Region 6 FCCS Fuelbed Pathways Handbook

Eastside Pine prior to harvesting (2002) Strata - E2G (approx. 300+ Trees Per Ac.)

Eastside Pine after harvesting (2002) Strata - E3N (approx. 90-110 Trees Per Ac.)

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Table 1. Descriptions of pathway change agents (harvest types, fuel treatments, and natural events)

Change Agent	Code	Description
Avalanche	Av	Snow or rock slide that results in vegetation damage or clearing.
Clearcut	CC	Harvest of all or nearly all trees in a forest stand.
Grazing	Graz	Allowing cattle and other herbivores to feed on grass and herbaceous plants.
Insect and disease outbreak	I&D	Mortality of trees and other vegetation from insect attacks and disease, leading to accumulation of dead fuels.
Invasive species - cheatgrass	Cheat	The invasion of cheatgrass, a foreign species, into a native ecosystem.
Mastication	Mast	Mechanical fuel treatment that changes the structure and size of fuels. Vegetation is chopped, ground, or chipped, with resulting material left on the ground.
Native seeding	Seed	Altering an area in order to restore it to a "natural fire regime condition" by removing or treating fuels through a variety of management practices such as prescribed burning, chipping, mastication, or planting preferable (usually native) species.
None		No recent harvest, fuel treatment, or natural change agent.
Pile	Pile	Concentration of woody fuels into piles that will be burned in the future.
Pile Burn	PB	Concentration of woody fuels into piles and burning.
Precommercial thin	PCT	Thinning harvest in which small trees are removed throughout a forest stand to increase growth, decrease ladder fuels, and achieve other management objectives.
Prescribed burn	Rx	Application of controlled fire to obtain planned objectives for silviculture, wildlife habitat, grazing, and fire hazard reduction.
Salvage harvest	Salv	Dead and/or live tree removal from an area that has burned by a wildfire.
Selection cut	SC	Thinning harvest in which large trees are removed from a stand. Sometimes termed "thinning from above." In some cases, other species, such as western juniper, may be removed during the same thinning entry to reduce competition, ladder fuels, or meet other management objectives (juniper removal).
Wildfire	WF	An unplanned wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out.
Wildfire - ground fuels	WF(Ground)	A wildfire confined to surface fuels.

Low to Moderate Elevation

Dry Site Pathways

Ponderosa pine (hot, dry)

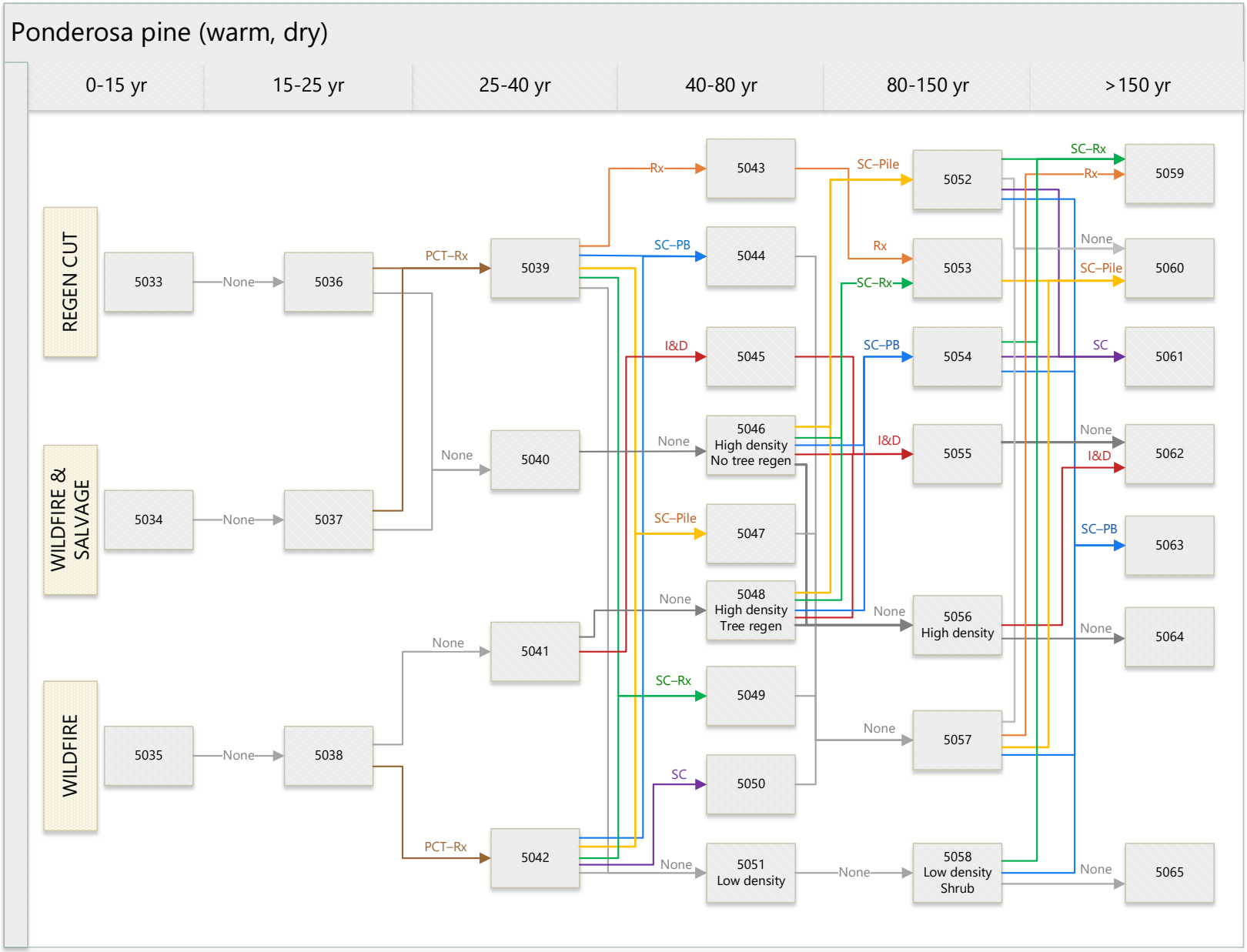
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5001	0-15	Wildfire	Hot, dry ponderosa pine forest. Established less than 15 years ago by wildfire. Stand initiation phase with grass understory.
5002	15-40	Precommercial thin	Hot, dry ponderosa pine forest. Established 15 to 40 years ago after wildfire. Recent precommercial thin. Low-density with pole-sized conifers.
5003	15-40	Precommercial thin and prescribed burn	Hot, dry ponderosa pine forest. Established 15 to 40 years ago after wildfire. Recent precommercial thin and prescribed burn. Low-density with pole-sized conifers.
5004	15-40	None	Hot, dry ponderosa pine forest. Established after wildfire 15 to 40 years ago with a high-density of juniper regeneration.
5005	15-40	None	Hot, dry ponderosa pine forest. Established after wildfire 15 to 40 years ago with a high-density of seedlings and saplings.
5006	15-40	Invasive species - cheatgrass	Hot, dry ponderosa pine forest. Established after wildfire 15 to 40 years ago. High-density seedlings and saplings with a cheatgrass understory.
5007	40-80	Prescribed burn	Hot, dry ponderosa pine forest. Established 40-80 years ago by wildfire. Past precommercial thin and recent prescribed burned. Single layer, low-density stand with pinegrass/herb understory.
5008	40-80	None	Hot, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire with no subsequent management. High-density pole-sized conifers.
5009	40-80	Selection cut and pile burn	Hot, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire. Recent thin and pile burn.
5010	40-80	Selection cut and prescribed burn	Hot, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire. Recent thin and prescribed burn.
5011	40-80	Selection cut and piling	Hot, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire. Recent thin with slash piling.
5012	40-80	None	Hot, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire. Past precommercial thin and prescribed burn but no recent management.
5013	40-80	Selection cut and pile burn	Hot, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire. Recent thin to reduce juniper encroachment followed by pile burn.
5014	40-80	None	Hot, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire. High-density, single layer forest.
5015	40-80	Native seeding	Hot, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire with cheatgrass invasion in the understory. Recent seeding of perennial grasses to reduce cheatgrass.
5016	80-150	Prescribed burn	Hot, dry ponderosa pine forest. Established 80 to 150 years ago following wildfire. Recent prescribed burn.
5017	80-150	Selection cut and pile burn	Hot, dry ponderosa pine forest. Established 80 to 150 years ago. Recent thin and pile burn. Low-density forest with a grass understory.
5018	80-150	Insect and disease outbreak	Hot, dry ponderosa pine forest. Established 80 to 150 years ago. High-density forest with significant mortality due to insects and disease.

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5019	80-150	None	Hot, dry ponderosa pine forest. Established 80 to 150 years ago. High-density forest with no history of management.
5020	80-150	None	Hot, dry ponderosa pine and bitterbrush forest. Established 80 to 150 years ago. Low-density forest with bitterbrush and or sagebrush understory. No recent management.
5021	80-150	Selection cut and piling	Hot, dry ponderosa pine forest. Established 80 to 150 years ago. Recent thin and slash piling. Low-density.
5022	80-150	None	Hot, dry ponderosa pine forest. Established 80 to 150 years ago by wildfire. Low-density forest from past thin. No recent management.
5023	80-150	Selection cut and prescribed burn	Hot, dry ponderosa pine forest. Established 80 to 150 years ago. Recent thin and prescribed burn.
5024	150+	Prescribed burn	Hot, dry ponderosa pine forest. Established over 150 years ago. Recent prescribed burn.
5025	150+	Selection cut and pile burn	Hot, dry ponderosa pine forest. Established over 150 years ago following wildfire or clearcut harvest. Recent thin and pile burn.
5026	150+	Selection cut and piling	Hot, dry ponderosa pine forest. Established over 150 years ago. Recent thin with slash piling.
5027	150+	Insect and disease outbreak	Hot, dry ponderosa pine forest. Established over 150 years ago with no subsequent management. Insect and disease infestations have resulted in heavy downed woody fuel load.
5028	150+	None	Hot, dry ponderosa pine forest. Established over 150 years ago with no subsequent management. High-density forest with insect and disease infestations that have resulted in heavy downed woody fuel load.
5029	150+	None	Hot, dry ponderosa pine bitterbrush forest. Established 150 years ago. Precommercially thinned at approximately 25 years with no subsequent management. Low-density forest with a bitterbrush and/or sagebrush understory.
5030	150+	None	Hot, dry ponderosa pine forest. Established over 150 years ago. Stand had previous select tree harvest with logging slash piled, but no recent management activity.
5031	150+	Selection cut and prescribed burn	Hot, dry ponderosa pine forest. Established over 150 years ago. Recent thin and prescribed burn, resulting in a low-density forest with a pinegrass understory.
5032	150+	Selection cut	Hot, dry ponderosa pine forest. Established over 150 years ago. Recent thin.

Ponderosa pine (warm, dry)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5033	0-15	Clearcut	Warm, dry ponderosa pine forest. Established less than 15 years ago from seed tree or shelterwood harvest. Stand initiation with grass-dominated understory.
5034	0-15	Wildfire and salvage harvest	Warm, dry ponderosa pine forest. Established less than 15 years ago by wildfire and salvage harvest. Stand initiation with grass-dominated understory.
5035	0-15	Wildfire	Warm, dry ponderosa pine forest. Established less than 15 years ago by wildfire. Stand initiation with grass-dominated understory.
5036	15-25	None	Warm, dry ponderosa pine forest. Established 15 to 25 years ago after seed tree or shelterwood harvest with no subsequent management. High-density tree regeneration.
5037	15-25	None	Warm, dry ponderosa pine forest. Established 15 to 25 years ago by wildfire and salvage logging with no subsequent management. High-density regeneration.
5038	15-25	None	Warm, dry ponderosa pine forest. Established 15 to 25 years ago after wildfire with no subsequent management. Woody fuels are relatively high due from snag fall.
5039	25-40	Precommercial thin and prescribed burn	Warm, dry ponderosa pine forest. Established 25-40 years ago after wildfire and salvage logging or regeneration cut. Recent precommercial thin and prescribed burned.
5040	25-40	None	Warm, dry ponderosa pine forest. Established 25 to 40 years ago by or wildfire and salvage logging or regeneration cut. High-density regeneration.
5041	25-40	None	Warm, dry ponderosa pine forest. Established 25 to 40 years ago after wildfire with no subsequent management. High-density forest of pole-sized conifers.
5042	25-40	Precommercial thin and prescribed burn	Warm, dry ponderosa pine forest. Established 25 to 40 years ago after wildfire. Recent precommercial thin and prescribed fire.
5043	40-80	Prescribed burn	Warm, dry ponderosa pine forest. Established 40 to 80 years ago by wildfire and salvage logging or regeneration harvest. Recent prescribed burn. Single layer, low-density stand with pinegrass/herb understory.
5044	40-80	Selection cut and pile burn	Warm, dry ponderosa pine forest. Established 40 to 80 years ago. Recent thin and pile burn.
5045	40-80	Insect and disease outbreak	Warm, dry ponderosa pine forest. Established 40 to 80 years ago by wildfire. Recent insect and disease outbreak. Shrub stratum is composed of low-density, bitterbrush and/or sagebrush.
5046	40-80	None	Warm, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire and salvage logging with no subsequent management. High-density young forest.
5047	40-80	Selection cut and piling	Warm, dry ponderosa pine forest. Established 40 to 80 years ago by wildfire. Recent thin and slash piling.
5048	40-80	None	Warm, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire with no subsequent management. Single layer, High-density stand.
5049	40-80	Selection cut and prescribed burn	Warm, dry ponderosa pine forest. Established 40 to 80 years ago after wildfire or regeneration harvest. Recent thin and prescribed burn.

