

LANDFIRE Biophysical Setting Model

Biophysical Setting 7616700

North Pacific Maritime Eelgrass Bed

- ☐ This BPS is lumped with:
☐ This BPS is split into multiple models:

General Information

Contributors (also see the Comments field) **Date** 7/31/2009

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Modeler 3 **Reviewer**

Vegetation Type

Wetlands/Riparian

Map Zone

76

Model Zone

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

Dominant Species*

ZOMA

General Model Sources

- ☒ Literature
☐ Local Data
☒ Expert Estimate

Geographic Range

Eelgrass beds are found in coastal areas throughout AK including the Gulf of Alaska, Cook Inlet and Bristol Bay (NatureServe 2008).

Biophysical Site Description

Intertidal zones are found with clear water in bays, inlets and lagoons, typically dominated by macrophytic algae and marine aquatic angiosperms along the temperate Pacific coast. Subtidal portions are never exposed while intertidal areas support species that can tolerate exposure to the air. Common substrates include marine silts, but may also include exposed bedrock and cobble, where many algal species become attached with holdfasts. Subtidal/lower intertidal in clear water. Substrate is usually marine silts, but may be cobble.

Vegetation Description

This system is typically a pure stand of *Zostera marina* (Viereck et al. 1992).

Disturbance Description

This type is likely a climax system (Viereck et al. 1992). Tidal flooding and storm surge are primary disturbances.

Adjacency or Identification Concerns

This type is distinctive although it could possibly be confused with certain marine algae communities (Viereck et al. 1992)

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

Large patch

Issues/Problems

Comments

This model was created by Kori Blankenship and Keith Boggs based on information from the Ecological Systems description (NatureServe 2008) and the The Alaska vegetation classification (Vioreck et al. 1992).

Vegetation Classes

Class A 100 %

Structure Data (for upper layer lifeform)

Mid Development 1 All Structures

Upper Layer Lifeform

- ☒ Herbaceous
☐ Shrub
☐ Tree

Indicator Species* and Canopy Position

ZOMA Upper

	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 Eelgrass Bed dominated by *Zostera marina*.

No disturbances modeled.

Class B 0 %

Structure Data (for upper layer lifeform)

[Not Used] [Not Used]

Upper Layer Lifeform

- ☐ Herbaceous
☐ Shrub
☐ Tree

Indicator Species* and Canopy Position

	Min	Max
Cover		
Height		
Tree Size Class		

☐ Upper layer lifeform differs from dominant lifeform.

Description

Class C 0 %

Structure Data (for upper layer lifeform)

[Not Used] [Not Used]

Upper Layer Lifeform

- ☐ Herbaceous
☐ Shrub
☐ Tree

Indicator Species* and Canopy Position

	Min	Max
Cover		
Height		
Tree Size Class		

☐ Upper layer lifeform differs from dominant lifeform.

Description

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Class D 0 %

[Not Used] [Not Used]

Structure Data (for upper layer lifeform)

Upper Layer Lifeform

- ☐ Herbaceous
☐ Shrub
☐ Tree

Indicator Species* and Canopy Position

Min		Max
Cover		
Height		
Tree Size Class		

☐ Upper layer lifeform differs from dominant lifeform.

Description

Class E 0 %

[Not Used] [Not Used]

Structure Data (for upper layer lifeform)

Upper Layer Lifeform

- ☐ Herbaceous
☐ Shrub
☐ Tree

Indicator Species* and Canopy Position

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

Additional Disturbances Modeled

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

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.

References

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

Viereck, L.A., C.T. Dyrness, A.R. Batten and K.J. Wenzlick. 1992. The Alaska vegetation classification. Pacific Northwest Research Station, USDA Forest Service, Portland, OR. Gen. Tech. Rep. PNW-GTR286. 278 p.

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