Loamy Wet High Flood Plains (M135A_156)

Ecoregion Classification

Section: Alaska Mountains (M135A)

Subsection(s): Lowland Flood Plains & Terraces & Fans (M135A.V1L)

Physiographic Features

	RV	Range
Elevation (meters):	636	493 to 865
Slope Gradient (percent):	1	0 to 4

Aspect (clockwise direction): non-influencing

Landform: flood plains on alluvial fans

	Frequency	Duration	Beginning Month	Ending Month
Flooding:	Occasional	Brief	May	Sep
Ponding:	None			

Climatic Features

	RV	Range
Annual Precipitation (millimeters):	589	344 to 923
Annual Air Temperature (°C):	-3.1	-6.0 to -2.1
Frost Free Days:	70	60 to 80

Soil Features

Parent Materials: sandy and silty alluvium over sandy and gravelly alluvium

Rooting Depth (cm): *RV:* 23 *Range:* 16 to 33

Soil Layers and Properties within Representative Rooting Depth:

Layers are described from the surface downward. If more than one texture is listed, the predominant texture is listed first. AWC = available water capacity. CEC = cation exchange capacity.

Thickness (cm)	Texture	Permeability	AWC (cm/cm)	pH	Effective CEC (me/100g)	CEC (me/100g)
4	moderately decomposed plant material	moderately rapid	.34	6.4	30	
19	stratified fine sand to silt	moderate	.15	6.8		20

Restrictive Features: strongly contrasting textural stratification at 33 cm

Water Table (May to September): 0 to 60 cm

Drainage Class: very poorly drained

Vegetation Features

Common Vegetation Types:

Vegetation Type	Ecological Status
White spruce/Richardson willow/horsetail woodland	Climax plant community

Ecological Status-Transition Description:

A single plant community with white spruce/Richardson willow/horsetail woodland is identified on this site. Flooding is considered a transitional pathway between this site and other geographically associated sites.

Vascular Plant Species Richness:

Vascular plant species richness is based on 1999-2002 field season data only. Data from 1997 and 1998 were not used in the calculations.

Vegetation Type	Total	Per Stand Min.	Per Stand Avg.	Per Stand Max.	Number of Stands
White spruce/Richardson willow/horsetail woodland	85	37	52	67	2

Characteristics of White spruce/Richardson willow/horsetail woodland

Ecological Status: Climax plant community

Plant Species Cover, Constancy, and Importance:

Cover, constancy, and importance are based on 1997-2002 field season data. Number of stands sampled = 3. Only those vascular, lichen, and bryophyte species

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	*Avg.*	*Max.*		
TT	PIGL	Picea glauca	20.0	20	20	33	26
TT	POBA2	Populus balsamifera	5.0	5	5	33	13
TM	PIGL	Picea glauca	5.0	10	15	67	26
TR	PIGL	Picea glauca	0.1	10	20	67	26
ST	SAAL	Salix alaxensis	3.0	9	15	67	25
SM-ST	SAGL	Salix glauca	0.1	5	10	67	18
SM	SARI4	Salix richardsonii	5.0	12	20	100	35
SL-SM	SAPS	Salix pseudomonticola	10.0	10	10	67	26
SM	SAPU15	Salix pulchra	10.0	10	10	33	18
SD-SL	VAUL	Vaccinium uliginosum	5.0	12	25	100	35
SL	BEGL	Betula glandulosa	15.0	15	15	33	22
SD	EMNI	Empetrum nigrum	0.1	6	15	100	24
SD	ARRU6	Arctous rubra	5.0	5	5	100	22
GM	CAREX	Carex	15.0	15	15	33	22
GM	CAME4	Carex membranacea	15.0	15	15	33	22
FD-FM	EQAR	Equisetum arvense	10.0	17	30	100	41
FD	ANRI	Anemone richardsonii	5.0	5	5	33	13
L	LICHEN	total lichens	1.0	9	25	100	30
LA	BRYOR2	Bryoria	7.0	7	7	33	15
LA	PARME2	Parmelia	5.0	5	5	33	13
M	MOSS	total bryophytes-mosses and liverworts	75.0	82	90	100	91
M1	PLSC70	Pleurozium schreberi	30.0	37	45	100	61
M1	HYSP70	Hylocomium splendens	15.0	28	40	67	43
M1	ZZMOSS	unknown-mosses	10.0	22	35	67	38
M1	THRE7	Thuidium recognitum	15.0	15	15	67	32
M1	POCO38	Polytrichum commune	5.0	5	5	33	13
M1	PTCR70	Ptilium crista-castrensis	5.0	5	5	33	13
M1	RHTR70	Rhytidiadelphus triquetrus	5.0	5	5	33	13
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	0.1	6	10	100	24
B	LITTER2	litter-woody debris >2.5 cm	0.0	4	7	100	20
B	WATER	water	0.0	2	5	100	14
B	SOIL	mineral-bare soil	0.0	0	0	100	0
B	ROCK	mineral-surface rock fragments	0.0	0	0	100	0