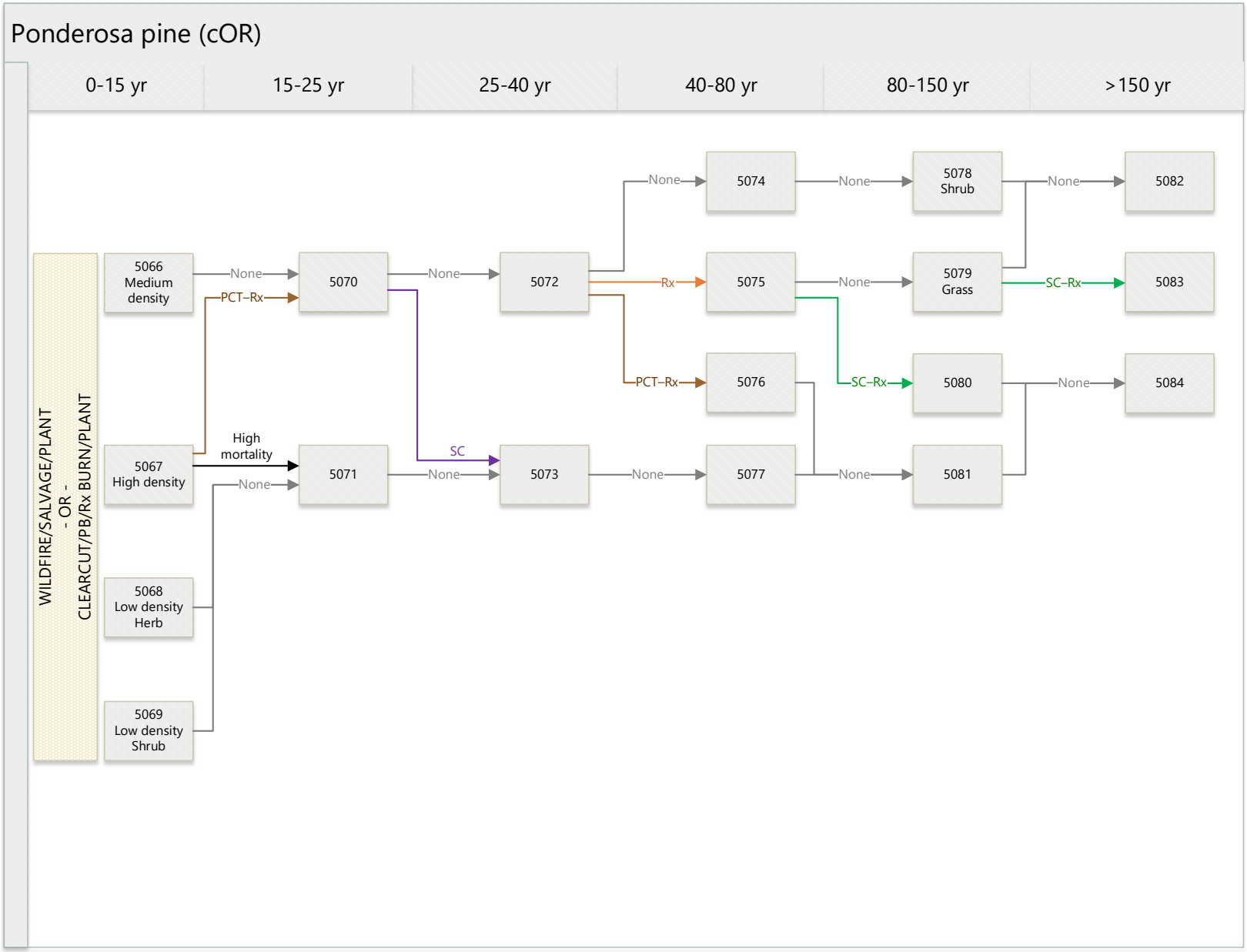
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5050	40-80	Selection cut	Warm, dry ponderosa pine forest. Established 40 to 80 years ago by wildfire. Recent thin.
5051	40-80	None	Warm, dry ponderosa pine forest. Established 40 to 80 years ago by wildfire. Precommercially thinned and prescribed burned in the past with no recent management. Single layer, low-density stand with bitterbrush and/or sagebrush shrubs.
5052	80-150	Selection cut and piling	Warm, dry ponderosa pine forest. Established 80 to 150 years ago. Recent thin and slash piling. Grass-dominated understory.
5053	80-150	Selection cut and prescribed burn	Warm, dry ponderosa pine forest. Established 80 to 150 years ago. Recent thin and prescribed burn. Grass-dominated understory.
5054	80-150	Selection cut and pile burn	Warm, dry ponderosa pine forest. Established 80 to 150 years ago. Recent thin and pile burn. Grass-dominated understory.
5055	80-150	Insect and disease outbreak	Warm, dry ponderosa pine forest. Established 80 to 150 years ago with no subsequent management. High-density stand with significant mortality due to insects and disease.
5056	80-150	None	Warm, dry ponderosa pine forest. Established 80 to 150 years ago. High-density stand with no history of management.
5057	80-150	None	Warm, dry ponderosa pine forest. Established 80 to 150 years ago by wildfire. Past select tree harvest but no recent management.
5058	80-150	None	Warm, dry ponderosa pine and bitterbrush forest. Established 80 to 150 years ago. Past precommercial thin resulted in a low-density stands with bitterbrush and or sagebrush shrub layer.
5059	150+	Selection cut and prescribed burn	Warm, dry ponderosa pine forest. Established over 150 years ago. Recent thin and prescribed burn. Pinegrass understory.
5060	150+	Selection cut and piling	Warm, dry ponderosa pine forest. Established over 150 years ago. Recent thin and slash piling.
5061	150+	Selection cut	Warm, dry ponderosa pine forest. Established over 150 years ago. Recent thin. Pinegrass understory.
5062	150+	Insect and disease outbreak	Warm, dry ponderosa pine forest. Established over 150 years ago with no history of management. Insect and disease infestations have resulted in heavy downed woody fuel load.
5063	150+	Selection cut and pile burn	Warm, dry ponderosa pine forest. Established over 150 years ago. Recent thin and pile burn. Pinegrass understory.
5064	150+	None	Warm, dry ponderosa pine forest. Established over 150 years ago with no history of management. High-density.
5065	150+	None	Warm, dry ponderosa pine bitterbrush forest. Established 150 years ago. Precommercially thinned during the stem exclusion stage with no subsequent management. Stand is composed of low-density trees with a bitterbrush and/or sagebrush understory.


Ponderosa pine (warm, dry)
0-15 yr
15-25 yr
25-40 yr
40-80 yr
80-150 yr
>150 yr
REGEN CUT
WILDFIRE & SALVAGE
WILDFIRE
5033
5034
5035
None
None
None
5036
5037
5038
PCT–Rx
None
None
PCT–Rx
5039
5040
5041
5042
Rx
SC–PB
I&D
None
SC–Pile
None
SC–Rx
SC
None
5043
5044
5045
5046
High density
No tree regen
5047
5048
High density
Tree regen
5049
5050
5051
Low density
SC–Pile
Rx
SC–Rx
SC–PB
I&D
None
None
None
5052
5053
5054
5055
5056
High density
5057
5058
Low density
Shrub
SC–Rx
Rx
None
SC–Pile
SC
None
I&D
SC–PB
None
None
5059
5060
5061
5062
5063
5064
5065

Ponderosa pine (cOR)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5066	0-15	Clearcut and prescribed burn or wildfire and salvage harvest	Eastern Oregon ponderosa pine forest. Stand initiation after clearcut harvest and prescribed burn, or wildfire and salvage logging. Medium-density planted pines (50-200 tpa) and shrub understory.
5067	0-15	Clearcut and prescribed burn or wildfire and salvage harvest	Eastern Oregon ponderosa pine forest. Established less than 15 years ago after clearcut harvest and prescribed burn, or wildfire and salvage logging. High-density planted pines (over 200 tpa) with shrub understory.
5068	0-15	Clearcut and prescribed burn or wildfire and salvage harvest	Eastern Oregon ponderosa pine forest. Established less than 15 years ago after clearcut harvest and prescribed burn, or wildfire and salvage logging. Low-density planted pines (<50 tpa) with grass understory.
5069	0-15	Clearcut and prescribed burn or wildfire and salvage harvest	Eastern Oregon ponderosa pine forest. Established less than 15 years ago after clearcut harvest and prescribed burn, or wildfire and salvage logging. Low-density planted pines (<50 tpa) and shrub understory.
5070	15-25	Precommercial thin and prescribed burn	Eastern Oregon ponderosa pine forest. Established 15 to 25 years ago. Stands were planted at medium- or high-density and were recently precommercially thinned and prescribed burned.
5071	15-25	None	Eastern Oregon ponderosa pine forest. Established 15 to 25 years ago. Sparse overstory and low-density saplings due to low survival of planted seedlings.
5072	25-40	None	Eastern Oregon ponderosa pine forest. Established 25 to 40 years ago. Planted at medium-density with no subsequent management.
5073	25-40	Selection cut	Eastern Oregon ponderosa pine forest. Established 25 to 40 years ago. Low-density.
5074	40-80	None	Eastern Oregon ponderosa pine forest. Established 40 to 80 years ago. Current stands result from natural development of low-density stands or commercial thinning of medium-density stands.
5075	40-80	Prescribed burn	Eastern Oregon ponderosa pine forest. Established 40 to 80 years ago. Recent prescribed burn.
5076	40-80	Precommercial thin and prescribed burn	Eastern Oregon ponderosa pine forest. Established 40 to 80 years ago. Recent thin and prescribed burn.
5077	40-80	None	Eastern Oregon ponderosa pine forest. Established 40 to 80 years ago. Planted at low-density or had low seedling survival with no subsequent management.
5078	80-150	None	Eastern Oregon ponderosa pine forest. Established 80 to 150 years ago. Stands were planted at medium-density with no subsequent management.
5079	80-150	None	Eastern Oregon ponderosa pine forest. Established 80 to 150 years ago. Planted at medium-density with no subsequent management.
5080	80-150	Selection cut and prescribed burn	Eastern Oregon ponderosa pine forest. Established 80 to 150 years ago. Recent thin and prescribed burn.
5081	80-150	None	Eastern Oregon ponderosa pine forest. Established 80 to 150 years ago. Past thin with no recent management.
5082	150+	None	Eastern Oregon ponderosa pine forest. Established over 150 years ago with no subsequent management.

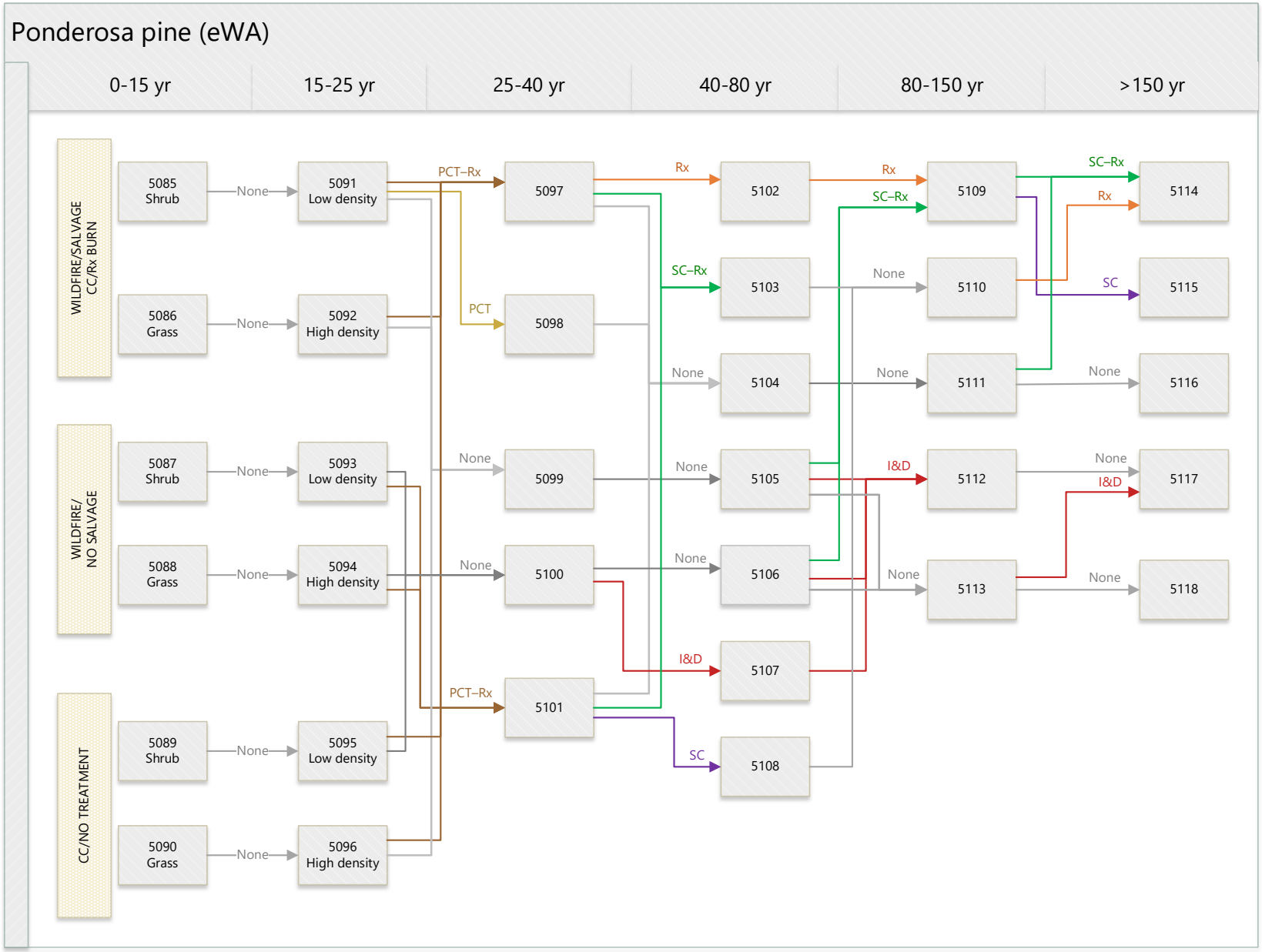
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5083	150+	Selection cut and prescribed burn	Eastern Oregon ponderosa pine forest. Established over 150 years ago. Recent thin and prescribed burn.
5084	150+	None	Eastern Oregon ponderosa pine forest. Established over 150 years ago. Past thin and prescribed burn. Low-density.


Ponderosa pine (cOR)
0-15 yr
15-25 yr
25-40 yr
40-80 yr
80-150 yr
>150 yr
WILDFIRE/SALVAGE/PLANT
- OR -
CLEARCUT/PB/Rx BURN/PLANT
5066 Medium density
5067 High density
5068 Low density Herb
5069 Low density Shrub
5070
5071
5072
5073
5074
5075
5076
5077
5078 Shrub
5079 Grass
5080
5081
5082
5083
5084
None
PCT–Rx
High mortality
SC
Rx
SC–Rx

Ponderosa pine (eWA)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5085	0-15	Clearcut and prescribed burn or wildfire and salvage harvest	Eastern Washington ponderosa pine forest. Established less than 15 years ago by clearcutting and prescribed burning or pile burning, or by wildfire and salvage logging. Shrub understory.
5086	0-15	Clearcut and prescribed burn or wildfire and salvage harvest	Eastern Washington ponderosa pine forest. Established less than 15 years ago by clearcutting and prescribed burning or pile burning, or by wildfire and salvage logging. Grass understory.
5087	0-15	Wildfire	Eastern Washington ponderosa pine forest. Established less than 15 years ago after wildfire. Shrub understory.
5088	0-15	Wildfire	Eastern Washington ponderosa pine forest. Established less than 15 years ago by wildfire. Grass understory.
5089	0-15	Clearcut	Eastern Washington ponderosa pine forest. Established less than 15 years ago from seed tree or shelterwood harvest. Shrub understory.
5090	0-15	Clearcut	Eastern Washington ponderosa pine forest. Established less than 15 years ago from seed tree or shelterwood harvest without surface fuel treatment. Grass understory.
5091	15-25	Wildfire and salvage harvest	Eastern Washington ponderosa pine forest. Established 15 to 25 years ago after clearcut harvest and prescribed burning, or by wildfire and salvage logging. Mature shrubland with low-density tree regeneration.
5092	15-25	Wildfire and salvage harvest	Eastern Washington ponderosa pine forest. Established 15 to 25 years ago after clearcut harvest and prescribed burning, or by wildfire and salvage logging. High-density seedlings and saplings in the understory.
5093	15-25	Wildfire	Eastern Washington ponderosa pine forest. Established 15 to 25 years ago after wildfire with no subsequent management. Low-density.
5094	15-25	Wildfire	Eastern Washington ponderosa pine forest. Established 15 to 25 years ago after wildfire. Dense seedlings and saplings have become established.
5095	15-25	Clearcut	Eastern Washington ponderosa pine forest. Established 15 to 25 years ago after seed tree or shelterwood harvest with no subsequent management. Mature shrubland with tree regeneration.
5096	15-25	Clearcut	Eastern Washington ponderosa pine forest. Established 15 to 25 years ago after seed tree or shelterwood harvest, resulting in a grassland. High-density tree regeneration.
5097	25-40	Precommercial thin and prescribed burn	Eastern Washington ponderosa pine forest. Established 25 to 40 years ago after clearcut and prescribed burning, or wildfire and salvage logging. Recent precommercial thin and prescribed burn.
5098	25-40	Precommercial thin	Eastern Washington ponderosa pine forest. Established 25 to 40 years ago after clearcutting and prescribed burning, or wildfire and salvage logging. Recent precommercial thin.
5099	25-40	None	Eastern Washington ponderosa pine forest. Established 25 to 40 years ago by clearcutting and prescribed burning, or wildfire and salvage logging. High-density.
5100	25-40	None	Eastern Washington ponderosa pine forest. Established 25 to 40 years ago after wildfire with no subsequent management. High-density stand of pole-sized conifers.

