACW species 3	x 2 =	6
FAC species 130	x 3 =	390
FACU species 7	x 4 =	28
UPL species 0	x 5 =	0
Column Totals: 145 (A)		429 (B)

Prevalence Index = B/A = 2.96

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

N — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: PSS1/3B

HGM Classification: Flat

Landform: Lowland

Local Relief: none

Microtopography:	Slope:	Aspect:
Mod hum	2	N

SOIL

Plot No: HDR 556

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	Oi									
3-6	Oe									
6-8	Oa									
8-12	Bg	N 4/1	80	C	7.5YR 4/4	20	M,RC		SiCl	Frozen @ 10"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- ~ Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- ~ Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- Y Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- ~ Alaska Redox with 2.5Y Hue
- ~ Alaska Gleyed w/o Hue 5Y or Redder Underlying
- ~ AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	8
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	10"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- Y Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- Y Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2)
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4) - hummocks
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes X No ___ Depth (inches): 9" - weep

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 7

Episaturation X Endosaturation ___

Water Source: Precip

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR556
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/6/2022
NWI Classification	PSS1/3B
HGM	Flat
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.59547
Longitude (DD)	-150.05656

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 557

Project: Totchaket Road	Date: 6/6/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.59531	Watershed: Kantishna River
Longitude: 150.05629	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — **50% of Total Cover:** — **20% of Total Cover:** —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Rho. gro.	FAC	Y	30	8. Ros. aci.	FACU		5
2. Pic. mar.	FACW	Y	20	9.			
3. Vac. vit.	FAC		7	10.			
4. Bet. pap.	FACU		15	11.			
5. Pop. tre.	FACU		3	12.			
6. Sal. pul.	FACW		3	13.			
7. Sal. beb.	FAC		7	14.			

Total Shrub Cover: 90 **50% of Total Cover:** 45 **20% of Total Cover:** 18

Herbaceous Stratum	IND	DOM	Cover				
1. Equ. sci.	FACU		1	13.			
2. Cha. ang.	FACU	Y	5	14.			
3. Equ. arv.	FAC	Y	10	15.			
4. Mer. pan.	FACU		1	16.			
5. Cal. can.	FAC		3	17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 20 **50% of Total Cover:** 10 **20% of Total Cover:** 4

1. Open Water 0 — 2. Bare ground 15

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 23	x 2 =	46
FAC species 57	x 3 =	171
FACU species 30	x 4 =	120
UPL species 0	x 5 =	0
Column Totals: 110 (A)		337 (B)

Prevalence Index = B/A = 3.06

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: U

HGM Classification: N/A

Landform: Low Mound.

Local Relief: Convex

Microtopography: Non | Slope: 1 | Aspect: N

HDR

SOIL

Plot No: 557

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-6	O i									
6-8	A	10YR 3/2	100	-	-	-	-	-	SILO	
8-19	B	10YR 3/4	70	-	-	-	-	-	SILO	
		2.5Y 4/2	30	-	-	-	-	-	SILO	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	No
NRCS Drainage Class:	MWD
Depth of Organic Soils:	6
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks: Profile very moist but not saturated. Slightly thixo.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR557
Wetland Status	Upland
Plot Type	WD
Plot Date	6/6/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.59531
Longitude (DD)	-150.0562

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR558
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	PSS1B
HGM	Flat
Vegetation Type	Open Tall Willow Shrub
Latitude (DD)	64.59476
Longitude (DD)	-150.0548

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR559
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.59492
Longitude (DD)	-150.05487

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR560
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	PSS1B
HGM	Flat
Vegetation Type	Open Tall Willow Shrub
Latitude (DD)	64.59437
Longitude (DD)	-150.05373

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR561
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.59416
Longitude (DD)	-150.0534

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR562
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.594
Longitude (DD)	-150.05281

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR563
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.5928
Longitude (DD)	-150.05033

Photo Type: Vegetation Direction: S

Photo Type: Vegetation Direction: N

Photo Type: Direction:

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 564

Project: Totchaket Road	Date: 6/16/2020
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

HDR

NAD 83, Decimal Degrees

Latitude:	Watershed: Kantishna River
Longitude:	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Rho gro	FAC	Y	35	8. Bet pap	FACU		3
2. Pop tre	FACU		1	9. Bet nan	FAC		5
3. Sal pul	FACW		7	10.			
4. Sal beb	FAC		3	11. Equ arv			
5. Vac vit	FAC		5	12.			
6. Vac uli	FAC		5	13.			
7. Pic mar	FACW		3	14.			
				15.			

