LANDFIRE Biophysical Setting Model

Biophysical Setting 7816730 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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Modeler 2	Rick Turner	rlturner@fs.fed.us	**Reviewer**
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Vegetation Type
Wetlands/Riparian

Map Zone
78

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

Dominant Species*

SARE2	PEFRF
VIOLA	SACA14
MIGU	JUME3
MILE2	PEFR5

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, Leptarrhena pyrolifolia; Valeriana stichensis, Castilleja parviflora, Ranunculus spp., Caltha spp., Saxifraga spp. often occur along streambanks(NatureServe 2008). Peatlands and associated wet meadows and marshes often feature Trichophorum caespitosum, Carex anthoxanthea, 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 seve

Scale Description

Small patch

Issues/Problems

Comments

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

- [x] 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 plus years

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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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 fir combined (All Fires). Average FI is central tendency modeled. Minimum and maximum show the relative range of fire intervals, if known. Probability is the inver 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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