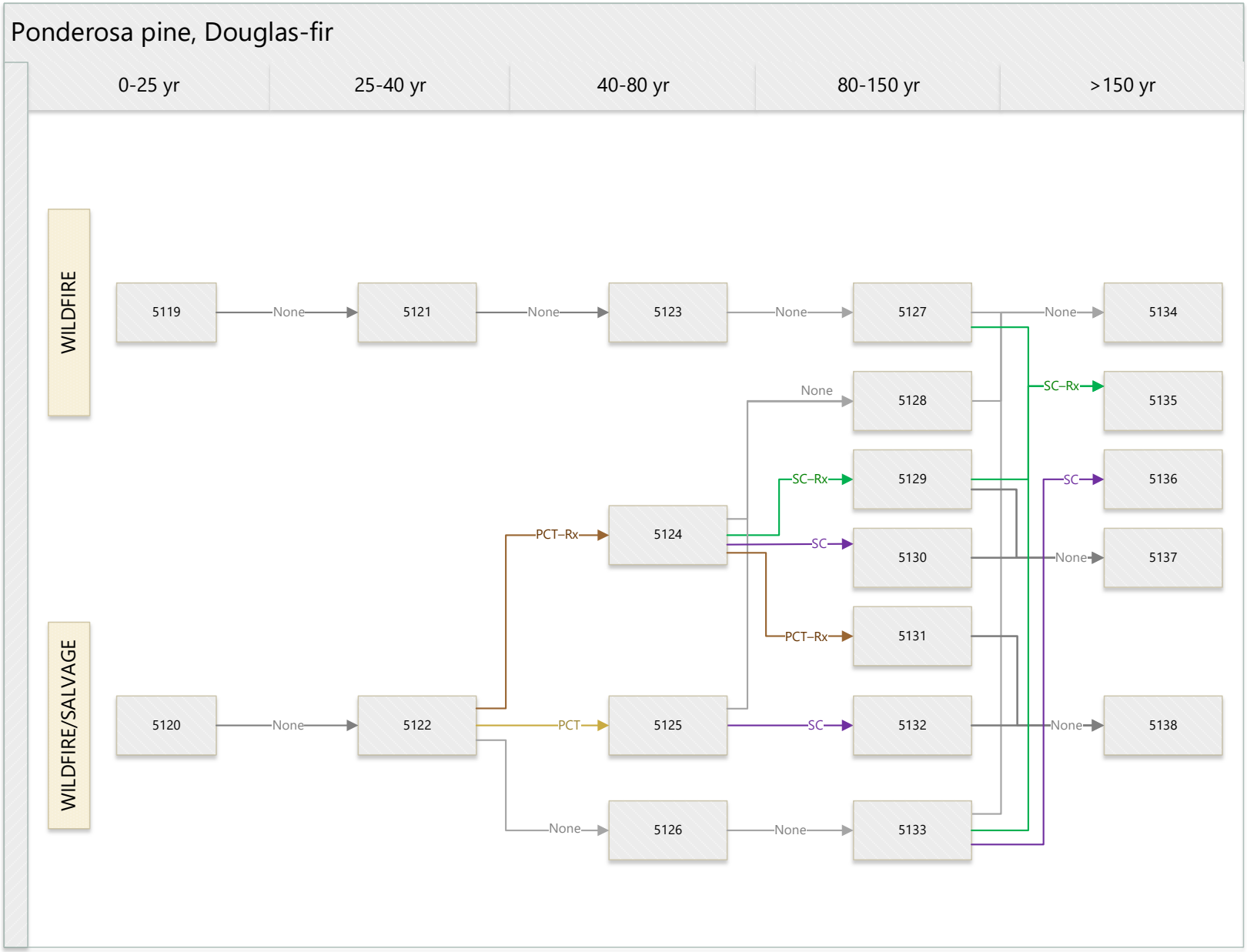
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5101	25-40	Precommercial thin and prescribed burn	Eastern Washington ponderosa pine forest. Established 25 to 40 years ago after wildfire. Recent precommercial thin and prescribed burn. Low-density, pole-sized conifers.
5102	40-80	Prescribed burn	Eastern Washington ponderosa pine forest. Established 40 to 80 years ago. Recent prescribed burn. Single layer, low-density stand with pinegrass/herb understory.
5103	40-80	Selection cut and prescribed burn	Eastern Washington ponderosa pine forest. Established 40-80 years ago. Recent thin and prescribed burn.
5104	40-80	None	Eastern Washington ponderosa pine forest. Established 40 to 80 years ago. Single layer, low-density stand with bitterbrush and/or sagebrush shrubs.
5105	40-80	None	Eastern Washington ponderosa pine forest. Established 40 to 80 years ago. High-density with grass understory.
5106	40-80	None	Eastern Washington ponderosa pine forest. Established 40 to 80 years ago. Single layer, high-density stand.
5107	40-80	Insect and disease outbreak	Eastern Washington ponderosa pine forest. Established 40 to 80 years ago. Shrub stratum is composed of low-density, bitterbrush and/or sagebrush. Insect and disease outbreak.
5108	40-80	Selection cut	Eastern Washington ponderosa pine forest. Established 40 to 80 years ago. Recent thin.
5109	80-150	Selection cut and prescribed burn	Eastern Washington ponderosa pine forest. Established 80 to 150 years ago. Recent thin and prescribed burn.
5110	80-150	None	Eastern Washington ponderosa pine forest. Established 80 to 150 years ago. Past thin. No recent management. Low-density.
5111	80-150	None	Eastern Washington ponderosa pine forest. Established 80 to 150 years ago. Low-density stands with bitterbrush and or sagebrush shrub layer, resulting from early precommercial thinning. No recent management.
5112	80-150	Insect and disease outbreak	Eastern Washington ponderosa pine forest. Established 80 to 150 years ago. High-density stand with significant mortality due to insects and disease.
5113	80-150	None	Eastern Washington ponderosa pine forest. Established 80 to 150 years ago. High-density stand with no history of management.
5114	150+	Selection cut and prescribed burn	Eastern Washington ponderosa pine forest. Established over 150 years ago. Recent thin and prescribed burn.
5115	150+	Selection cut	Eastern Washington ponderosa pine forest. Established over 150 years ago. Recent thin.
5116	150+	None	Eastern Washington ponderosa pine forest. Established 150 years ago. Precommercially thinned during stem exclusion with no subsequent management. Low-density with a bitterbrush and/or sagebrush understory.
5117	150+	Insect and disease outbreak	Eastern Washington ponderosa pine forest. Established over 150 years ago with no history of management. Insect and disease infestations have resulted in heavy downed woody fuel load.
5118	150+	None	Eastern Washington ponderosa pine forest. Established over 150 years ago with no history of management. High-density.


Ponderosa pine (eWA)
0-15 yr
15-25 yr
25-40 yr
40-80 yr
80-150 yr
>150 yr
WILDFIRE/SALVAGE CC/Rx BURN
WILDFIRE/ NO SALVAGE
CC/NO TREATMENT
5085 Shrub
5086 Grass
5087 Shrub
5088 Grass
5089 Shrub
5090 Grass
5091 Low density
5092 High density
5093 Low density
5094 High density
5095 Low density
5096 High density
5097
5098
5099
5100
5101
5102
5103
5104
5105
5106
5107
5108
5109
5110
5111
5112
5113
5114
5115
5116
5117
5118
None
PCT–Rx
PCT
Rx
SC–Rx
SC
I&D

Ponderosa pine, Douglas-fir

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5119	0-25	Wildfire	Ponderosa pine and Douglas-fir forest. Established less than 25 years ago after wildfire.
5120	0-25	Wildfire and salvage harvest	Ponderosa pine and Douglas-fir forest. Established less than 25 years ago following wildfire and salvage logging. Stand initiation phase with some shrub cover.
5121	25-40	None	Ponderosa pine and Douglas-fir forest. Dense, multi-layered young forest, 25 to 40 years old, with poles, seedlings and saplings, and some shrubs, sparsely distributed with grasses.
5122	25-40	None	Ponderosa pine and Douglas-fir forest. Established 25 to 40 years ago following wildfire with salvage logging. Dense, multi-layered forest with poles, seedlings, saplings, and natural fuel accumulations. Shrubs are sparsely distributed with grass.
5123	40-80	None	Ponderosa pine and Douglas-fir forest. Single layer mature forest, 40 to 80 years old, medium-density and medium coarse woody debris.
5124	40-80	Precommercial thin and prescribed burn	Ponderosa pine and Douglas-fir forest. Established 40 to 80 years ago following wildfire and salvage logging. Recent thinning and prescribed fire to reduce woody fuels, along with insect damage, have resulted in an open canopy.
5125	40-80	Precommercial thin	Ponderosa pine and Douglas-fir forest. Recent precommercial thin. Maturing forest, 40 to 80 years old, with open canopy.
5126	40-80	None	Ponderosa pine and Douglas-fir forest. Single-layer mature forest, 40 to 80 years old, medium-density, with natural fuel accumulations.
5127	80-150	None	Ponderosa pine and Douglas-fir forest. Single-layer mature forest, 80 to 150 years old, with understory reinitiation. Medium-density stand with natural fuel accumulations.
5128	80-150	None	Ponderosa pine and Douglas-fir forest. Multi-layered forest, 80 to 150 years old, moderate density, with natural fuel accumulations. Established after wildfire and salvage logging, with no subsequent management.
5129	80-150	Selection cut and prescribed burn	Ponderosa pine and Douglas-fir forest. Established 80 to 150 years ago. Recent thin and prescribed burn. Single-layer mature forest, open, light fuel loadings, and dry brush sparsely distributed with grasses.
5130	80-150	Selection cut	Ponderosa pine and Douglas-fir forest. Single-layer mature, open forest, 80 to 150 years old. Recent thin. Sparse understory dominated by grass.
5131	80-150	Precommercial thin and prescribed burn	Ponderosa pine and Douglas-fir forest. Single layer mature forest, 80 to 150 years old, low-density. Recent thin and prescribed burn.
5132	80-150	Selection cut	Ponderosa pine and Douglas-fir forest. Single-layer mature forest, 80 to 150 years old. Recent thin.
5133	80-150	None	Ponderosa pine and Douglas-fir forest. Established 80 to 150 years ago. Single-layer mature forest with understory reinitiation. Low-density stand with no history of active management.
5134	150+	None	Ponderosa pine and Douglas-fir forest. Multi-story mature forest, more than 150 years old. Medium- to high-density stand with no history of active management. Heavy natural fuel accumulations.

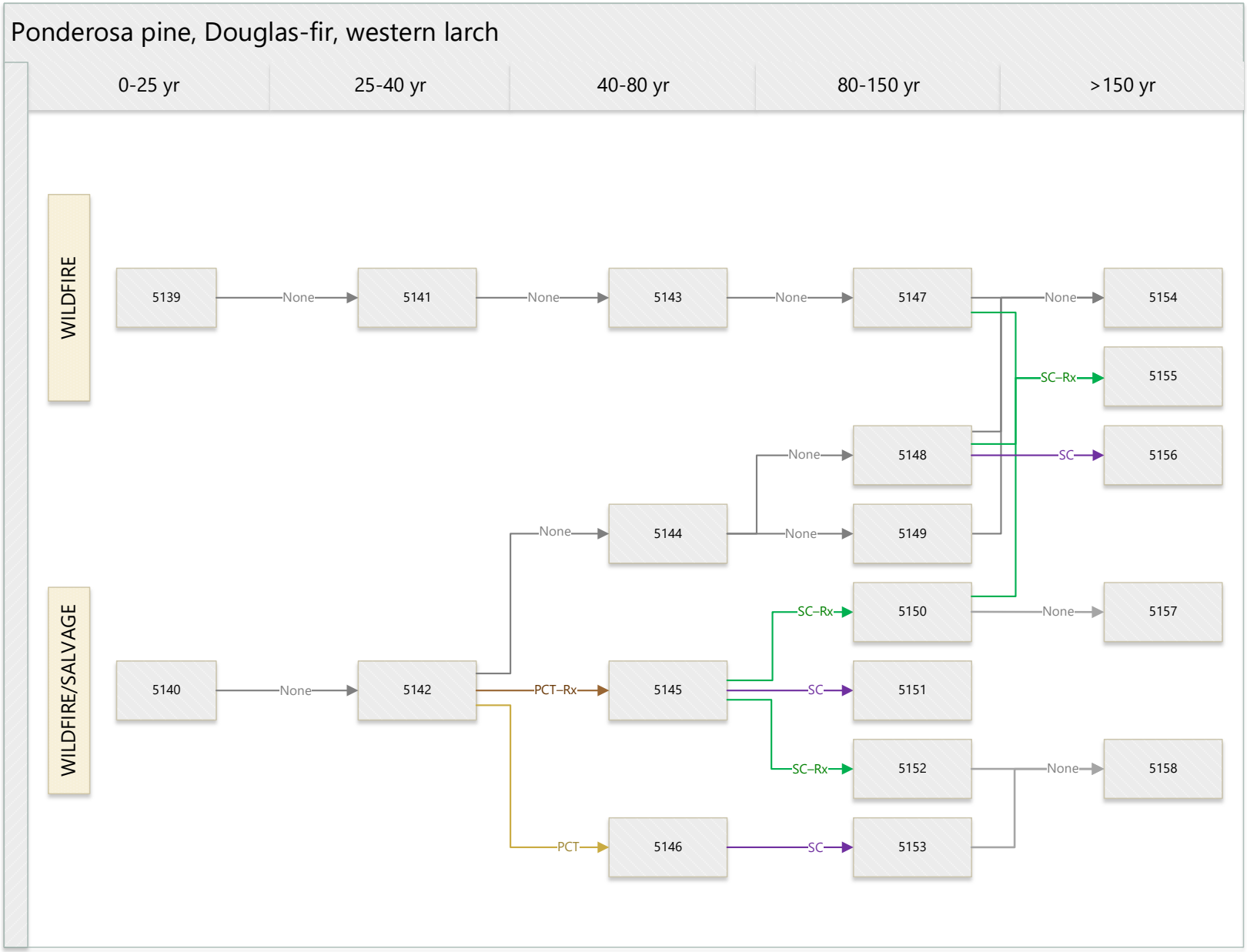
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5135	150+	Selection cut and prescribed burn	Ponderosa pine and Douglas-fir forest. Single-layer mature forest, over 150 years old. Recent thin and prescribed burn.
5136	150+	Selection cut	Ponderosa pine and Douglas-fir forest. Single-layer mature forest, over 150 years old. Recent thin.
5137	150+	None	Ponderosa pine and Douglas-fir forest. Single-layer mature, open forest with some understory reinitiation, over 150 years old. Thinned in the past but with no recent management. Low-density with some coarse wood from recently fallen snags. Understory of dry brush sparsely distributed among grasses.
5138	150+	None	Ponderosa pine and Douglas-fir forest. Established over 150 years ago with past thins but no recent management. Single-layer mature forest. Medium-density with light natural fuel loadings.


