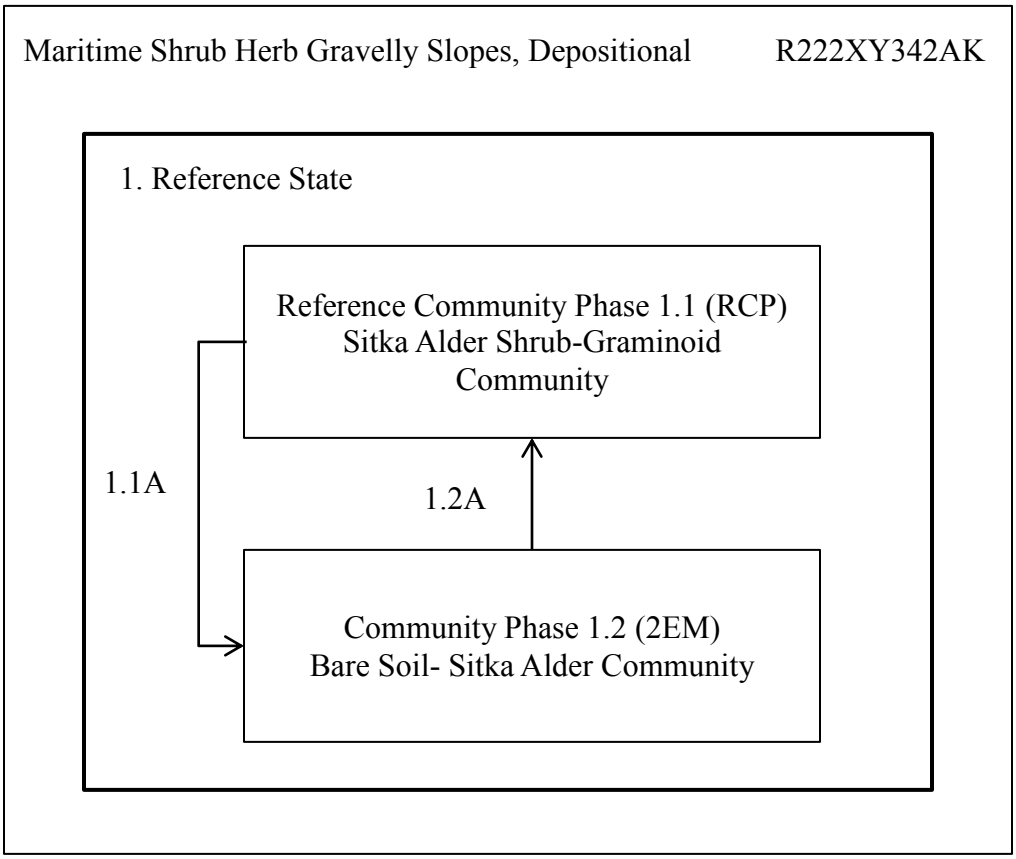
Ecological Site Description ID:	R222XY342AK

Ecological Dynamics of the Site:

This ecological site is in maritime mountain avalanche chutes. Specifically, it is on mountain chutes and side slopes from sea level to tree line in areas where frequent avalanches or slides occur. This ecological site also includes less steep avalanche slopes in the runout zones at the bottom of the avalanche path. The ecological dynamics of this site are maintained by frequent snow or debris slides that erode the soils and prevent trees from becoming established. The vegetation is dominantly shrubs and graminoids. Tree seedlings may become established in areas that are subject to less frequent avalanches, but growth rarely extends beyond the regenerating phase.

The reference plant community for this ecological site is characterized by mixed shrubs, forbs, and graminoids with minimal exposed bare soil, rock, and rubble. Earlier sere plant communities have more exposed soil and rock and less plant cover. The early sere plant community was not documented in the field, but it is likely to be characterized by extensive bare soil and rock with minimal plant cover.

State and Transition Model:



State ID Number:	1	**State Name:**	Reference state
Phase 1.1			
Community Phase Number:	1.1	**Community Phase Name:**	Sitka Alder Shrub-Graminoid Community

Community Phase Narrative:

This is the reference plant community for an avalanche chute. Compared to the early successional community phase, bare soil and rock cover is minimal. Medium-sized shrub cover may be as much as 70 percent. Shrub species include Sitka alder *(Alnus viridis ssp. sinuata), Salix barclayi, Ribes bracteosum,* and *Salix sitchensis*. Graminoid cover consisting of *Poa palustris* is approximately 20 percent. Forb cover is approximately 15 percent with species such as *Trientalis europaea* and *Dryopteris expansa.* Tree seedlings may become established on this site, but growth likely will not extend beyond the regenerating phase because of the frequency and intensity of the disturbance.

Community Pathways

Pathway Number	**Pathway Name & Description**
1.1A	High-frequency avalanches on steep mountainous slopes carry snow and debris from higher elevations to lower elevations. The slides erode the soil and deposit large boulders and rocks at the lower elevations. The movement of snow and rock removes the plants. The high frequency and intensity of the disturbance in the avalanche chutes prevents a forest community from becoming established.

Phase 1.2	

Community Phase Number:	1.2	**Community Phase Name:**	Bare Soil-Sitka Alder Community

Community Phase Narrative:

This community phase represents the mid successional sere plant community following an avalanche. The plant community is characterized by shrubs and graminoids with as much as 50 percent bare ground and surface rock. Shrub species may include Sitka alder *(Alnus viridis ssp. sinuata)*, *Salix sitchensis*, *Rubus spectabilis, and Aruncus dioicus.* Shrub cover may be 10 to 40 percent, and graminoid cover may be 10 to 50 percent. Common graminoid species include *Carex, Calamagrostis canadensis,* and *Poa arctica. Artemisia arctica* was the only observed forb species; however, it is likely that other species may become established over time.

Community Pathways

Pathway Number	Pathway Name & Description
1.2A	Time since an avalanche and soil stabilization