

Loamy Wet High Flood Plains (135A_156)

Ecoregion Classification

Section: Cook Inlet Lowlands (135A)

Subsection(s): Lowland Flood Plains & Terraces & Fans (135A.V1)

Physiographic Features

Elevation (meters): RV Range
 168 61 to 487

Slope Gradient (percent): 1 0 to 2

Aspect (clockwise direction): non-influencing

Landform: channels on flood plains

	<i>Frequency</i>	<i>Duration</i>	<i>Beginning Month</i>	<i>Ending Month</i>
Flooding:	Occasional	Brief	May	Sep

Ponding: None

Climatic Features

Annual Precipitation (millimeters): RV Range
 822 678 to 989

Annual Air Temperature (°C): -0.1 -1.5 to 1.0

Frost Free Days: 80 70 to 100

Soil Features

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

Rooting Depth (cm): RV: 33 Range: 22 to 50

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)
2 to 4	slightly decomposed plant material; moderately decomposed plant material	moderately rapid	.34	6.4 to 6.8		80
18 to 31	stratified fine sand to silt	moderate	.15	6.8 to 7.9	1	20
11	stratified sand to silt	moderate	.15	6.4		20

Restrictive Features: strongly contrasting textural stratification at 86 cm

Water Table (May to September): 60 cm

Drainage Class: somewhat poorly drained

Vegetation Features

Common Vegetation Types:

<i>Vegetation Type</i>	<i>Ecological Status</i>
Mixed white spruce-poplar/thinleaf alder forest	Climax plant community

Ecological Status-Transition Description:

A single plant community with mixed white spruce-poplar/thinleaf alder forest is identified on this site and 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.

Per Stand Number of

Vegetation Type	Total	Min.	Avg.	Max.	Stands
Mixed white spruce-poplar/thinleaf alder forest	49	33	36	38	2

Notable Plants:

Notable plants include rare plants, range extensions, and plants little known from Denali National Park and Preserve.

Vegetation Type	Symbol	Scientific Name
Mixed white spruce-poplar/thinleaf alder forest	GLSTS	Glyceria striata ssp. stricta

Characteristics of Mixed white spruce-poplar/thinleaf alder forest

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.		
TT	POBA2	Populus balsamifera	15.0	15	15	100	39
TT	PIGL	Picea glauca	7.0	11	15	100	33
ST	ALTE2	Alnus tenuifolia	60.0	62	65	100	79
SM	ROAC	Rosa acicularis	15.0	20	25	100	45
SL-SM	VIED	Viburnum edule	5.0	20	35	100	45
SL-SM	RITR	Ribes triste	5.0	10	15	100	32
SM	SACO2	Salix commutata	10.0	10	10	50	22
SM	SABA3	Salix barclayi	5.0	5	5	50	16
GT	CACA4	Calamagrostis canadensis	2.0	14	25	100	37
FM	EQAR	Equisetum arvense	15.0	20	25	100	45
FM	GYDR	Gymnocarpium dryopteris	20.0	20	20	50	32
FD	ANRI	Anemone richardsonii	5.0	5	5	50	16
L	LICHEN	total lichens	0.1	0	0	100	0
M	MOSS	total bryophytes-mosses and liverworts	5.0	18	30	100	42
M1	ZZMOSS	unknown-mosses	4.0	12	20	100	35
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	60.0	75	90	100	87
B	LITTER2	litter-woody debris >2.5 cm	25.0	28	30	100	53
B	WATER	water	0.1	1	1	100	10
B	SOIL	mineral-bare soil	0.1	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			Units	Number of Records
		Min.	Avg.	Max.		
Trees	TT, TM, TS	26.0	26.0	26.0	m	2
Tall shrubs	ST	5.0	5.2	5.5	m	2
Medium shrubs	SM	1.2	1.2	1.2	m	1
Tall and medium grasses and grass-likes	GT, GM	130.0	155.0	180.0	cm	2
Tall and medium forbs	FT, FM	60.0	90.0	120.0	cm	2
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	2.0	2.5	3.0	cm	2

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	Diameter	Height	Number of Trees	Height of Measurements
	(years)	(cm)	(m)		
Picea glauca	92	32.3	18.9	4	B
	116	32.9	21.9		
	131	34.0	25.6		

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

Min.	Avg.	Max.	Number of Stands
m ² / ha			
11.5	11.5	11.5	2

Mapunit Components

Common Name (Soils Name):

Boreal-riparian forested loamy wet flood plains, Cook Inlet (Aquic 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):

- 13FPW Boreal Flood Plains and Terraces, Wet
(Typic Cryaquents, coarse-loamy over sandy-skeletal-Aquic Cryofluvents, coarse-loamy over sandy-skeletal-Terric Cryofibrists, euic Complex)
- 13FWW Boreal Flood Plains, Very Wet
(Terric Cryofibrists, euic-Aquic Cryofluvents, coarse-loamy over sandy-skeletal Complex)

Geographically Associated Landtypes

135A_500—Loamy Wet Flood Plains:

This site occurs on lower flood plains. The climax plant community is "Thinleaf alder-mixed willow scrub."

135A_501—Organic High Flood Plains, Very Wet:

This site occurs on broad flood plain depressions and soils are wetter with thick organic surface mats. The climax plant community is "Water horsetail-marsh five finger-buckbean wet meadow."

135A_502—Organic High Flood Plains:

This site occurs on broad flood plain depressions and soils are wetter with thick organic surface mats. The climax plant community is "Thinleaf alder/sweetgale/water horsetail scrub."

Similar Landtypes

135A_100—Loamy Flood Plains:

This site has well drained soils. The climax plant community is "Poplar/alder forest."