

## Loamy Flood Plains (M135A\_100)

### Ecoregion Classification

**Section:** Alaska Mountains (M135A)

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

### Physiographic Features

**Elevation (meters):** *RV* 637 *Range* 421 to 960

**Slope Gradient (percent):** 1 0 to 2

**Aspect (clockwise direction):** non-influencing

**Landform:** flood plains

**Flooding:** *Frequency* Occasional *Duration* Brief *Beginning Month* May *Ending Month* Sep

**Ponding:** None

### Climatic Features

**Annual Precipitation (millimeters):** *RV* 589 *Range* 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:** loamy alluvium over sandy and gravelly alluvium

**Rooting Depth (cm):** *RV:* 33 *Range:* 16 to 51

### 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)
5	slightly decomposed plant material	moderately rapid	.34	5.4	30	
8 to 20	stratified fine sand to silt	moderate	.15	6.9 to 7.0		10 to 20

**Restrictive Features:** strongly contrasting textural stratification at 92 cm

**Water Table (May to September):** none

**Drainage Class:** well drained

### Vegetation Features

#### Common Vegetation Types:

##### Vegetation Type

Poplar-feltleaf willow scrub  
Beaver dam alder-willow scrub  
Alder scrub

##### Ecological Status

Climax plant community  
Beaver impacted site and vegetation  
Mid stage of primary succession on flood plains

#### Ecological Status-Transition Description:

Three plant communities are identified on this flood prone site including a potential community with poplar-feltleaf willow scrub, a mid-seral community on lower and slightly more flood prone positions with alder scrub, and a community associated with beaver activity with alder-willow scrub, beaver dam in which the site conditions have been significantly altered and are now wetter due to beaver dam construction. Flooding and beaver activity are considered transitional pathways between community types.

### 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			Number of Stands
		Min.	Avg.	Max.	
Poplar-feltleaf willow scrub					0
Beaver dam alder-willow scrub	26	26	26	26	1
Alder scrub	13	13	13	13	1

### Characteristics of Poplar-feltleaf willow scrub

**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 = 2. Only those vascular, lichen, and bryophyte species with average cover >=5% and constancy >=15% are listed.

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	Avg.	Max.		
TM	POBA2	Populus balsamifera	35.0	35	35	50	42
TS	POBA2	Populus balsamifera	25.0	25	25	50	35
ST	SAAL	Salix alaxensis	55.0	55	55	50	52
ST	SAAR3	Salix arbusculoides	20.0	20	20	50	32
ST	SAPU15	Salix pulchra	5.0	5	5	50	16
SM	ALSI3	Alnus sinuata	10.0	10	10	50	22
SM	ALVIC	Alnus viridis ssp. crispa	10.0	10	10	50	22
GM-GT	CACA4	Calamagrostis canadensis	5.0	8	10	100	28
FM	EQFL	Equisetum fluviatile	85.0	85	85	50	65
FM	EPAN2	Epilobium angustifolium	5.0	5	5	50	16
FM	LUAR2	Lupinus arcticus	5.0	5	5	50	16
FM	OXCA4	Oxytropis campestris	5.0	5	5	50	16
L	LICHEN	total lichens	0.0	10	19	100	32
M	MOSS	total bryophytes-mosses and liverworts	20.0	25	30	100	50
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	20.0	38	55	100	62
B	SOIL	mineral-bare soil	15.0	20	25	100	45
B	ROCK	mineral-surface rock fragments	0.0	12	25	100	35
B	LITTER2	litter-woody debris >2.5 cm	2.0	8	15	100	28
B	WATER	water	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			Units	Number of Records
		Min.	Avg.	Max.		
Trees	TT, TM, TS	3.0	4.5	6.0	m	2
Tree regeneration	TR	2.0	3.0	4.0	m	2
Tall shrubs	ST	3.0	3.4	4.0	m	3
Medium shrubs	SM	2.0	2.5	3.0	m	2
Low shrubs	SL	70.0	70.0	70.0	cm	1

### Characteristics of Beaver dam alder-willow scrub

**Ecological Status:** Beaver impacted site and vegetation

### Plant Species Cover, Constancy, and Importance:

Cover, constancy, and importance are based on 1997-2002 field season data. Number of stands sampled = 1. Only those vascular, lichen, and bryophyte species

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	Avg.	Max.		
TM	POBA2	Populus balsamifera	7.0	7	7	100	26
ST	ALTE2	Alnus tenuifolia	60.0	60	60	100	77
ST	SAAL	Salix alaxensis	20.0	20	20	100	45
SL	VIED	Viburnum edule	10.0	10	10	100	32
SL	ROAC	Rosa acicularis	6.0	6	6	100	24
SD	ARRU6	Arctous rubra	5.0	5	5	100	22
GT	CACA4	Calamagrostis canadensis	15.0	15	15	100	39