Total Shrub Cover: 67 50% of Total Cover: 33.5 20% of Total Cover: 13.4

Herbaceous Stratum	IND	DOM	Cover				
1. Eri vag	FACW	Y	25	13.			
2. Rub cha	FACW		3	14.			
3. Cha ang	FACU		1	15.			
4. Cal can	FAC	Y	10	16.			
5. Equi arv	FAC		1	17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 40 50% of Total Cover: 20 20% of Total Cover: 8

1. Open Water 0 — 2. Bare ground 5

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	38 x 2 =	76
FAC species	64 x 3 =	192
FACU species	5 x 4 =	20
UPL species	0 x 5 =	0
Column Totals:	107 (A)	288 (B)

Prevalence Index = B/A = 2.69

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

N — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIC2a

Cowardin Code: PSS3/EM1B

HGM Classification: Flat

Landform: Lowland.

Local Relief: Concave

Microtopography:	Slope:	Aspect:
Tussocky	2	W

HDR

SOIL

Plot No: 564

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-6	Oe									
6-8	Oa									
8-10	B	5Y 4/1	85	C	7.5YR 4/4	15	M RC		SILO	Frozen at 10

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- Y Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	8
Restrictive Layer Type:	Frozen
Restrictive Layer Depth:	10"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- Y Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- Y Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - Concave
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4) tussocks
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ✓	No ___	Depth (inches): 8 (weep)
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 5

Episaturation ✓ Endosaturation

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR564
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/6/2022
NWI Classification	PSS3/EM1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.59149
Longitude (DD)	-150.04684

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR565
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/6/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.59132
Longitude (DD)	-150.0465

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: NE

Photo Type: Vegetation Direction: SW

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 5660

Project: Totchaket Road	Date: 6/7/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.58994	Watershed: Kantishna River
Longitude: 150.04349	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	Yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	Yes
Remarks:				**Is the Sampled Area within a Wetland?**	Yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover	Species	IND	DOM	Cover
1. Sal. pul.	FACW	Y	10	8. Bet. gla.	FAC		3
2. Ros. aci.	FACU		5	9. Vac. vit.	FAC		3
3. Rho. gro.	FAC	Y	20	10.			
4. Bet. pap.	FACU		5	11.			
5. Vac. uli.	FAC	Y	10	12.			
6. Pic. mar.	FACW		1	13.			
7. Pop. tre.	FACU		1	14.			

Total Shrub Cover: 58 50% of Total Cover: 29 20% of Total Cover: 11.6

Herbaceous Stratum	IND	DOM	Cover	Species	IND	DOM	Cover
1. Rub. cha.	FACW	Y	10	13.			
2. Equ. arv.	FAC		1	14.			
3. Eri. vag.	FACW	Y	25	15.			
4. Car. vag.	OBL		5	16.			
5. Cal. can.	FAC	Y	10	17.			
6. Mer. pan.	FACU		1	18.			
7. Pyr. sp.	—		1	19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 53 50% of Total Cover: 26.5 20% of Total Cover: 10.6

1. Open Water 0 — 2. Bare ground 10

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	5 x 1 =	5
FACW species	46 x 2 =	92
FAC species	47 x 3 =	141
FACU species	12 x 4 =	48
UPL species	0 x 5 =	0
Column Totals:	110 (A)	286 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

