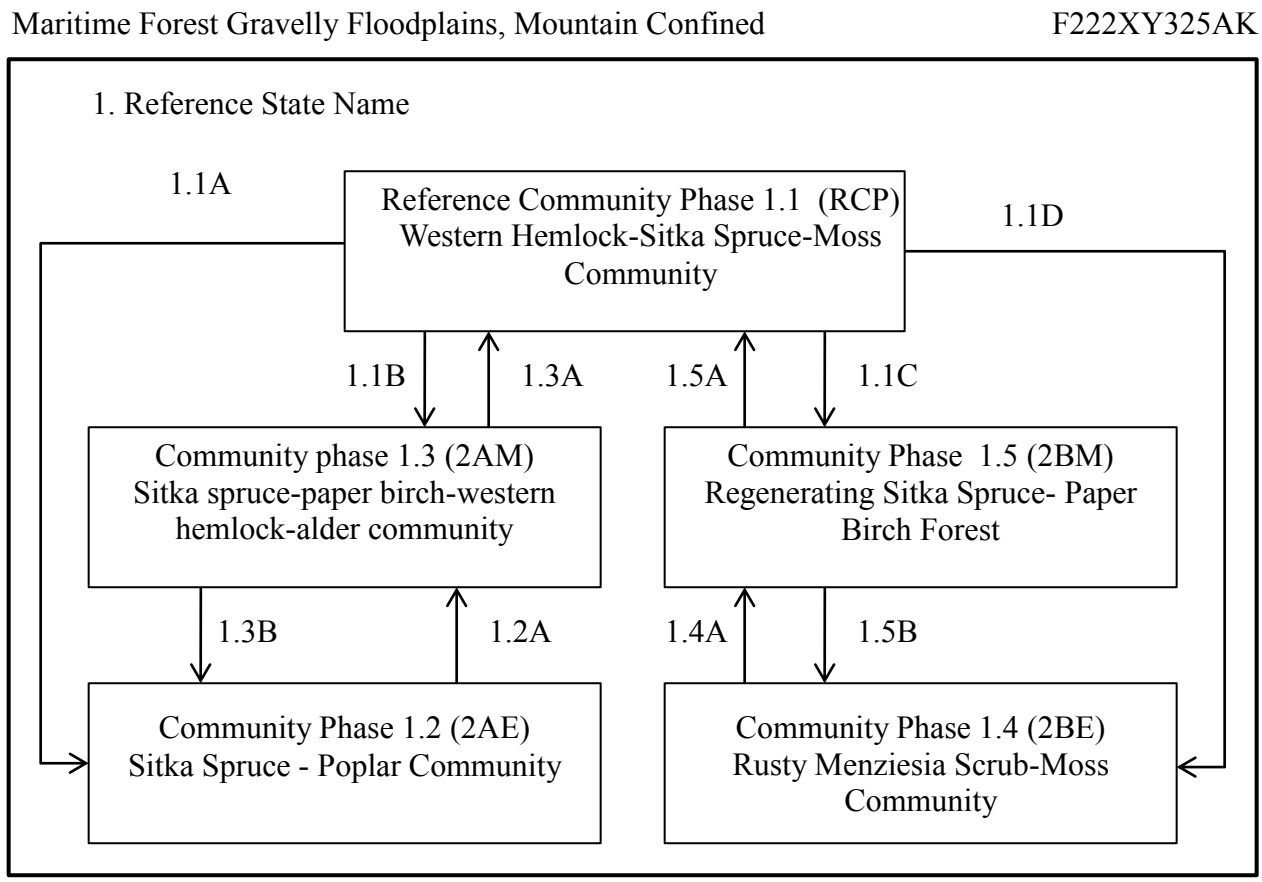
Ecological Site Description ID:	F222XY325AK

Ecological Dynamics of the Site:

This ecological site is a maritime, high-gradient, mountain-confined flood plain. The ecological dynamics of the site are driven by occasional, brief flooding and brush management. The reference vegetation on these moderate to steep slopes is a closed canopy forest of mature Sitka spruce *(Picea sitchensis),* subalpine fir *(Abies lasiocarpa),* and western hemlock *(Tsuga heterophylla).* Early successional flood plain communities are comprised of bare rock and soil with approximately 30 percent cover of species such as dwarf fireweed *(Chamerion latifolium)* and Sitka alder *(Alnus viridis ssp. sinuata).* Soils on this site are cobbly and exhibit little development.