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	Avg.	Max.		
FM	EQAR	Equisetum arvense	20.0	20	20	100	45
FD	RUAR	Rubus arcticus	20.0	20	20	100	45
L	LICHEN	total lichens	0.1	0	0	100	0
M	MOSS	total bryophytes-mosses and liverworts	40.0	40	40	100	63
M1	ZZMOSS	unknown-mosses	30.0	30	30	100	55
M1	CLDE70	Climacium dendroides	5.0	5	5	100	22
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	50.0	50	50	100	71
B	LITTER2	litter-woody debris >2.5 cm	20.0	20	20	100	45
B	WATER	water	1.0	1	1	100	10
B	SOIL	mineral-bare soil	0.1	0	0	100	0
B	ROCK	mineral-surface rock fragments	0.1	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			Units	Number of Records
		Min.	Avg.	Max.		
Trees	TT, TM, TS	5.5	5.5	5.5	m	1
Tree regeneration	TR	1.5	1.8	2.2	m	2
Tall shrubs	ST	4.0	4.0	4.0	m	1
Low shrubs	SL	90.0	90.0	90.0	cm	1
Dwarf shrubs	SD	10.0	10.0	10.0	cm	1
Tall and medium grasses and grass-likes	GT, GM	70.0	70.0	70.0	cm	1
Tall and medium forbs	FT, FM	40.0	60.0	80.0	cm	2
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	1.0	2.0	3.0	cm	2

### Characteristics of Alder scrub

**Ecological Status:** Mid stage of primary succession on flood plains

### 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 with average cover >=5% and constancy >=15% are listed.

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	Avg.	Max.		
ST	ALSI3	Alnus sinuata	80.0	80	80	33	51
ST	SAAL	Salix alaxensis	40.0	40	40	33	36
SM-ST	SAPU15	Salix pulchra	10.0	12	15	67	28
SM	ALVIC	Alnus viridis ssp. crispa	65.0	70	75	67	68
SL	SPST3	Spiraea stevenii	2.0	8	15	67	23
SL	B EGL	Betula glandulosa	5.0	5	5	33	13
SL	VAUL	Vaccinium uliginosum	5.0	5	5	33	13
SD	VAVIM99	Vaccinium vitis-idaea spp. Minus	5.0	5	5	33	13
GM-GT	CACA4	Calamagrostis canadensis	0.1	18	40	100	42
FM-FT	ARTI	Artemisia tilesii	5.0	12	20	67	28
FT	POAL5	Polygonum alaskanum	7.0	7	7	33	15
FM	MEPA	Mertensia paniculata	0.1	8	15	67	23
FM	ACDE2	Aconitum delphiniifolium	5.0	5	5	33	13
FM	EQUIS	Equisetum	5.0	5	5	33	13
FD	COCA13	Cornus canadensis	35.0	35	35	33	34
FD	LYAN2	Lycopodium annotinum	10.0	10	10	33	18
L	LICHEN	total lichens	0.0	0	0	100	0
M	MOSS	total bryophytes-mosses and liverworts	5.0	17	40	100	41
M1	POCO38	Polytrichum commune	20.0	20	20	33	26
M1	ZZMOSS	unknown-mosses	10.0	10	10	33	18
M1	HYSP70	Hylocomium splendens	5.0	5	5	33	13
M1	PLSC70	Pleurozium schreberi	5.0	5	5	33	13
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	60.0	77	90	100	88
B	LITTER2	litter-woody debris >2.5 cm	5.0	8	10	100	28

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	Avg.	Max.		
B	SOIL	mineral-bare soil	0.0	3	10	100	17
B	ROCK	mineral-surface rock fragments	0.0	0	0	100	0
B	WATER	water	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			Units	Number of Records
		Min.	Avg.	Max.		
Tree regeneration	TR	0.2	0.5	0.8	m	2
Tall shrubs	ST	3.0	4.0	6.0	m	3
Medium shrubs	SM	1.5	2.3	2.8	m	3
Low shrubs	SL	40.0	66.7	100.0	cm	3
Dwarf shrubs	SD	8.0	8.0	8.0	cm	1
Tall and medium grasses and grass-like	GT, GM	20.0	43.3	60.0	cm	3
Tall and medium forbs	FT, FM	20.0	39.0	60.0	cm	5
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	4.0	7.0	10.0	cm	2

### Mapunit Components

#### Common Name (Soils Name):

Boreal-riparian scrub loamy flood plains (Typic Cryofluvents, 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 minor component in other map units.

#### Symbol: Common Name (Soils Name):

7FP1 Boreal Flood Plains and Terraces  
(Typic Cryofluvents, coarse-loamy over sandy-skeletal-Oxyaquic Cryorthents, sandy-skeletal Complex)

### Geographically Associated Landtypes

#### M135A\_151 — Loamy High Flood Plains:

This site occurs on higher flood positions. The climax plant community is "White spruce/bog blueberry/feathermoss

#### M135A\_204 — Gravelly Flood Plains:

This site occurs on lower positions with soils that have are very shallow to sandy and gravelly material. The climax plant community is "White spruce-poplar/soapberry forest."

#### Riverwash — Alluvium, Nonvegetated:

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