Y — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIC2a

Cowardin Code: PSS1/EM1B

HGM Classification: Flat

Landform: Lowland

Local Relief: Slightly concave

Microtopography: Hummocky — Slope: 1 — Aspect: N

SOIL

Plot No: HDR 566

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-2	Oi									
2-5	Oe									
5-7	Oa									
7-13	B	5Y 3/2	80	C	7.5YR 4/4	15	M,RC		SALO	Frozen @ 12"; AA+
					7.5YR 3/4	5	M,RC		↓	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4] - close
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- Y Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	7
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	12"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

N Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- Y Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- Y Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - Slightly Concave
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ____

Episaturation ____ Endosaturation ____

Water Source:

Wetland Hydrology Present? Yes

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

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

Remarks:

Soil very moist but not saturated.

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR566
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/7/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.5899
Longitude (DD)	-150.04347

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR567
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	PSS1/EM1B
HGM	Flat
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.58985
Longitude (DD)	-150.04247

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: S68

Project: Totchaket Road	Date: 6/7/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.58949	Watershed: Kantishna River
Longitude: 150.04161	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover	Species	IND	DOM	Cover
1. Rho. gro.	FAC	Y	60	8. Pic mar	FACW		1
2. Vac. vit.	FAC	Y	20	9.			
3. Aln. vir.	FAC	Y	20	10.			
4. Bet pap	FACW		10	11.			
5. Vac uli	FAC		5	12.			
6. Ros aci	FACU		3	13.			
7. Sal beb	FAC		5	14.			

Total Shrub Cover: 124 50% of Total Cover: 62 20% of Total Cover: 24.8

Herbaceous Stratum	IND	DOM	Cover	Species	IND	DOM	Cover
1. Cna ang	FACU		1	13.			
2. Equ arv	FAC	Y	3	14.			
3. Mer pan	FACU	Y	5	15.			
4. Equ syl.	FAC	Y	3	16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 12 50% of Total Cover: 6 20% of Total Cover: 2.4

1. Open Water 0 — 2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	1 x 2 =	2
FAC species	116 x 3 =	348
FACU species	19 x 4 =	76
UPL species	0 x 5 =	0
Column Totals:	136 (A)	426 (B)

Prevalence Index = B/A = 3.13

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IB2

Cowardin Code: U

HGM Classification: N/A

Landform: Lowland

Local Relief: Flats

Microtopography:	Slope:	Aspect:
Small hum	1	NE

HDR

SOIL

Plot No: 568

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators | Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	Oi									
3-5	Oe									
5-9	B	10YR 3/3	95	C	7.5YR 3/3	5	M		SILO	Very moist. Not sat.
9-17	B	10YR 4/3	90	C	7.5YR 4/4	5	M		VFSAL	Frost at 9". Thin layer saturation on top
				D	10YR 4/1	5	M		VFSAL	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:
No primary hydro indicator for problematic soil indicators.

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

No Histosol or Histel (A1)	No Thick Dark Surfaces (A12)
No Histic Epipedon (A2)[4]	No Alaska Gleyed (A13)
No Black Histic (A3)	No Alaska Redox (A14)
No Hydrogen Sulfide (A4)	No Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

No Depleted Below Dark Surface (A11)	No Alaska Color Change (TA4) Give details of color change
No Depleted Matrix (F3)	No Alaska Alpine Swales (TA5)
No Redox Dark Surface (F6)	No Alaska Redox with 2.5Y Hue
No Depleted Dark Surface (F7)	No Alaska Gleyed w/o Hue 5Y or Redder Underlying
No Redox Depression (F8)	No AA Positive (mineral soil, 60% of horizon 4 inches thick)
No Red Parent Material (F21)	No Ponded/Flooded/High Water Table (12 inches or higher)
No Very Shallow Dark Surface (F22)	No Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	MWD
Depth of Organic Soils:	5
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