Ponderosa pine, Douglas-fir
0-25 yr
25-40 yr
40-80 yr
80-150 yr
>150 yr
WILDFIRE
WILDFIRE/SALVAGE
5119
5120
5121
5122
5123
5124
5125
5126
5127
5128
5129
5130
5131
5132
5133
5134
5135
5136
5137
5138
None
PCT–Rx
PCT
SC–Rx
SC

Ponderosa pine, Douglas-fir, western larch

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5139	0-25	Wildfire	Ponderosa pine, Douglas-fir, and western larch forest. Established less than 25 years ago following wildfire.
5140	0-25	Wildfire and salvage harvest	Ponderosa pine, Douglas-fir, and western larch forest. Established less than 25 years ago following wildfire and salvage logging. Stand initiation with shrub establishment in openings.
5141	25-40	None	Ponderosa pine, Douglas-fir, and western larch forest. Multi-layer young forest, 25 to 40 years old, with poles, seedlings and saplings, and some shrubs, sparsely distributed with grasses. High-density.
5142	25-40	None	Ponderosa pine, Douglas-fir, and western larch forest. Established 25 to 40 years ago following wildfire with salvage logging. Dense, multi-layered forest with poles, seedlings, saplings, and natural fuel accumulations. Shrubs are sparsely distributed with grass. Medium-density.
5143	40-80	None	Ponderosa pine, Douglas-fir, and western larch forest. Single layer mature forest, 40 to 80 years old, medium-density, with natural fuel accumulations. Ground cover dominated by pinegrass.
5144	40-80	None	Ponderosa pine, Douglas-fir, and western larch forest. Single-layer mature forest, 40 to 80 years old, medium-density, with natural fuel accumulations. Shrub and pine grass understory.
5145	40-80	Precommercial thin and prescribed burn	Ponderosa pine, Douglas-fir, and western larch forest. Established 40 to 80 years ago following wildfire and salvage logging. Recent thin and prescribed burn. Shrubs are sparsely distributed with grass.
5146	40-80	Precommercial thin	Ponderosa pine, Douglas-fir, and western larch forest. Recent precommercial thin. Maturing forest, 40 to 80 years old, with open canopy, and shrubs sparsely distributed with grass. Some insect damage.
5147	80-150	None	Ponderosa pine, Douglas-fir, and western larch forest. Single-layer mature forest, 80 to 150 years old, with understory reinitiation. High-density stand with natural fuel accumulations. Ground cover dominated by pinegrass.
5148	80-150	None	Ponderosa pine, Douglas-fir, and western larch forest. Established after fire with salvage logging 80 to 150 years ago. Single-layer mature forest with understory reinitiation. Medium-density stand with no history of active management.
5149	80-150	None	Ponderosa pine, Douglas-fir, and western larch forest. Multi-layered forest, 80 to 150 years old, moderate density, with natural fuel accumulations. Ground cover dominated by snowberry and pinegrass.
5150	80-150	Selection cut and prescribed burn	Ponderosa pine, Douglas-fir, and western larch forest. Established 80 to 150 years ago. Recent thin and prescribed burn. Single-layer mature forest, open, light fuel loadings, and dry brush sparsely distributed with grasses.
5151	80-150	Selection cut	Ponderosa pine, Douglas-fir, and western larch forest. Single-layer mature, open forest, 80 to 150 years old. Recent thin. Sparse understory of shrubs and grasses.

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5152	80-150	Selection cut and prescribed burn	Ponderosa pine, western larch, Douglas-fir forest. Single layer mature forest, 80 to 150 years old, low-density. Recent thin and prescribed burn. Understory dominated by snowberry, boxwood, wheatgrass, and pinegrass. Accumulated coarse woody debris.
5153	80-150	Selection cut	Ponderosa pine, Douglas-fir, and western larch forest. Single-layer mature forest, 80 to 150 years old. Recent thin. Understory dominated by snowberry, wheatgrass, boxwood, and pinegrass.
5154	150+	None	Ponderosa pine, Douglas-fir, and western larch forest. Multi-layered mature forest, more than 150 years old. Medium-density stand with no history of active management. Heavy natural fuel accumulations.
5155	150+	Selection cut and prescribed burn	Ponderosa pine, Douglas-fir, and western larch forest. Single-layer mature forest, over 150 years old. Recent thin and prescribed burn.
5156	150+	Selection cut	Ponderosa pine, Douglas-fir, and western larch forest. Single-layer mature forest, over 150 years old. Recent thin.
5157	150+	None	Ponderosa pine, Douglas-fir, and western larch forest. Single-layer mature, open forest with some understory reinitiation, over 150 years old. Precommercial and commercial thins in the past but no recent management. Low-density with medium woody fuel loadings from recently fallen snags. Understory of dry brush sparsely distributed among grasses.
5158	150+	None	Ponderosa pine, Douglas-fir, and western larch forest. Established over 150 years ago. Past thinning but no recent management. Single-layer mature forest. Low-density with light natural fuel loadings. Ground cover dominated by snowberry, wheatgrass, boxwood, and pinegrass.


Ponderosa pine, Douglas-fir, western larch
0-25 yr
25-40 yr
40-80 yr
80-150 yr
>150 yr
WILDFIRE
WILDFIRE/SALVAGE
5139
5140
5141
5142
5143
5144
5145
5146
5147
5148
5149
5150
5151
5152
5153
5154
5155
5156
5157
5158
None
PCT–Rx
PCT
SC–Rx
SC

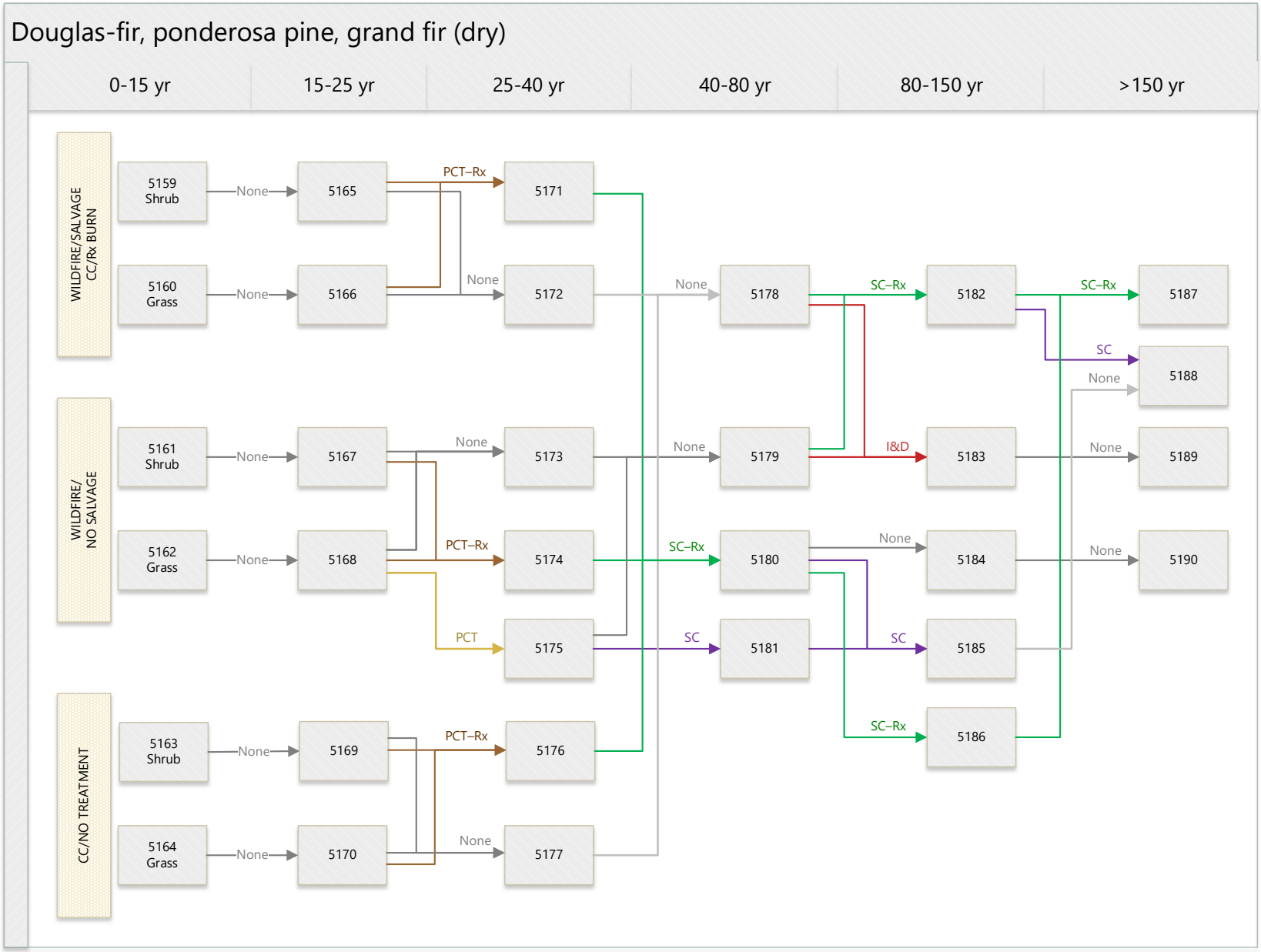
Douglas-fir, ponderosa pine, grand fir (dry)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5159	0-15	Clearcut and prescribed burn or wildfire and salvage harvest	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 0 to 15 years ago by clearcut harvest and prescribed burning, or wildfire and salvage logging. Stand initiation with shrub understory.
5160	0-15	Clearcut and prescribed burn or wildfire and salvage harvest	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 0 to 15 years ago from wildfire and salvage logging, or clearcut harvest and prescribed burning. Stand initiation with grass understory.
5161	0-15	Wildfire	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 0 to 15 years ago after wildfire with no salvage. Stand initiation with shrub understory.
5162	0-15	Wildfire	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 0 to 15 years ago after wildfire and salvage. Stand initiation with grass understory.
5163	0-15	Clearcut	Dry Douglas-fir, ponderosa pine, and grand fir forest. Occurs at middle elevations in the Cascade Range. Established 0 to 15 years ago from seed tree or shelterwood harvest, with no slash treatment. Stand initiation with shrub understory.
5164	0-15	Clearcut	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 0 to 15 years ago from regeneration harvest, with no slash treatment. Stand initiation with grass understory.
5165	15-25	None	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 15 to 25 years ago following clearcut and prescribed burning, or wildfire and salvage logging, with no subsequent management. Stand is composed of low-density seedlings and saplings with a shrub understory. Presence of defoliators, but not enough to be considered a change agent.
5166	15-25	None	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 15 to 25 years ago after clearcut and prescribed burning, or wildfire and salvage logging, with no subsequent management. Stand composed of low-density seedlings and saplings with a grass understory. Presence of defoliators, but not enough to be considered a change agent.
5167	15-25	None	Dry Douglas fir, ponderosa pine and grand fir forest. Established 15 to 25 years ago following wildfire with no salvage and no subsequent management. Low-density seedlings and saplings with minor component of defoliators present.
5168	15-25	None	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 15 to 25 years ago following wildfire with no salvage and no subsequent management. High-density seedlings and saplings. Minor defoliator infestation.
5169	15-25	None	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 15 to 25 years ago after regeneration cut with no slash treatment and no subsequent management. High-density seedlings and saplings. Minor defoliator infestation.
5170	15-25	None	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 15 to 25 years ago following a clearcut harvest with no slash treatment. Low-density seedlings and saplings. Minor defoliator infestation.

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5171	25-40	Precommercial thin and either pile burn or prescribed burn	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established 25 to 40 years ago. Recent precommercial thin and prescribed burn. Structure varies from open forest to woodland and some stands are open enough that ponderosa pine and lodgepole pine are present in the regeneration layer.
5172	25-40	None	Dry Douglas-fir, ponderosa pine and grand fir forest. Stands are 25 to 40 years old with no active management. Low-density seedlings and saplings. Minor defoliator infestation.
5173	25-40	None	Dry Douglas-fir, ponderosa pine and grand fir forest. Established 25 to 40 years ago following wildfire with no active management. High-density with accumulated coarse woody debris.
5174	25-40	Precommercial thin and either pile burn or prescribed burn	Dry Douglas-fir, ponderosa pine and grand fir forest. Stands are 25 to 40 years old. Recent precommercial thin and prescribed burn or pile burn. Stand structure varies from open forest to woodland and some sites are open enough that ponderosa pine and lodgepole pine are present in the regeneration layer. Medium-density.
5175	25-40	Precommercial thin	Dry Douglas-fir, ponderosa pine and grand fir forest. Established 25 to 40 years ago. Recent precommercial thin with no slash treatment. Stand structure varies from open forest to woodland and some sites re open enough that ponderosa pine and lodgepole pine are present in the regeneration layer.
5176	25-40	Precommercial thin and either pile burn or prescribed burn	Dry Douglas-fir, ponderosa pine and grand fir forest. Established 25 to 40 years ago. Recent precommercial thin and prescribed burn or pile burning. Stand structure varies from open forest to woodland and some sites are open enough that ponderosa pine and lodgepole pine are present in the regeneration layer. Medium-density.
5177	25-40	None	Dry Douglas-fir, ponderosa pine and grand fir forest. High-density stand established 25 to 40 years ago after clearcut harvest with no subsequent management. Minor defoliator infestation.
5178	40-80	None	Dry Douglas-fir, ponderosa pine, grand fir forest. Established 40 to 80 years ago after wildfire or clearcut with no subsequent management. High-density, single layer stand with heavy woody fuel loadings. Ponderosa pine is usually the older species in the stand but Douglas-fir and ponderosa pine are co-dominant.
5179	40-80	None	Dry Douglas-fir, ponderosa pine, grand fir forest. Established 40 to 80 years ago after wildfire with no subsequent management. Douglas-fir and ponderosa pine are co-dominant with Douglas-fir and grand fir in the regeneration and dense midstory layers.
5180	40-80	Selection cut and prescribed burn	Dry Douglas-fir, ponderosa pine and grand fir forest. Established 40 to 80 years ago after wildfire and salvage logging or clearcut harvest and prescribed fire. Recent select tree harvest and prescribed burn to reduce woody fuels. Single layer, low-density forest with light woody fuel loads. Ponderosa pine is usually the older species in the stand but Douglas-fir and ponderosa pine co-dominate overstory. Grand fir and Douglas-fir co-dominate the regeneration layer.
5181	40-80	Selection cut	Dry Douglas-fir, ponderosa pine, grand fir forest. Established 40 to 80 years ago after wildfire and salvage logging or clearcut harvest and prescribed burning. Recent thin. Ponderosa pine is usually the older species in the stand but Douglas-fir and ponderosa pine are co-dominant. Grand fir and Douglas-fir co-dominate the regeneration layer.