Stratum Height:

Stratum height is based on 1997-2002 field season data. All plant species and ground layer records from all stands are included in the calculations.

Stratum Name	Included Strata	Height				Number of Records
		Min.	*Avg.*	*Max.*	*Units*	
Trees	TT, TM, TS	10.0	11.7	15.0	m	3
Tree regeneration	TR	0.6	0.8	1.0	m	2
Tall shrubs	ST	4.2	4.7	5.5	m	3
Medium shrubs	SM	1.0	1.2	1.5	m	2
Low shrubs	SL	20.0	47.5	100.0	cm	4
Dwarf shrubs	SD	3.0	7.8	10.0	cm	6
Tall and medium grasses and grass-likes	GT, GM	20.0	20.0	20.0	cm	1
Tall and medium forbs	FT, FM	10.0	20.0	30.0	cm	4
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	3.0	9.3	25.0	cm	6

Site Tree Measurements:

Only dominant, codominant, and open grown trees were measured. Height of Measurements = height above ground at which age and diameter was measured. G = ground level, B = breast height (ca 1.5 m).

Tree Species	Age (years)	Diameter (cm)	Height (m)		Number of Trees	Height of Measurements
Picea glauca	77	15.5	8.5	*Min.*	4	B
	132	22.5	11.5	*Avg*		
	223	27.4	14.6	*Max.*		

Tree Basal Area (all trees >1.5 m tall):

Min.	Avg.	Max.	Number of Stands
	m2 / ha		
11.5	12.0	12.4	2

Mapunit Components

Common Name (Soils Name):

Boreal-riparian forested loamy flood plains, very wet (Typic Cryaquents, coarse-loamy over sandy-skeletal)

Soil Map Units

Only those map units in which the landtype is a major component are listed. The landtype also may occur as a major component in other map units.

Symbol:	*Common Name (Soils Name):*
7AFF	Boreal Outwash Plains and Fans with Discontinuous Permafrost (Typic Eutrocryepts, sandy-skeletal-Typic Cryaquents, coarse-loamy over sandy-skeletal-Typic Historthels, coarse-loamy Association, 0 to 5 percent slopes)
7FP11	Boreal Diorite Flood Plains (Typic Cryaquents, coarse-loamy over sandy-skeletal-Typic Cryorthents, sandy skeletal-Oxyaquic Cryorthents, sandy-skeletal Complex)

Geographically Associated Landtypes

M135A_100—Loamy Flood Plains:

This site occurs on slightly higher positions with well drained soils. The climax plant community is "Poplar-feltleaf willow scrub."

Riverwash—Alluvium, Nonvegetated:

This site occurs on barren alluvium. The climax plant community is "Sparsely vegetated alluvium."

Similar Landtypes

M135A_185—Gravelly High Flood Plains, High Elevation:

This site has soils that are very shallow to sand and gravel. The climax plant community is "White spruce/willow forest."

M135A_203—Gravelly Low Flood Plains, Wet:

This site occurs on positions with a thin loamy surface mantle over sand and gravel. The climax plant community is "Entire mountain avens/sedge wet dwarf scrub."

M135A_354—Loamy Slopes, Wet:

This site occurs in uplands and is not flooded. The climax plant community is "White spruce/willow woodland, wet."