No Surface Water (A1)	No Inundation Visible on Aerial Imagery (B7)
No High Water Table (A2)	No Sparsely Vegetated Concave Surface (B8)
No Saturation (A3)	No Marl Deposits (B15)
No Water Marks (B1)	No Hydrogen Sulfide Odor (C1) (w/in 12")
No Sediment Deposits (B2)	No Dry-Season Water Table (C2)**
No Drift Deposits (B3)	No Other (Explain in Remarks)
No Algal Mat or Crust (B4)	
No Iron Deposits (B5)	Are Climatic/Hydrologic Conditions on Site
No Surface Soil Cracks (B6)	Typical for this time of Year? yes

Secondary Indicators (2 or more required)

No Water-stained Leaves (B9)
No Drainage Patterns (B10)
No Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
No Presence of Reduced Iron (C4)
No Salt Deposits (C5)
No Stunted or Stressed Plants (D1)
No Geomorphic Position (D2)
No Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
No Microtopographic Relief (D4)
No FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

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

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

Episaturation ___ Endosaturation ___

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR568
Wetland Status	Upland
Plot Type	WD
Plot Date	6/7/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.58949
Longitude (DD)	-150.04158

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR569
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	PSS1/EM1B
HGM	Depressional
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.58125
Longitude (DD)	-150.02668

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: NE

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR570
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.5813
Longitude (DD)	-150.02697

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 571

Project: Totchaket Road	Date: 6/7/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64,58200	Watershed: Kantishna River
Longitude: 150,02873	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	Yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	Yes
Remarks:				**Is the Sampled Area within a Wetland?**	yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Bet. pap.	FACW	Y	15	8. Sal. sco.	FAC		1
2. Sal. pul.	FACW	Y	5	9. Rho. tom.	FACW		3
3. Cha. cal.	FACW	Y	10	10. Sal. beb.	FAC		3
4. Rho. gro.	FAC	Y	10	11.			
5. Vac. uli.	FAC	Y	3	12.			
6. Aln. vir.	FAC		3	13.			
7. Bet. gla.	FAC		3	14.			

Total Shrub Cover: 56 50% of Total Cover: 28 20% of Total Cover: 11.2

Herbaceous Stratum	IND	DOM	Cover				
1. Cal. can.	FAC	Y	50	13.			
2. Equ. syl.	FAC		10	14.			
3. Eri. arg.	OBL		3	15.			
4. Esi. Vag.	FACW		3	16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			

			25.

Total Herb Cover: 66 50% of Total Cover: 33 20% of Total Cover: 13.2

1. Open Water 0	2. Bare ground 0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species 3	x 1 =	3
FACW species 21	x 2 =	42
FAC species 83	x 3 =	249
FACU species 15	x 4 =	60
UPL species 0	x 5 =	0
Column Totals: 122 (A)		354 (B)

Prevalence Index = B/A = 2.90

Hydrophytic Vegetation Indicators:

Y — Dominance Test is >50%

N — Prevalence Index is ≤3.0

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

N — Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IIB2

Cowardin Code: PSS1/EM1B

HGM Classification: Depressional

Landform: Lowland

Local Relief: Concave

Microtopography:	Slope:	Aspect:
Hum. mod.	2%	S

SOIL

HDR
Plot No: 571

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-6	Oi	10YR 2/1								
6-8	Oe	10YR 2/1								
8-10	B	5Y 4/1	85	C	10YR 5/4	15	M,PL		SiCl	frozen @ 10"

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- Y Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- Y Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	Yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	8
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	10"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- ___ Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- ___ Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - Concave
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4)
- Y FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes X No ___ Depth (inches): 1"

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 6-Surface

Episaturation X Endosaturation

Water Source: Precip.

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR571
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/7/2022
NWI Classification	PSS1/EM1B
HGM	Depressional
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.5819
Longitude (DD)	-150.0287

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 572

Project: Totchaket Road	Date: 6/7/2022
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	ZH / MA

NAD 83, Decimal Degrees

HDR

Latitude: 64.58223	Watershed: Kantishna River
Longitude: 150.02917	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	No
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	No
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	No
Remarks:				**Is the Sampled Area within a Wetland?**	No

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. Bet. pap.	FACU	Y	20	3.			
2.				4.			