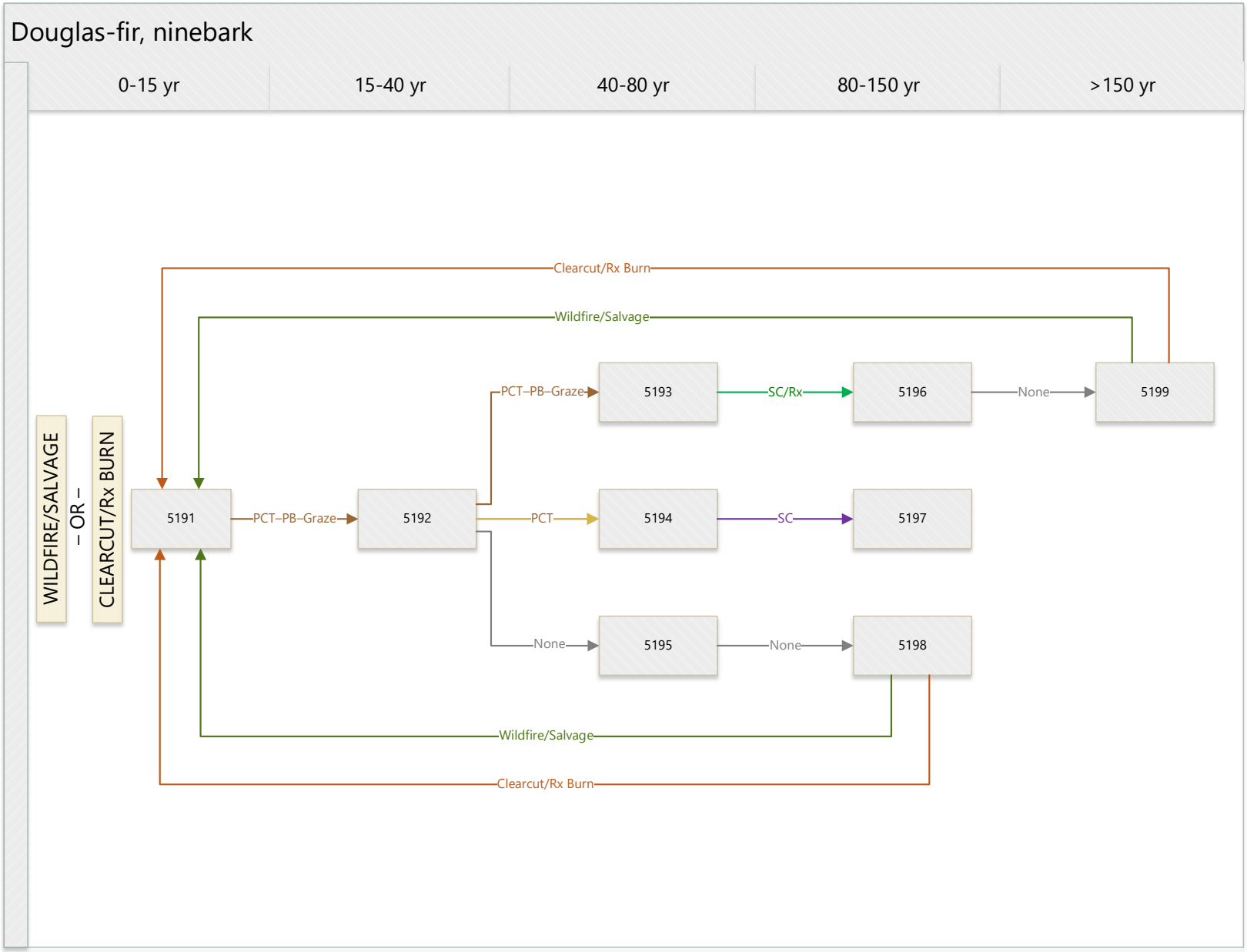
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5182	80-150	Selection cut and prescribed burn	Dry Douglas-fir, ponderosa pine, grand fir forest. Established 80 to 150 years ago. Generally open and co-dominated by ponderosa pine and Douglas-fir in early to mid seral stages. Recent thin and prescribed burn. Understory is dominated by grasses and sedges. Common shrub associates include serviceberry, shiny-leaf spirea, and ocean-spray.
5183	80-150	Insect and disease outbreak	Dry Douglas-fir, ponderosa pine, grand fir forest. Established 80 to 150 years ago with no subsequent management. Some insect and disease damage. Douglas-fir and ponderosa pine were co-dominant in earlier seral stages, but Douglas fir is dominant now and ponderosa pine occurs as scattered large trees. The understory is a discontinuous shrub layer interspersed with herbs. Common snowberry and creeping snowberry are dominant shrubs.
5184	80-150	None	Dry Douglas-fir, ponderosa pine and grand fir forest. Established 80 to 150 years ago. Previously thinned but with no recent management. Douglas-fir, often with ponderosa pine, dominates the sparse overstory of mid to late seral stands. Grand fir, lodgepole pine and several other tree species may also occur. The overstory is usually very open, almost a woodland in some cases, due to harsh site conditions. Grand fir and Douglas-fir co-dominate the regeneration layer. Some sites are open enough that ponderosa pine and lodgepole pine are present in the regeneration layer.
5185	80-150	Selection cut	Dry Douglas-fir, ponderosa pine, grand fir forest. Established 80 to 150 years ago. Have had repeated select tree harvests. The open structure of these stands allows ponderosa pine to continue its role as co-dominant. Douglas-fir is slightly more dominant in the regeneration layer. Bluebunch wheatgrass, along with elk sedge and/or pinegrass dominate all sites. Several shrubs are common but none are well-represented, including bitterbrush, serviceberry, bitter cherry, snowbrush ceonothus, and common snowberry.
5186	80-150	Selection cut and prescribed burn	Dry Douglas-fir, ponderosa pine, grand fir forest. Established 80 to 150 years ago. Past thinning and prescribed burning. The open structure of these stands allows ponderosa pine to continue its role as co-dominant. Douglas-fir is slightly more dominant in the regeneration layer. Bluebunch wheatgrass, along with elk sedge and/or pinegrass dominate all sites. Several shrubs are common but none are well-represented, including bitterbrush, serviceberry, bitter cherry, snowbrush ceonothus, and common snowberry.
5187	150+	Selection cut and prescribed burn	Dry Douglas-fir, ponderosa pine, grand fir forest. Established over 150 years ago. Recent thin and prescribed burn. Medium-density with medium woody fuel loads. Western larch may be present in overstory.
5188	150+	Selection cut	Dry Douglas-fir, ponderosa pine, grand fir forest. Established more than 150 years ago following wildfire or clearcut harvest. Stands have a history of thinning and select tree harvests, often with prescribed fire to reduce woody fuels. Stands had recent thin with no treatment of woody fuels.
5189	150+	None	Dry Douglas-fir, ponderosa pine, and grand fir forest. Established over 150 years ago after wildfire with no active management through stand development. Stands have past insect damage but no recent management activity or natural change agents. Douglas-fir dominates the overstory and grand fir and Douglas-fir co-dominate the regeneration layer.

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5190	150+	None	Dry Douglas-fir, ponderosa pine, grand fir forest. Established over 150 years ago following wildfire or clearcut harvest. Stands have history of thinning, but little active management in last 70 to 100 years. Douglas-fir and grand fir dominate all tree layers. Medium-density.


Douglas-fir, ponderosa pine, grand fir (dry)
0-15 yr
15-25 yr
25-40 yr
40-80 yr
80-150 yr
>150 yr
WILDFIRE/SALVAGE CC/Rx BURN
WILDFIRE/ NO SALVAGE
CC/NO TREATMENT
5159 Shrub
5160 Grass
5161 Shrub
5162 Grass
5163 Shrub
5164 Grass
5165
5166
5167
5168
5169
5170
5171
5172
5173
5174
5175
5176
5177
5178
5179
5180
5181
5182
5183
5184
5185
5186
5187
5188
5189
5190
None
PCT–Rx
PCT
SC–Rx
SC
I&D

Douglas-fir, ninebark

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5191	0-15	Wildfire	Douglas-fir and ninebark forest. Established less than 15 years ago after wildfire with salvage logging, or clearcut harvest and prescribed burning. Ninebark, snowberry, and pinegrass dominate shrub and herbaceous layer.
5192	15-40	Precommercial thin and pile burn and grazing	Douglas-fir and ninebark forest. Established 15 to 40 years ago after clearcut or wildfire. Recently precommercial thin, pile burning, and grazing. Low-density. Ninebark, snowberry, and pinegrass dominate shrub and herbaceous layer.
5193	40-80	Precommercial thin and pile burn and grazing	Douglas-fir and ninebark forest. Established following clearcut harvest or wildfire 40 to 80 years ago. Ninebark, snowberry, and pinegrass dominate shrub and herbaceous layer. Precommercially thinned, pile burned, and grazed. Low-density.
5194	40-80	Precommercial thin	Douglas-fir and ninebark forest. Established 40 to 80 years ago by clearcut harvest or wildfire. Past grazing and precommercial thinning. Recent precommercial thin. Ninebark, snowberry, and pinegrass dominate shrub and herbaceous layer.
5195	40-80	None	Douglas-fir and ninebark forest. Established 40 to 80 years ago following wildfire or clearcut harvest. Stand was precommercially thinned and grazed early but has had no recent management. Ninebark, snowberry, and pinegrass dominate shrub and herbaceous layer. Dense understory and thickets are developing.
5196	80-150	Selection cut and prescribed burn	Douglas-fir and ninebark forest. Established 80 to 150 years after wildfire or clearcut harvest. Previously thinned and grazed. Recent thin and prescribed burn has opened canopy, reduced woody fuels, and stimulated grass and shrub species. Pinegrass dominates herbaceous layer.
5197	80-150	Selection cut	Douglas-fir and ninebark forest. Established 80 to 150 years ago after wildfire or clearcut harvest. Previously precommercially thinned and grazed. A recent selective cut with no woody fuels treatment has opened the canopy and stimulated grass and shrub species. Pinegrass dominates herbaceous layer.
5198	80-150	None	Douglas-fir and ninebark forest. Established 80 to 150 years ago following clearcut harvest or wildfire. Previously thinned and grazed but with no subsequent management. Natural fuel accumulations and higher stand density results in closed canopy, limiting understory growth and shrub species. Pinegrass dominates herbaceous layer.
5199	150+	None	Douglas-fir and ninebark forest. Established over 150 years ago following a clearcut harvest or wildfire. Previously grazed, precommercially thinned, commercially thinned and prescribed burned in the past, but has had no recent management. Falling snags have created canopy gaps and understory tree regeneration occurs in clumps in these openings. Grass and shrub growth are also vigorous in the gaps. Pinegrass dominates herbaceous layer.

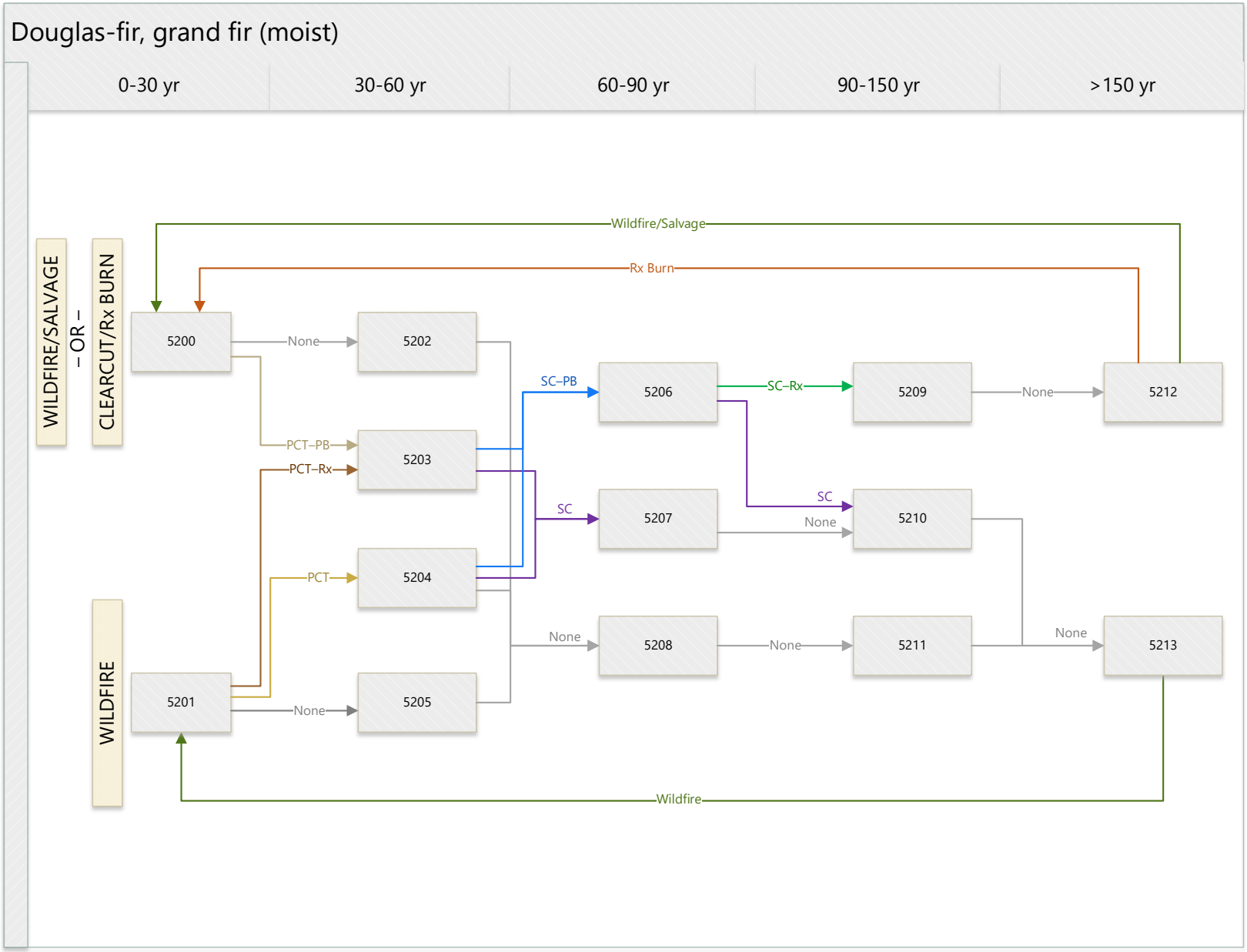

Douglas-fir, ninebark
0-15 yr
15-40 yr
40-80 yr
80-150 yr
>150 yr
WILDFIRE/SALVAGE
– OR –
CLEARCUT/Rx BURN
Clearcut/Rx Burn
Wildfire/Salvage
5191
PCT–PB–Graze
5192
PCT–PB–Graze
5193
SC/Rx
5196
None
5199
PCT
5194
SC
5197
None
5195
None
5198
Wildfire/Salvage
Clearcut/Rx Burn