State and Transition Model:



State ID Number:	1	**State Name:**	Reference state
Phase 1.1			
Community Phase Number:	1.1	**Community Phase Name:**	Western Hemlock-Sitka Spruce Forest Community

Community Phase Narrative:

The reference community phase for this ecological site is characterized by a closed canopy of Sitka spruce *(Picea sitchensis),* paper birch *(Betula papyrifera var. papyrifera)*, *and* western hemlock *(Tsuga heterophylla)*. Subalpine fir *(Abies lasiocarpa)* may occur at the higher elevations. The subcanopy layer is variable. Some areas have minimal shrub and forb cover and 40 percent moss cover. Other sites have a mixed shrub-forb-moss understory with a high diversity of species. Common shrub species include devilsclub *(Oplopanax horridus),* Sitka alder *(Alnus viridis ssp. sinuata), Viburnum edule, Menziesia ferruginea,* and *Vaccinium ovalifolium*. Forb species include *Gymnocarpium dryopteris, Athyrium filix-femina, Dryopteris expansa, Streptopus amplexifolius, Boschniakia rossica, Trientalis europaea, Orthilia secunda,* and *Moneses uniflora.*

Community Pathways

Pathway Number	**Pathway Name & Description**
1.1A	Occasional, brief flooding
1.1B	Occasional, lower velocity, brief flooding
1.1C	Partial tree removal or brush management
1.1D	Total tree removal

Phase 1.2			
Community Phase Number:	1.2	**Community Phase Name:**	Sitka Spruce-Poplar Community
Community Phase Narrative:			
Following a flood of brief duration, lichen becomes established on bare rock, resulting in an early successional lichen community. The ground cover is approximately 15 percent bare rock, 75 percent lichen, and 10 percent moss. Common lichen species include *Stereocaulon* and *Cladina rangiferina*. Overstory vegetation includes nearly 35 percent regenerating to medium-sized Sitka spruce *(Picea sitchensis),* western hemlock *(Tsuga heterophylla),* and *Populus balsamifera.* Shrub cover may be as much as 80 percent, including *Menziesia* and Sitka alder *(Alnus viridis ssp. sinuata)*.			
Community Pathways			
Pathway Number	**Pathway Name & Description**		
1.2A	Time since a flood		

Phase 1.3			
Community Phase Number:	1.3	**Community Phase Name:**	Sitka Spruce-Paper Birch-Western Hemlock-Alder Community
Community Phase Narrative:			
This is the mid to late sere community phase following a flood. As the plant community progresses from an early sere community into a mid sere community, shrub cover decreases and tree cover and size of trees increases. This shrub community consists dominantly of Sitka alder (*Alnus viridis ssp. sinuata*) and *Menziesia* and smaller proportions of *Salix sitchensis.* Shrub cover is as much as 80 percent. Tree canopy cover is about 25 percent and is comprised mostly of medium-sized trees (15 to 40 feet tall) and some tall trees (more than 40 feet), including *Populus balsamifera*, western hemlock *(Tsuga heterophylla),* and Sitka spruce *(Picea sitchensis).*			
Community Pathways			
Pathway Number	1.3		
1.3A	Time since a flood		
1.3B	Occasional, brief flooding		

Phase 1.4			
Community Phase Number:	1.4	**Community Phase Name:**	Rusty Menziesia Scrub-Moss Community
Community Phase Narrative:			
This is an early sere plant community that is recovering from brush management. This community phase is of limited extent adjacent to roads. The vegetation is dominantly shrubs such as *Menziesia ferruginea* and *Oplopanax*. Regenerating Sitka spruce *(Picea sitchensis)* and paper birch *(Betula papyrifera var. papyrifera)* may make up as much as 15 percent tree cover. Moss cover may be as much as 25 percent.			
Community Pathways			
Pathway Number	**Pathway Name & Description**		
1.4A	Time since brush removal		

Phase 1.5			
Community Phase Number:	1.5	**Community Phase Name:**	Regenerating Sitka Spruce-Paper Birch Forest
Community Phase Narrative:			
This is a mid sere plant community that is recovering from brush management. The community phase is comprised of a few tall western hemlock *(Tsuga heterophylla)* and Sitka spruce *(Picea sitchensis)* trees and as much as 15 percent cover of regenerating Sitka spruce *(Picea sitchensis)* and paper birch *(Betula papyrifera var. papyrifera)*. Shrub cover may be nearly 40 percent with species such as devilsclub *(Oplopanax horridus), Menziesia, Ribes triste, Viburnum edule, Rubus idaeus ssp. Idaeus*, and *Aruncus*. Forb cover may be nearly 40 percent with species such as *Gymnocarpium dryopteris, Dryopteris expansa, Cornus, Streptopus amplexifolius*, and *Chamerion angustifolium*.			
Community Pathways			
Pathway Number	**Pathway Name & Description**		
1.5A	Time since brush management or total tree removal		
1.5B	Brush management		