Total Tree Cover: 20 — 50% of Total Cover: 10 — 20% of Total Cover: 4

Sapling/Shrub Stratum	IND	DOM	Cover	8.			
1. Pop. tre.	FACU		10	9.			
2. Bet. pap.	FACU	Y	20	10.			
3. Vac. vit.	FAC	Y	35	11.			
4. Aln. vir.	FAC		10	12.			
5. Sal. sco.	FAC		5	13.			
6.				14.			
7.				15.			

Total Shrub Cover: 80 — 50% of Total Cover: 40 — 20% of Total Cover: 16

Herbaceous Stratum	IND	DOM	Cover	13.			
1. Cal. can.	FAC	Y	3	14.			
2. Geo. liv.	FACU	Y	5	15.			
3.				16.			
4.				17.			
5.				18.			
6.				19.			
7.				20.			
8.				21.			
9.				22.			
10.				23.			
11.				24.			
12.				25.			

Total Herb Cover: 8 — 50% of Total Cover: 4 — 20% of Total Cover: 1.6

1. Open Water: 0 — 2. Bare ground: 30 - litter.

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

≈ 5' higher in elevation than 571

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	0 x 2 =	0
FAC species	53 x 3 =	159
FACU species	55 x 4 =	220
UPL species	0 x 5 =	0
Column Totals:	108 (A)	379 (B)

Prevalence Index = B/A = 3.51

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IB3a

Cowardin Code: V

HGM Classification: N/A

Landform: Mound

Local Relief: Convex

Microtopography:	Slope:	Aspect:
None	5	S

SOIL

Plot No: 1+DR 572

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-2	Oi									
2-3	B_1	7.5YR 3/4	100	-	-	-	-	-	SILO	
3-17	B_2	10YR 4/4	100	-	-	-	-	-	SILO	

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- N Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	No
NRCS Drainage Class:	WD
Depth of Organic Soils:	2
Restrictive Layer Type:	-
Restrictive Layer Depth:	-

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- N High Water Table (A2)
- N Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? YES

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- N Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- N Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- N Geomorphic Position (D2)
- N Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- N Microtopographic Relief (D4)
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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): ___

Episaturation ___ Endosaturation

Water Source:

Wetland Hydrology Present? No

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR572
Wetland Status	Upland
Plot Type	WD
Plot Date	6/7/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Woodland Deciduous Forest
Latitude (DD)	64.58223
Longitude (DD)	-150.02915

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: E

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 573

Project: Totchaket Road	Date: 6/7	
Applicant: Department of Transportation and Public Facilities	Investigators:	
Borough/City/Location: West of Nenana	MA	ZH

NAD 83, Decimal Degrees

HDR

Latitude: 64.58313	Watershed: Kantishna River
Longitude: 150.03067	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			Yes	Hydrophytic Vegetation Present?	Yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	Yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	Yes
Remarks:				**Is the Sampled Area within a Wetland?**	Yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Sal beb	FAC	Y	25	8. Sal pul	FACW		5
2. Bet pap	FACU		15	9. Aln. vir.	FAC		3
3. Pop tre	FACU		3	10. Pic mar	FACW		3
4. Rho gro	FAC	Y	20	11.			
5. Vac uli	FAC		5	12.			
6. —	—	—	—	13.			
7. Vac vit	FAC		3	14.			
				15.			

Total Shrub Cover: 82 50% of Total Cover: 41 20% of Total Cover: 16.4

Herbaceous Stratum	IND	DOM	Cover				
1. Equi syl	FAC		3	13.			
2. Eri vag	FACW	Y	20	14.			
3. Rub cha	FACW		1	15.			
4. Cal can	FAC	Y	10	16.			
5. Pyrola sp.	—		1	17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 35 50% of Total Cover: 17.5 20% of Total Cover: 7

1. Open Water	0	2. Bare ground	0

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	29 x 2 =	58
FAC species	69 x 3 =	207
FACU species	18 x 4 =	72
UPL species	0 x 5 =	0
Column Totals:	116 (A)	337 (B)