Low to Moderate Elevation

Moist Site Pathways

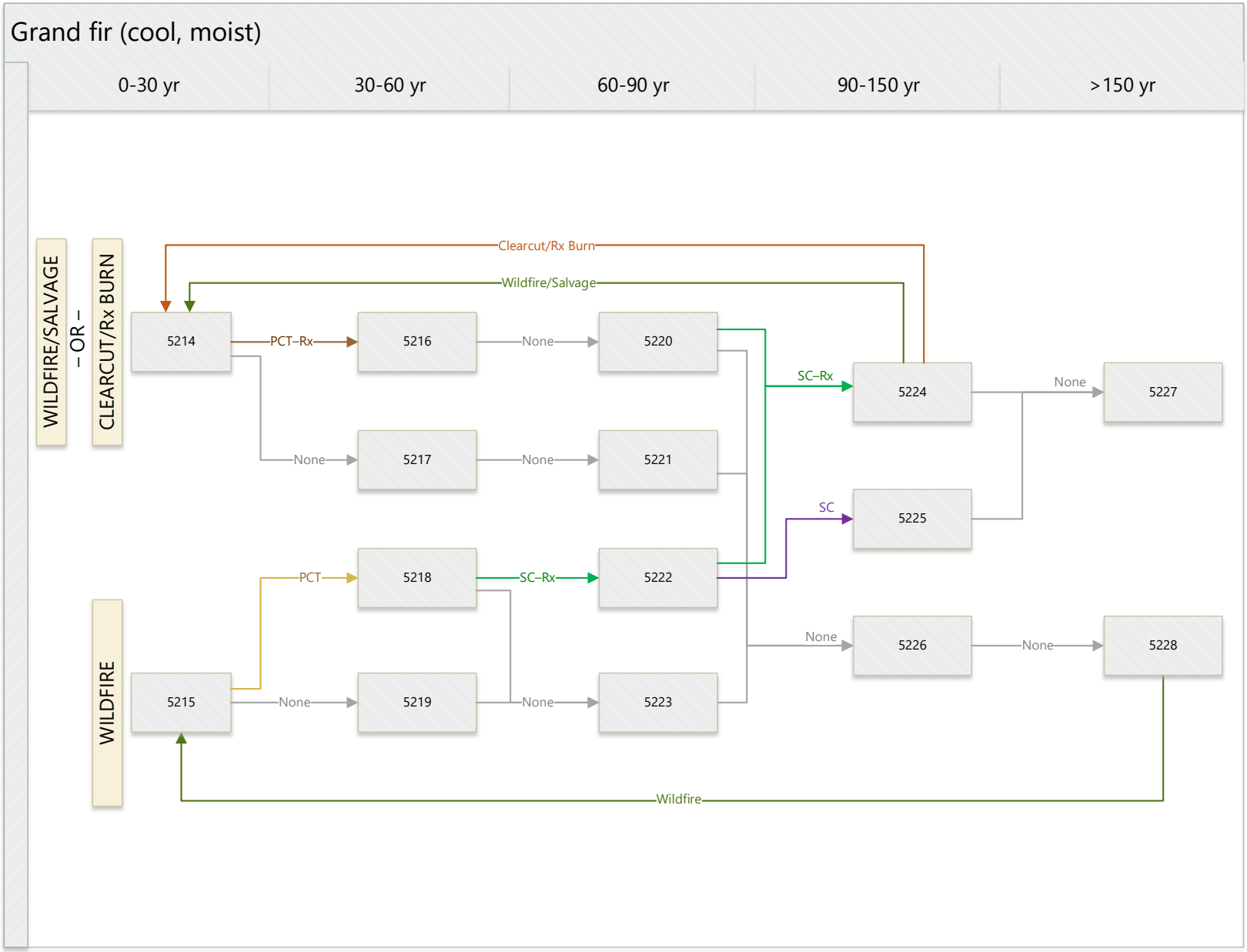
Douglas-fir, grand fir (moist)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5200	0-30	Clearcut and prescribed burn or wildfire and salvage harvest	Moist Douglas-fir and grand fir forest. Established less than 30 years ago from wildfire and salvage logging or a clearcut harvest and prescribed burn.
5201	0-30	Wildfire	Moist Douglas-fir and grand fir forest. Established less than 30 years ago after wildfire. Western hemlock and western larch may be present.
5202	30-60	None	Moist Douglas-fir and grand fir forest. Established 30 to 60 years ago after clearcutting and prescribed fire or wildfire and salvage logging with no subsequent management.
5203	30-60	Precommercial thin and pile burn	Moist Douglas-fir and grand fir forest. Established 30 to 60 years ago after wildfire and salvage logging or clearcutting and prescribed burning. Recently thinned and pile burned. Western hemlock and western larch may be present.
5204	30-60	Precommercial thin	Moist Douglas-fir and grand fir forest. Established 30 to 60 years ago from wildfire. Recent precommercial thin. Low-density. Western hemlock and western larch may be present.
5205	30-60	None	Moist Douglas-fir and grand fir forest. Established 30 to 60 years ago after wildfire. High-density with no management history. Western hemlock and western larch may be present.
5206	60-90	Selection cut and pile burn	Moist Douglas-fir and grand fir forest. Established 60-90 years ago by clearcut and burn or wildfire and salvage. Recent thin and prescribed burn. Western hemlock and western larch may be present.
5207	60-90	Selection cut	Moist Douglas-fir and grand fir forest. Established 60 to 90 years ago after clearcutting and prescribed burning or wildfire and salvage. Recent thin. Western hemlock and western larch may be present.
5208	60-90	None	Moist Douglas-fir and grand fir forest. Established 60 to 90 ago from wildfire with no subsequent management. Western hemlock and western larch may be present.
5209	90-150	Selection cut and prescribed burn	Moist Douglas-fir and grand fir forest. Established 90 to 150 years ago from a clearcut or wildfire. Recent thin and prescribed burn. Western hemlock and western larch may be present.
5210	90-150	Selection cut	Moist Douglas-fir and grand fir forest. Established 90 to 150 years ago from wildfire. Recent thin. Western hemlock and western larch may be present.
5211	90-150	None	Moist Douglas-fir and grand fir forest. Established 90 to 150 years ago from wildfire or clearcut cut and prescribed burn and had no subsequent management. Dense, multi-layered stand with high fuel load. Western hemlock and western larch may be present.
5212	150+	None	Moist Douglas-fir and grand fir forest. Established over 150 years ago from wildfire and salvage logging or clearcut and prescribed fire. Past thinning with no recent management. Medium-density, multi-layered stand.
5213	150+	None	Moist Douglas fir and grand fir forest. Established over 150 years ago following wildfire. Past thinning but has had no recent management. Western hemlock and western larch may be present. High-density.


Douglas-fir, grand fir (moist)
0-30 yr
30-60 yr
60-90 yr
90-150 yr
>150 yr
WILDFIRE/SALVAGE
– OR –
CLEARCUT/Rx BURN
WILDFIRE
Wildfire/Salvage
Rx Burn
5200
5201
5202
5203
5204
5205
5206
5207
5208
5209
5210
5211
5212
5213
None
PCT–PB
PCT–Rx
PCT
SC–PB
SC
SC–Rx
Wildfire

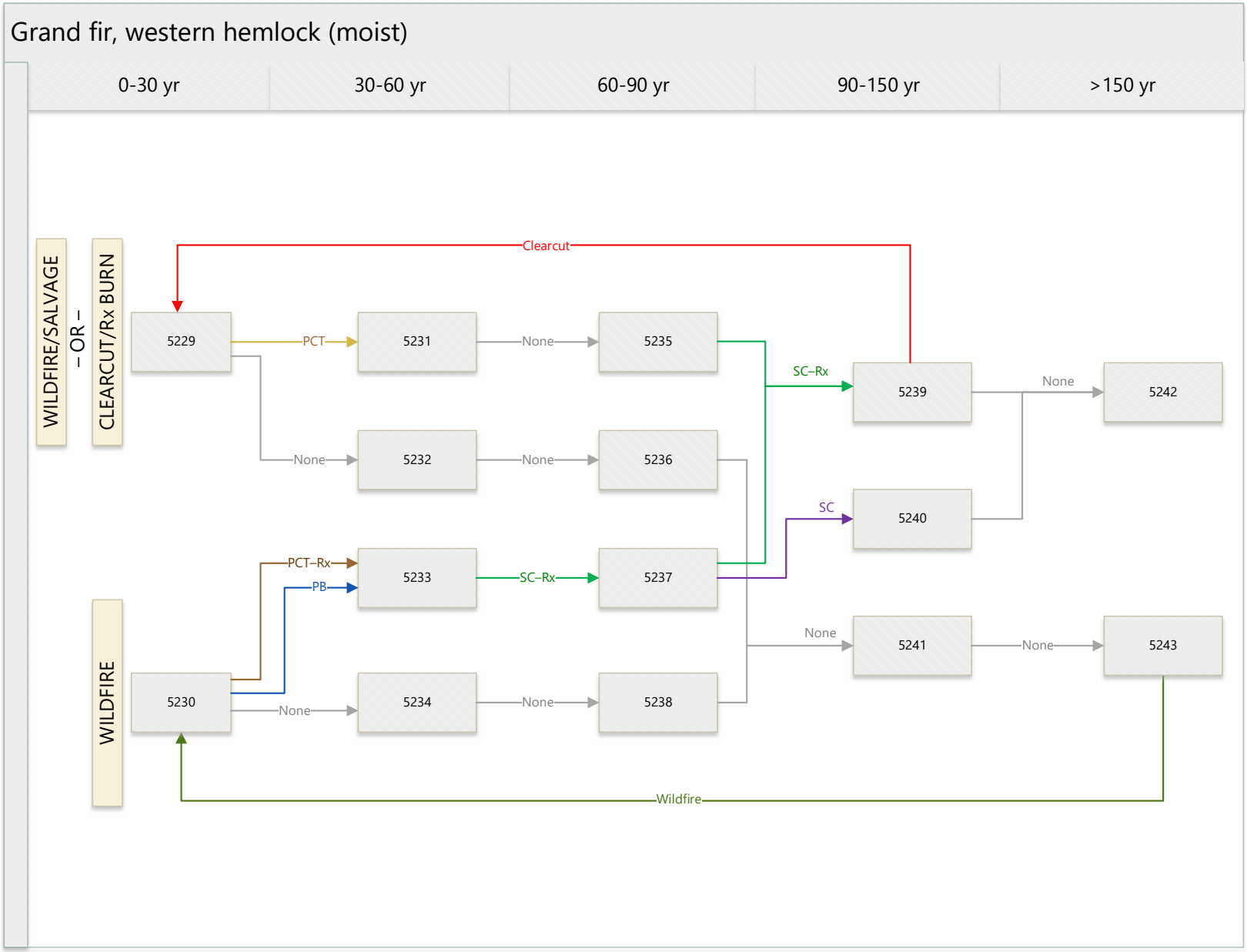
Grand fir (cool, moist)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5214	0-30	Clearcut or salvage cut and prescribed burn or wildfire	Cool, moist grand fir forest. Established less than 30 years ago after either clearcut and prescribed burning, or wildfire and salvage logging.
5215	0-30	Wildfire	Cool, moist grand fir forest. Established less than 30 years ago after wildfire. Medium-density.
5216	30-60	Precommercial thin and either pile burn or prescribed burn	Cool, moist grand fir forest. Established 30 to 60 years ago after wildfire and salvage logging or clearcut harvest and prescribed burning. Recent precommercial thin and prescribed burn.
5217	30-60	None	Cool, moist grand fir forest. Established 30 to 60 years ago after wildfire and salvage logging or clearcut harvest and prescribed burning with no subsequent management.
5218	30-60	Precommercial thin	Cool, moist grand fir forest. Established 30 to 60 years ago following wildfire. Recent precommercial thin resulting in a medium-density stand and medium fuel load.
5219	30-60	None	Cool, moist grand fir forest. Established 30 to 60 years ago following wildfire with no subsequent management.
5220	60-90	None	Cool, moist grand fir forest. Established 60 to 90 years ago following wildfire or clearcut. Past precommercial thinned with no subsequent management.
5221	60-90	None	Cool, moist grand fir forest. Established after wildfire or clearcut harvest 60 to 90 years ago and with no active management.
5222	60-90	Selection cut and prescribed burn	Cool, moist grand fir forest. Established 60 to 90 years ago after wildfire. Recent thin and prescribed burn.
5223	60-90	None	Cool, moist grand fir forest. Established 60 to 90 years ago after wildfire with no active management.
5224	90-150	Selection cut and prescribed burn	Cool, moist grand fir forest. Established 90 to 150 years ago. Recent thin and prescribed burn.
5225	90-150	Selection cut	Cool, moist grand fir forest. Established 90 to 150 years ago. Recent thin.
5226	90-150	None	Cool, moist grand fir forest. Established 90 to 150 years ago after wildfire or clearcut harvest with no subsequent management. Single layer canopy.
5227	150+	None	Cool, moist grand fir forest. Established over 150 years ago after wildfire or clearcut harvest. Past thinning with no recent management.
5228	150+	None	Cool, moist grand fir forest. Established over 150 years old after wildfire or clearcut harvest with no subsequent management.


Grand fir (cool, moist)
0-30 yr
30-60 yr
60-90 yr
90-150 yr
>150 yr
WILDFIRE/SALVAGE
– OR –
CLEARCUT/Rx BURN
WILDFIRE
Clearcut/Rx Burn
Wildfire/Salvage
5214
PCT–Rx
5216
None
5220
None
5217
None
5221
SC–Rx
5224
None
5227
SC
5225
PCT
5218
SC–Rx
5222
None
5226
None
5228
5215
None
5219
None
5223
Wildfire

