

LANDFIRE Biophysical Setting Model

Biophysical Setting 7516730

Alaskan Pacific Maritime Alpine Wet Meadow

☐ This BPS is lumped with:

☐ This BPS is split into multiple models:

General Information

Contributors (also see the Comments field)

Date

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Vegetation Type

Wetlands/Riparian

Map Zone

75

Model Zone

☒ Alaska	☐ N-Cent.Rockies
☐ California	☐ Pacific Northwest
☐ Great Basin	☐ South Central
☐ Great Lakes	☐ Southeast
☐ Northeast	☐ S. Appalachians
☐ Northern Plains	☐ Southwest

Dominant Species*

SARE2 PEFRR
VIOLA SACA14
MIGU JUME3
MILE2 PEFRR5

General Model Sources

☐ Literature
☐ Local Data
☒ Expert Estimate

Geographic Range

This system occurs from Kodiak Island through southeastern AK.

Biophysical Site Description

This small-patch wetland type is found in alpine valleys, low-energy riparian zones, and low-angle sideslopes. Soils are saturated for at least a portion of the growing season and may have a shallow to deep peat layer.

Vegetation Description

This system often occurs as a mosaic of alpine wetlands including headwater fens, marshes and riparian zones (NatureServe 2008). Common species include *Salix reticulata*, *Salix stolonifera*, *Viola* spp., *Mimulus guttatus*, *Mimulus lewesii*, *Petasites frigidus* var. *frigidus*, *Sanguisorba canadensis* and *Leptarrhena pyrolifolia*. *Valeriana stichensis*, *Castilleja parviflora*, *Ranunculus* spp., *Caltha* spp. and *Saxifraga* spp. often occur along streambanks (NatureServe 2008). Peatlands and associated wet meadows and marshes often feature *Trichophorum caespitosum*, *Carex anthoxantha* and *Juncus mertensianus* (NatureServe 2008).

Disturbance Description

This system is relatively stable given appropriate hydrologic conditions. Seasonal flooding may occur, but these are low energy systems that do not have significant transport and deposition of alluvium.

Adjacency or Identification Concerns

This type is often found adjacent to other alpine herbaceous and shrub communities.

Native Uncharacteristic Conditions

*Dominant Species are from the NRCS PLANTS database. To check a species code, please visit <http://plants.usda.gov>.

**Fire Regime Groups are: I: 0-35 year frequency, surface severity; II: 0-35 year frequency, replacement severity; III: 35-100-year frequency, mixed severity; IV: 35-100+ year frequency, replacement severity; V: 200+ year frequency, replacement severity

Scale Description

Small patch

Issues/Problems

Comments

This model was created for the maritime region and did not receive review for other parts of the state.

This model was created by Tina Boucher and Kori Blankenship based on the draft Maritime Ecological Systems description (NatureServe 2008) and information from the Alaskan Pacific Maritime Alpine Floodplain model description by Rick Turner and reviewed by Tom DeMeo.

Vegetation Classes

Class A 100 %

Mid Development 1 All Structures

Upper Layer Lifeform

- ☒ Herbaceous
☐ Shrub
☐ Tree

Indicator Species* and Canopy Position

SARE2 Upper
VIOLA Upper
PEFRF Upper

Structure Data (for upper layer lifeform)

	Min	Max
Cover	Herbaceous	Herbaceous
Height	Herbaceous	Herbaceous
Tree Size Class	None	

☐ Upper layer lifeform differs from dominant lifeform.

Description

Zero years plus

This class represents the Alpine Wet Meadow community. Species composition is variable. See the Vegetation Description for a list of common species.

No disturbances modeled.

Class B 0 %

[Not Used] [Not Used]

Upper Layer Lifeform

- ☐ Herbaceous
☐ Shrub
☐ Tree

Indicator Species* and Canopy Position

Structure Data (for upper layer lifeform)

	Min	Max
Cover		
Height		
Tree Size Class		

☐ Upper layer lifeform differs from dominant lifeform.

Description

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**Fire Regime Groups are: I: 0-35 year frequency, surface severity; II: 0-35 year frequency, replacement severity; III: 35-100-year frequency, mixed severity; IV: 35-100+ year frequency, replacement severity; V: 200+ year frequency, replacement severity

Class C 0 %

[Not Used] [Not Used]

Upper Layer Lifeform

- ☐ Herbaceous
☐ Shrub
☐ Tree

**Indicator Species* and
Canopy Position**

Structure Data (for upper layer lifeform)

	Min	Max
Cover		
Height		
Tree Size Class		

☐ Upper layer lifeform differs from dominant lifeform.

Description

Class D 0 %

[Not Used] [Not Used]

Upper Layer Lifeform

- ☐ Herbaceous
☐ Shrub
☐ Tree

**Indicator Species* and
Canopy Position**

Structure Data (for upper layer lifeform)

	Min	Max
Cover		
Height		
Tree Size Class		

☐ Upper layer lifeform differs from dominant lifeform.

Description

Class E 0 %

[Not Used] [Not Used]

Upper Layer Lifeform

- ☐ Herbaceous
☐ Shrub
☐ Tree

**Indicator Species* and
Canopy Position**

Structure Data (for upper layer lifeform)

	Min	Max
Cover		
Height		
Tree Size Class		

☐ Upper layer lifeform differs from dominant lifeform.

Description

Disturbances

Fire Regime Group:** NA

Historical Fire Size (acres)

Avg 0

Min 0

Max 0

Sources of Fire Regime Data

- ☐ Literature
☐ Local Data
☒ Expert Estimate

Fire Intervals

Avg FI Min FI Max FI Probability Percent of All Fires

Replacement

Mixed

Surface

All Fires

Fire Intervals (FI):

Fire interval is expressed in years for each fire severity class and for all types of fire combined (All Fires). Average FI is central tendency modeled. Minimum and maximum show the relative range of fire intervals, if known. Probability is the inverse of fire interval in years and is used in reference condition modeling. Percent of all fires is the percent of all fires in that severity class.

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Additional Disturbances Modeled

- ☐ Insects/Disease ☐ Native Grazing ☐ Other (optional 1)
☐ Wind/Weather/Stress ☐ Competition ☐ Other (optional 2)

References

NatureServe. 2008. International Ecological Classification Standard: Terrestrial Ecological Classifications. Draft Ecological Systems Description for the Alaska Maritime Region.

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