Prevalence Index = B/A = 2.91

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

N Prevalence Index is ≤3.0

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

N Problematic Hydrophytic Vegetation[1]

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

Project Vegetation Type

IICza

Cowardin Code: PSS1/EM1B

HGM Classification: Depressional

Landform: Swale

Local Relief: concave

Microtopography:	Slope:	Aspect:
Tussocky	0	n/a

HDR

SOIL

Plot No: 573

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators										Soil Map Unit Name
	Horizon	Soil Matrix		Redox Features						
Depth (in.)	Name	Color (moist)	%	Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-3	O_i	10YR 2/1								
3-9	O_e	10YR 2/1								
9-11	A	10YR 2/1	100	-	-	-	-	-	SILO	Sat. at 8" Frozen at 10". AA+

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- No Histosol or Histel (A1)
- ✓ Histic Epipedon (A2)[4]
- No Black Histic (A3)
- No Hydrogen Sulfide (A4)
- No Thick Dark Surfaces (A12)
- No Alaska Gleyed (A13)
- No Alaska Redox (A14)
- No Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- No Depleted Below Dark Surface (A11)
- No Depleted Matrix (F3)
- No Redox Dark Surface (F6)
- No Depleted Dark Surface (F7)
- No Redox Depression (F8)
- No Red Parent Material (F21)
- No Very Shallow Dark Surface (F22)
- No Alaska Color Change (TA4) Give details of color change
- No Alaska Alpine Swales (TA5)
- No Alaska Redox with 2.5Y Hue
- No Alaska Gleyed w/o Hue 5Y or Redder Underlying
- No AA Positive (mineral soil, 60% of horizon 4 inches thick)
- No Ponded/Flooded/High Water Table (12 inches or higher)
- No Low Organic Matter/Low Iron/High pH Soil/New Wetland
- ___ Other (explain in remarks)

Hydric Soils Present?	yes
NRCS Drainage Class:	PD
Depth of Organic Soils:	9
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	10

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

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) (w/in 12")
- ✓ Dry-Season Water Table (C2)**
- ✓ Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? yes

Secondary Indicators (2 or more required)

- ✓ Water-stained Leaves (B9)
- ✓ Drainage Patterns (B10)
- ✓ Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- ✓ Presence of Reduced Iron (C4)
- ✓ Salt Deposits (C5)
- ✓ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2) - Depression
- ✓ Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- ✓ Microtopographic Relief (D4)
- ✓ FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes ✓ No ___ Depth (inches): 9" weep.

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 8"

Episaturation ___ Endosaturation

Water Source:

Wetland Hydrology Present? Yes

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR573
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/7/2022
NWI Classification	PSS1/EM1B
HGM	Depressional
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.58313
Longitude (DD)	-150.03065

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR574
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.58331
Longitude (DD)	-150.03091

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR575
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	PSS1/EM1B
HGM	Depressional
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.58373
Longitude (DD)	-150.03222

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR576
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	PSS1/EM1B
HGM	Depressional
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.58389
Longitude (DD)	-150.03245

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR577
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	PSS1/EM1B
HGM	Depressional
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.58438
Longitude (DD)	-150.03241

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

WETLAND DETERMINATION DATA FORM – Alaska Region

HDR

Plot No: 578

Project: Totchaket Road	Date: 6/7
Applicant: Department of Transportation and Public Facilities	Investigators:
Borough/City/Location: West of Nenana	MA / ZH

NAD 83, Decimal Degrees

HDR

Latitude: 64.58477	Watershed: Kantishna River
Longitude: 150.03242	Location Notes:
Elevation (ft):	

SUMMARY OF FINDINGS

Are "Normal Circumstances" Present?			yes	Hydrophytic Vegetation Present?	yes
Significantly Disturbed?	VEG	SOILS	HYDRO	Hydric Soils Present?	yes
Naturally Problematic?	VEG	SOILS	HYDRO	Wetland Hydrology Present?	yes
Remarks:				**Is the Sampled Area within a Wetland?**	yes

VEGETATION

T< 1%, P = Present

SUBREGION: IAL

Tree Stratum DBH ≥ 3 inch — 1/10 acre circular plot unless noted, absolute cover recorded

Species	IND	DOM	Cover	Species	IND	DOM	Cover
1. None				3.			
2.				4.			