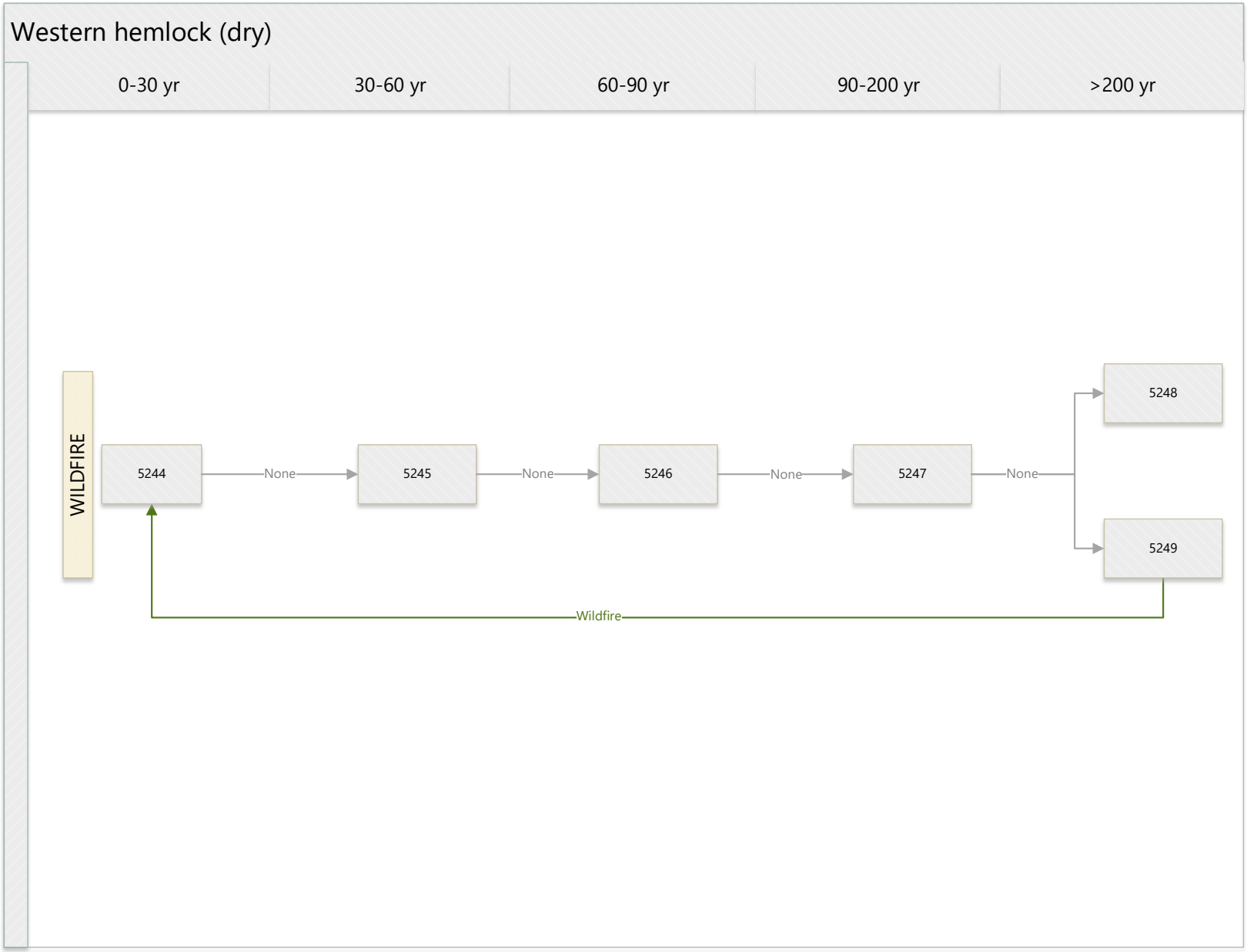
Grand fir, western hemlock (moist)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5229	0-30	Clearcut and prescribed burn or wildfire and salvage harvest	Moist grand fir and western hemlock forest. Established less than 30 years ago after either clearcut and prescribed burning, or wildfire and salvage logging.
5230	0-30	Wildfire	Moist grand fir and western hemlock forest. Established less than 30 years ago after wildfire. Medium-density.
5231	30-60	Precommercial thin	Moist grand fir and western hemlock forest. Established 30 to 60 years ago. Recent precommercial thin and prescribed burn.
5232	30-60	None	Moist grand fir and western hemlock forest. Established 30 to 60 years ago with no subsequent management.
5233	30-60	Precommercial thin and either pile burn or prescribed burn	Moist grand fir and western hemlock forest. Established 30 to 60 years ago following wildfire. Recent precommercial thin followed by either pile burn or prescribed burn. Medium-density stand with medium fuel load.
5234	30-60	None	Moist grand fir and western hemlock forest. Established 30 to 60 years ago following wildfire with no active management.
5235	60-90	None	Moist grand fir and western hemlock forest. Established after wildfire or clearcut harvest 60 to 90 years ago with subsequent precommercial thinning and no recent active management.
5236	60-90	None	Moist grand fir and western hemlock forest. Established after wildfire or clearcut harvest 60 to 90 years ago and with no active management.
5237	60-90	Selection cut and prescribed burn	Moist grand fir and western hemlock forest. Established 60 to 90 years ago after wildfire. Recent thin and prescribed burn.
5238	60-90	None	Moist grand fir and western hemlock forest. Established 60 to 90 years ago after wildfire with no active management.
5239	90-150	Selection cut and prescribed burn	Moist grand fir and western hemlock forest. Established 90 to 150 years ago. Recent thin and prescribed burn.
5240	90-150	Selection cut	Moist grand fir and western hemlock forest. Established 90 to 150 years ago. Recent thin.
5241	90-150	None	Moist grand fir and western hemlock forest. Established 90 to 150 years ago with no active management. Single layer canopy.
5242	150+	None	Moist grand fir and western hemlock forest. Established over 150 years ago. Past thin and prescribed burn but with no recent management.
5243	150+	None	Moist grand fir and western hemlock forest. Established over 150 years old with no active management. High-density.


Grand fir, western hemlock (moist)
0-30 yr
30-60 yr
60-90 yr
90-150 yr
>150 yr
WILDFIRE/SALVAGE
– OR –
CLEARCUT/Rx BURN
WILDFIRE
Clearcut
5229
PCT
5231
None
5235
None
5232
None
5236
SC–Rx
5239
None
5242
SC
5240
PCT–Rx
PB
5233
SC–Rx
5237
None
5241
None
5243
5230
None
5234
None
5238
Wildfire

Western hemlock (dry)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5244	0-30	Wildfire	Dry western hemlock forest. Established 30 years ago following wildfire. Codominant species may include Douglas-fir, lodgepole pine, western white pine, subalpine fir, western larch and ponderosa pine. Located on rocky or severely degraded sites. Medium-density with medium fuel load.
5245	30-60	None	Dry western hemlock forest. Established 30 to 60 years ago with no active management. Codominant species may include Douglas-fir, lodgepole pine, western white pine, subalpine fir, western larch and ponderosa pine. Located on rocky or severely degraded sites with low moisture. High-density stand with high fuel load.
5246	60-90	None	Dry western hemlock forest. Established 60 to 90 years ago following wildfire with no subsequent management. Codominant species may include Douglas-fir, lodgepole pine, western white pine, subalpine fir, western larch and an occasional ponderosa pine. Located on rocky or severely degraded sites with low moisture. High-density, multi-layered stand with medium fuel load.
5247	90-200	None	Dry western hemlock forest. Established 90 to 200 years ago. Codominant species may include Douglas-fir, lodgepole pine, western white pine, subalpine fir, western larch and an occasional ponderosa pine. Located on rocky or severely degraded sites with low moisture. Multilayered stand with no history of management.
5248	200+	None	Dry western hemlock forest. Established over 200 years ago. Located on rocky or severely degraded sites with low moisture. Multi-layered, medium-density stand with no history of management. Co-dominant species may include Douglas-fir, lodgepole pine, western white pine, subalpine fir, western larch and ponderosa pine.
5249	200+	None	Dry western hemlock forest. Established over 200 years ago. Located on rocky or severely degraded sites with low moisture. Multi-layered, high-density stand with no history of management. Codominant species may include Douglas-fir, lodgepole pine, western white pine, subalpine fir, western larch and ponderosa pine.

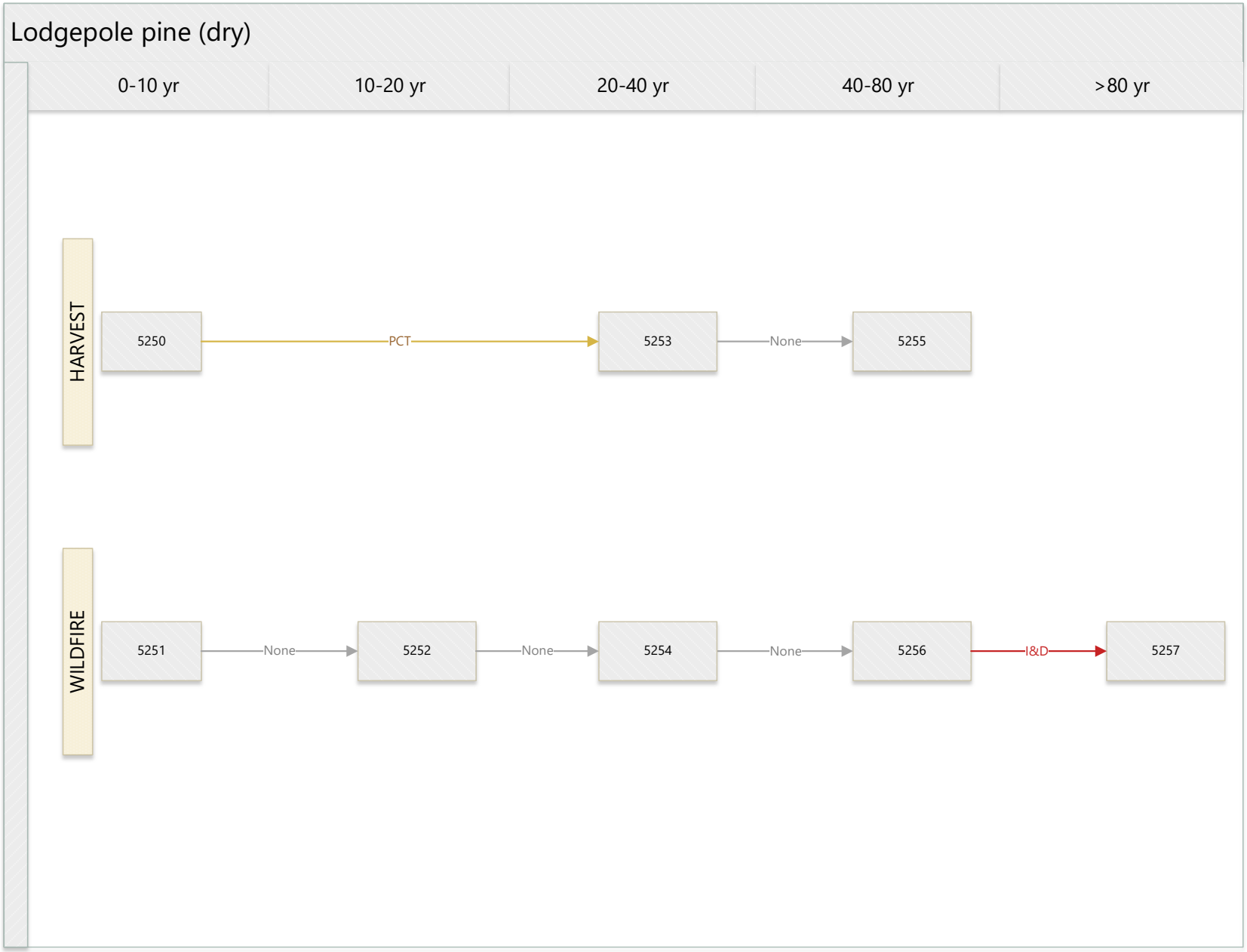

Western hemlock (dry)
0-30 yr
30-60 yr
60-90 yr
90-200 yr
>200 yr
WILDFIRE
5244
None
5245
None
5246
None
5247
None
5248
5249
Wildfire

Montane Forest

Pathways

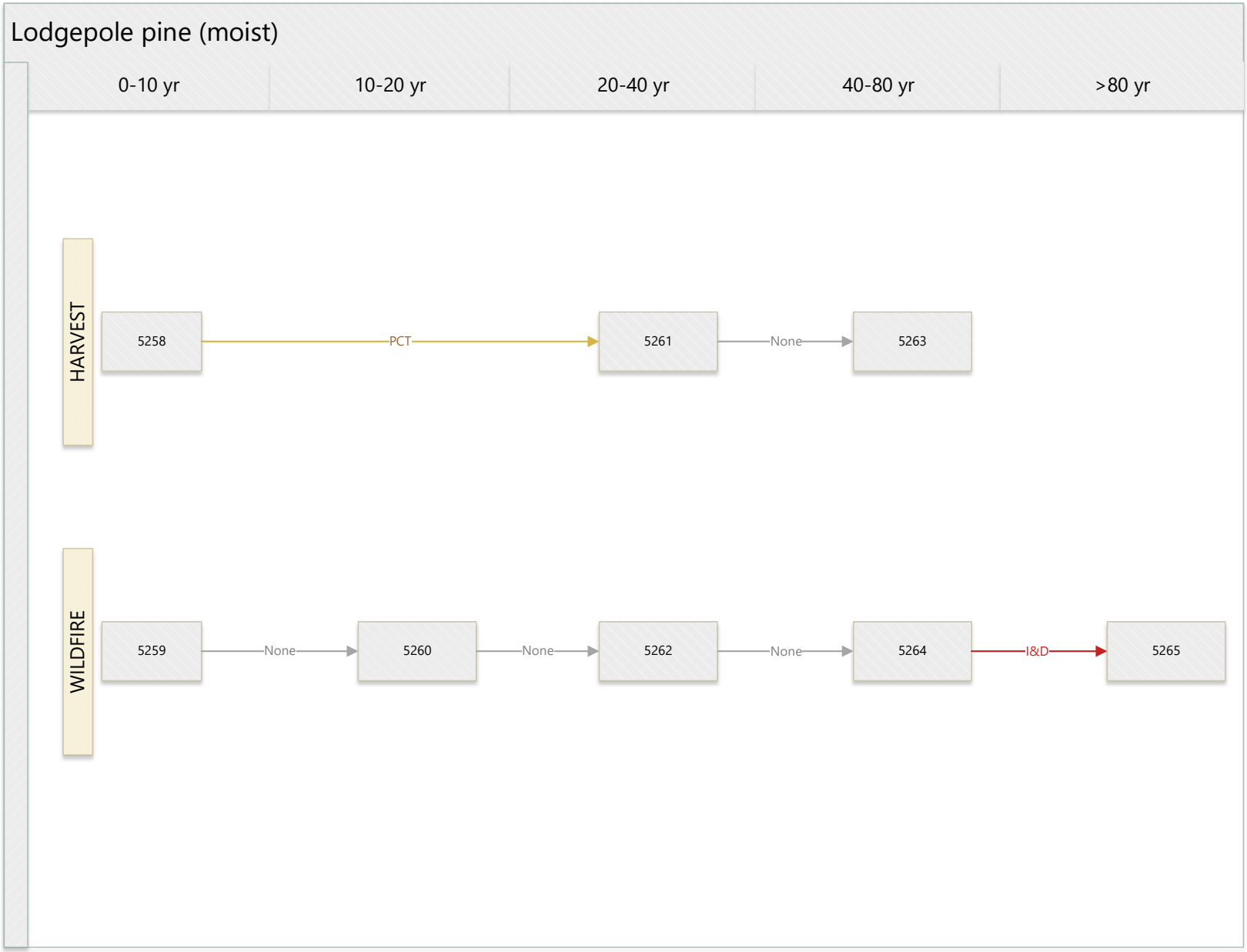
Lodgepole pine (dry)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5250	0-10	Clearcut and prescribed burn	Lodgepole pine montane forest. Established less than 10 years ago after clearcut harvest and prescribed burn.
5251	0-10	Wildfire	Lodgepole pine montane forest. Established approximately 10 years ago after stand-replacing wildfire.
5252	10-20	None	Lodgepole pine montane forest. Established 10 to 20 years ago following stand-replacing wildfire with no active management.
5253	20-40	Precommercial thin	Lodgepole pine montane forest. Established 20 to 40 years ago after a clearcut harvest and prescribed fire to reduce woody fuels. Recent precommercial thin.
5254	20-40	None	Lodgepole pine montane forest. Established after a stand-replacing fire 20 to 40 years ago with no subsequent management.
5255	40-80	None	Lodgepole pine montane forest. Established after a clearcut and prescribed fire 40 to 80 years ago. Precommercially thinned at 10-20 years ago but with no subsequent management.
5256	40-80	None	Lodgepole pine montane forest. Established 40 to 80 years ago after wildfire with no active management. High-density.
5257	80+	Insect and disease outbreak	Lodgepole pine montane forest. Established over 80 years ago after a clearcut and prescribed fire. Attacked by mountain pine beetles 10 years ago. Few needles remain, and fallen snags are accumulating (decay classes 2 and 3).