Total Tree Cover: — 50% of Total Cover: — 20% of Total Cover: —

Sapling/Shrub Stratum	IND	DOM	Cover				
1. Rho gro	FAC	Y	25	8. Sal pul	FACW		1
2. Bet pap	FACU	Y	15	9.			
3. Pic mar	FACW		7	10.			
4. Vac vit	FAC	Y	15	11.			
5. Ros aci	FACU		5	12.			
6. Sal beb	FAC		10	13.			
7. Pop tre	FACU		5	14.			
				15.			

Total Shrub Cover: 83 50% of Total Cover: 41.5 20% of Total Cover: 16.6

Herbaceous Stratum	IND	DOM	Cover				
1. Equi arv	FAC	Y	3	13.			
2. Cha ang	FACU		1	14.			
3. Cal can	FAC	Y	3	15.			
4. Geo liv.	FACU		1	16.			
5.				17.			
6.				18.			
7.				19.			
8.				20.			
9.				21.			
10.				22.			
11.				23.			
12.				24.			
				25.			

Total Herb Cover: 8 50% of Total Cover: 4 20% of Total Cover: 1.6

1. Open Water 0 — 2. Bare ground 5

Remarks: Bryophytes and Lichens may be listed in the Herbaceous columns

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 (A/B)

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	8 x 2 =	16
FAC species	56 x 3 =	168
FACU species	27 x 4 =	108
UPL species	0 x 5 =	0
Column Totals:	91 (A)	292 (B)

Prevalence Index = B/A = 3.21

Hydrophytic Vegetation Indicators:

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

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

Project Vegetation Type

IIC2

Cowardin Code: PSS3/1 B

HGM Classification: Depressional

Landform: Lowland

Local Relief: Concave

Microtopography:	Slope:	Aspect:
Mod hum	0	N/A

HDR

SOIL

Plot No: 578

Profile Description: Describe to the depth needed to document the presence/absence of soil indicators

Soil Map Unit Name

Depth (in.)	Horizon Name	Soil Matrix Color (moist)	%	Redox Features Type[1]	Color	%	Loc[2]	Mod[3]	Texture	Horizon Comments
0-5	Oe									
5-9	B.	5Y 4/1	80	C	5YR 4/4	20	M,PL,PL		SiCL	Frozen @ 8

[1]Type: C=Concentrations, D=Depletions, OX=Oxidized Roots, RM = Reduced Matrix [2]Location: PL=Pore Linings, RC=Root Channels, M=Matrix, CS=Coated Sand Grains

Remarks:

[3]Texture Modifiers: Mucky (MK), Peaty (PT), Permafrost (PF) | Coarse Fragments: Gravelly (GR), Cobbly (CB), Stony (ST) (15-35%), 35-60% = Very (V), 60-90% = Extremely (X)

Hydric Soil Indicators Measure from the top of the mineral soil layer except for A1, A2, A3, A4

- N Histosol or Histel (A1)
- N Histic Epipedon (A2)[4]
- N Black Histic (A3)
- N Hydrogen Sulfide (A4)
- N Thick Dark Surfaces (A12)
- N Alaska Gleyed (A13)
- X Alaska Redox (A14)
- N Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[5] (See Page 91/Section 4 for Problematic Hydric Soils Details)

- N Depleted Below Dark Surface (A11)
- N Depleted Matrix (F3)
- N Redox Dark Surface (F6)
- N Depleted Dark Surface (F7)
- N Redox Depression (F8)
- N Red Parent Material (F21)
- N Very Shallow Dark Surface (F22)
- N Alaska Color Change (TA4) Give details of color change
- N Alaska Alpine Swales (TA5)
- N Alaska Redox with 2.5Y Hue
- N Alaska Gleyed w/o Hue 5Y or Redder Underlying
- N AA Positive (mineral soil, 60% of horizon 4 inches thick)
- N Ponded/Flooded/High Water Table (12 inches or higher)
- N Low Organic Matter/Low Iron/High pH Soil/New Wetland

Hydric Soils Present?	YES
NRCS Drainage Class:	PD
Depth of Organic Soils:	5
Restrictive Layer Type:	Frost
Restrictive Layer Depth:	8"

[4]Underlain by mineral soil w/chroma of ≤2

[5]Must have Hydrophytic Vegetation and Primary Hydrology, and an appropriate landscape position unless disturbed or problematic

___ Other (explain in remarks)

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (any one indicator is sufficient)

- N Surface Water (A1)
- Y High Water Table (A2)
- Y Saturation (A3)
- N Water Marks (B1)
- N Sediment Deposits (B2)
- N Drift Deposits (B3)
- N Algal Mat or Crust (B4)
- N Iron Deposits (B5)
- N Surface Soil Cracks (B6)
- N Inundation Visible on Aerial Imagery (B7)
- N Sparsely Vegetated Concave Surface (B8)
- N Marl Deposits (B15)
- N Hydrogen Sulfide Odor (C1) (w/in 12")
- N Dry-Season Water Table (C2)**
- N Other (Explain in Remarks)

Are Climatic/Hydrologic Conditions on Site Typical for this time of Year? Yes

Secondary Indicators (2 or more required)

- N Water-stained Leaves (B9)
- N Drainage Patterns (B10)
- Y Oxidized Rhizospheres along Living Roots (C3)(w/in 12")
- Y Presence of Reduced Iron (C4)
- N Salt Deposits (C5)
- N Stunted or Stressed Plants (D1)
- Y Geomorphic Position (D2) - Concave
- Y Shallow Aquitard (D3) (w/in 24", note as restrictive layer)
- Y Microtopographic Relief (D4) - hummocks
- N FAC-Neutral Test (D5)

Field Observations (inches from ground surface)

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

Water Table Present? Yes X No ___ Depth (inches): 6 - wet.

Saturation Present? (includes capillary fringe) Yes Y No ___ Depth (inches): 5

Episaturation ___ Endosaturation

Water Source: Precip.

Wetland Hydrology Present? YES

Dry Season Water Table SC, Interior, Western AK:

Mid May – late July
**Mineral Soils 12-24 inches
**Organic Soils 12-40 inches

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

Remarks:

FAC-Neutral Test = #OBL+FW dominants > #FU + UPL dominants; add non-dominants if tie

PHOTO REPORT

Plot Number	HDR578
Wetland Status	Wetland
Plot Type	WD
Plot Date	6/7/2022
NWI Classification	PSS3/1B
HGM	Depressional
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.58476
Longitude (DD)	-150.0324

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR579
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.5854
Longitude (DD)	-150.03262

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: E

Photo Type: Vegetation Direction: W

PHOTO REPORT

Plot Number	HDR580
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	PSS1/3B
HGM	Depressional
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.58655
Longitude (DD)	-150.03541

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR581
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	PSS1B
HGM	Depressional
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.58666
Longitude (DD)	-150.03577

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR582
Wetland Status	Wetland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	PSS1/EM1B
HGM	Depressional
Vegetation Type	Open Mixed Shrub Sedge Tundra
Latitude (DD)	64.58726
Longitude (DD)	-150.03724

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: N

Photo Type: Vegetation Direction: S

PHOTO REPORT

Plot Number	HDR583
Wetland Status	Upland
Plot Type	FVP
Plot Date	6/7/2022
NWI Classification	U
HGM	N/A
Vegetation Type	Deciduous Shrub and Sapling Regrowth
Latitude (DD)	64.5876
Longitude (DD)	-150.03788

Photo Type: Soils Direction: NA

Photo Type: Vegetation Direction: SW

Photo Type: Vegetation Direction: N