Lodgepole pine (dry)
0-10 yr
10-20 yr
20-40 yr
40-80 yr
>80 yr
HARVEST
5250
PCT
5253
None
5255
WILDFIRE
5251
None
5252
None
5254
None
5256
I&D
5257

Lodgepole pine (moist)

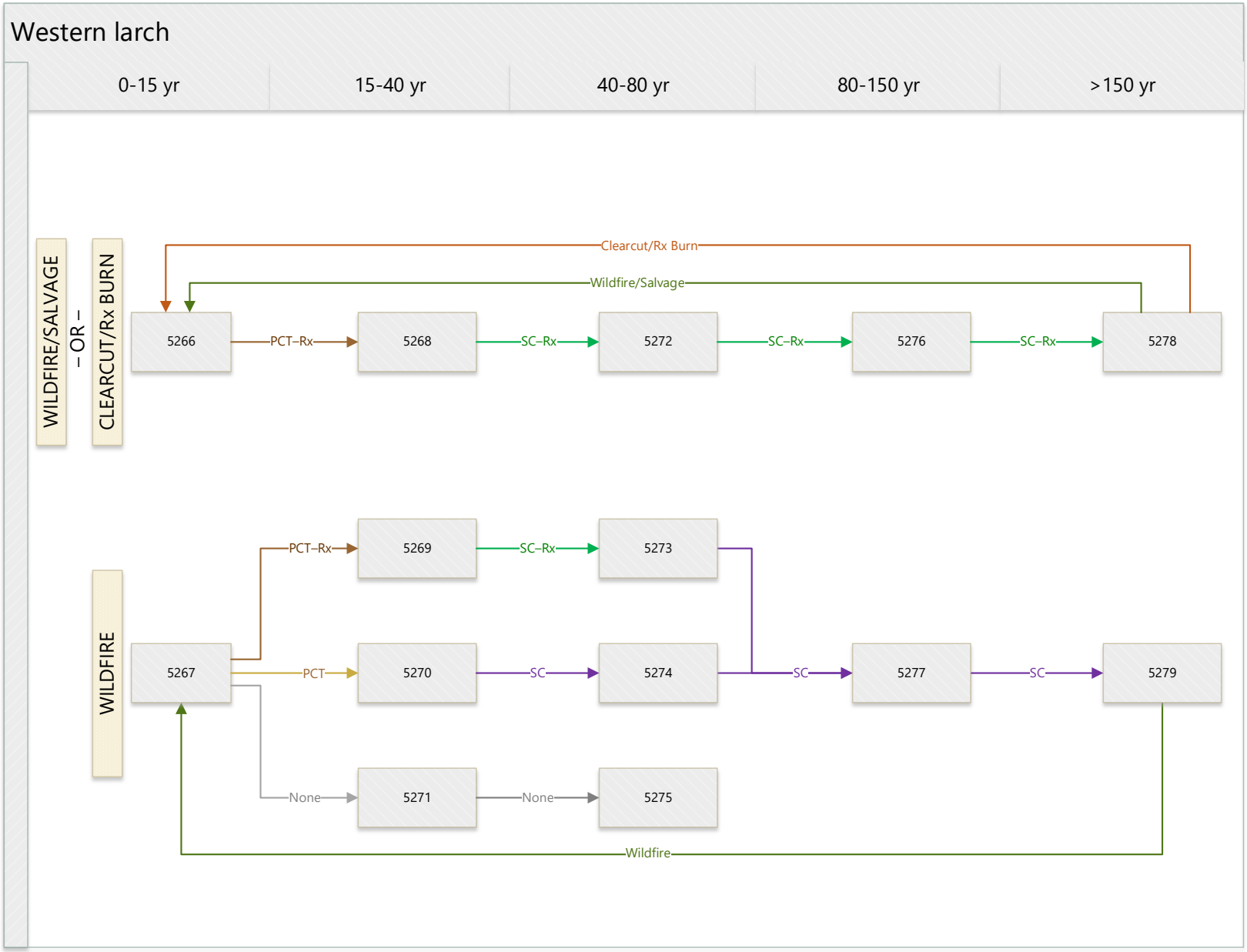
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5258	0-10	Clearcut and prescribed burn	Moist lodgepole pine forest. Located at all elevations in the southern Cascades and Sierra Nevada. Established less than 10 years ago following clearcut harvest and prescribed burn.
5259	0-10	Wildfire	Moist lodgepole pine forest. Located at all elevations in the southern Cascades and Sierra Nevada. Established less than 10 years ago following stand-replacement wildfire with no subsequent management.
5260	10-20	None	Moist lodgepole pine forest. Located at all elevations in the southern Cascades and Sierra Nevada. Established 10 to 20 years ago following a stand-replacement wildfire with no subsequent management.
5261	20-40	None	Moist lodgepole pine forest. Located at all elevations in the southern Cascades and Sierra Nevada. Established 20 to 40 years ago following a stand-replacing wildfire with no subsequent management.
5262	20-40	Precommercial thin	Moist lodgepole pine forest. Located at all elevations in the southern Cascades and Sierra Nevada. Established 20 to 40 years ago following a clearcut harvest and prescribed burn. Recent precommercial thin.
5263	40-80	None	Moist lodgepole pine forest. Located at all elevations in the southern Cascades and Sierra Nevada. Established 40 to 80 years ago following clearcut harvest. Past precommercial thin but no recent management.
5264	40-80	None	Moist lodgepole pine forest. Located at all elevations in the southern Cascades and Sierra Nevada. Established 40 to 80 years ago following stand-replacement wildfire and has had no subsequent management. High-density.
5265	80+	Insect and disease outbreak	Moist lodgepole pine forest. Located at all elevations in the southern Cascades and Sierra Nevada. Established over 80 years ago following stand-replacement wildfire and has had no subsequent management. Stand attacked by pine bark beetles in the last 10 years. Many standing snags are present and are beginning to fall, adding to woody fuel accumulations.


Lodgepole pine (moist)
0-10 yr
10-20 yr
20-40 yr
40-80 yr
>80 yr
HARVEST
5258
PCT
5261
None
5263
WILDFIRE
5259
None
5260
None
5262
None
5264
I&D
5265

Western larch

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5266	0-15	Clearcut and prescribed burn or wildfire and salvage harvest	Western larch forest. Established less than 15 years ago by wildfire with subsequent salvage logging, or clearcut harvest and prescribed fire. Planted or selectively managed to favor western larch.
5267	0-15	Wildfire	Western larch forest. Established less than 15 years ago by wildfire with no postfire salvage. Planted or selectively managed to favor western larch.
5268	15-40	Precommercial thin and prescribed burn	Western larch forest. Established 15 to 40 years ago by wildfire with salvage logging. Recent precommercial thin and prescribed burn to reduce stand density and favor western larch.
5269	15-40	Precommercial thin and prescribed burn	Western larch forest. Established 15 to 40 years ago by wildfire. Recent precommercial thin, favoring western larch, and prescribed burn. Snags created by wildfire are beginning to fall and contribute to coarse woody debris accumulations.
5270	15-40	Precommercial thin	Western larch forest. Established 15 to 40 years ago by wildfire. Recent precommercial thin to favor western larch. Snags created by wildfire are beginning to fall and contribute to coarse woody debris along with logging slash.
5271	15-40	None	Western larch forest. Established 15 to 40 years ago following wildfire with no history of management. High-density, pole-sized mixed conifers with a sparse, grassy understory. Snags created by wildfire are falling, resulting in high woody fuel loads.
5272	40-80	Selection cut and prescribed burn	Western larch forest. Established 40 to 80 years ago from wildfire and salvage logging or clearcut and prescribed burning. Past precommercial thin and prescribed burn. Recent commercial thin, favoring western larch, and prescribed burn.
5273	40-80	Selection cut and prescribed burn	Western larch forest. Established 40 to 80 years ago after wildfire. Past precommercial thin and prescribed burn to favor larch. Recent thin and prescribed burn.
5274	40-80	Selection cut	Western larch forest. Established 40 to 80 years ago after wildfire with no salvage logging. Recent thin.
5275	40-80	None	Western larch forest. Established 40 to 80 years ago after wildfire with no subsequent management.
5276	80-150	Selection cut and prescribed burn	Western larch forest. Occurs at middle to high elevations of the Cascade Range. Established 80 to 150 years ago. Stand has a history of active management and was recently selectively cut and treated with prescribed fire to reduce stand density and favor western larch.
5277	80-150	Selection cut	Western larch forest. Occurs at middle to high elevations in the eastern Cascade Range. Established 80 to 150 years ago. Subsequent precommercial thinning and selection cuts reduced stand density and removed competing conifers, maintaining a stand of pure larch. Recent thin with no fuel reduction treatment resulted in a low-density forest with high woody debris loading.
5278	150+	Selection cut and prescribed burn	Western larch forest. Occurs at middle to high elevations of the eastern Cascade Range. Established over 150 years ago. Stand had subsequent precommercial thinning and two selection cuts with fuel treatments reduced stand density. Recent thin and prescribed burn. Open park-like stand of western larch.

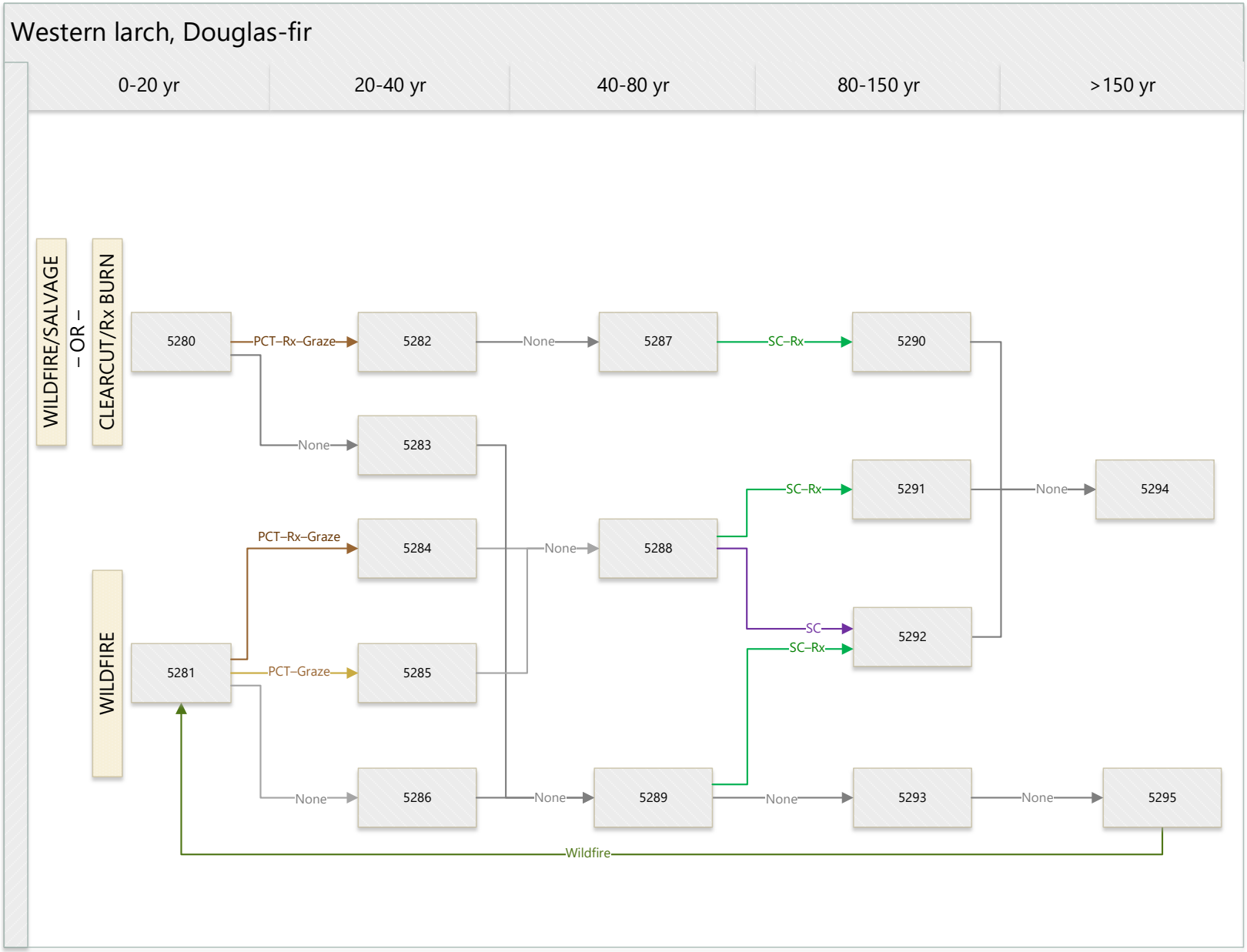
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5279	150+	Selection cut	Western larch forest. Occurs at middle to high elevations in eastern Cascade Range. Established more than 150 years ago. Past precommercial thin and 2 selection cuts with no woody fuel treatments. Recent thin reduced stand density, removed competing conifers, and resulted in an open stand of western larch with moderate woody fuel loading and duff layer.


Western larch
0-15 yr
15-40 yr
40-80 yr
80-150 yr
>150 yr
WILDFIRE/SALVAGE
– OR –
CLEARCUT/Rx BURN
Clearcut/Rx Burn
Wildfire/Salvage
5266
PCT–Rx
5268
SC–Rx
5272
SC–Rx
5276
SC–Rx
5278
WILDFIRE
PCT–Rx
5269
SC–Rx
5273
5267
PCT
5270
SC
5274
SC
5277
SC
5279
None
5271
None
5275
Wildfire

Western larch, Douglas-fir

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5280	0-20	Clearcut and prescribed burn or wildfire and salvage harvest	Dry western larch and Douglas-fir forest. Occurs east of the Cascade Range. Established less than 20 years ago following wildfire and salvage logging or clearcutting and prescribed burning. Dense larch and Douglas-fir seedlings and saplings. Snags and overstory are limited. Shrub growth has been stimulated. Woody fuel loadings are light and natural as snags fall and decay.
5281	0-20	Wildfire	Dry western larch and Douglas-fir forest. Occurs in the eastern Cascade Range. Established less than 20 years ago following wildfire. Dense larch and Douglas-fir seedlings and saplings. Shrub growth has been stimulated. Larch needles make up the litter layer. Woody fuel loadings are light and natural as snags fall and decay.
5282	20-40	Precommercial thin and prescribed burn and grazing	Dry western larch and Douglas-fir forest. Occurs east of the Cascade Range. Established 20 to 40 years ago. Recent precommercial thinning, favoring larch, and prescribed burning resulted in larch dominating the midstory. Stand has also been grazed. Brush, grass, and larch needles contribute to the litter layer. Moderate woody fuel loadings.
5283	20-40	None	Dry western larch and Douglas-fir forest. Occurs east of the Cascade Range. Established 20 to 40 ago from wildfire and salvage logging or clearcutting and prescribed burning. Larch and Douglas-fir seedlings and saplings are flourishing. Stem exclusion in the midstory is occurring due to high stand density. Shrub growth has been stimulated. Grass and larch needles make up the litter layer. Light fuel loadings.
5284	20-40	Precommercial thin and prescribed burn and grazing	Dry western larch and Douglas-fir forest. Occurs east of the Cascade Range. Established 20 to 40 years ago after wildfire with recent precommercial thinning and prescribed burning favoring larch. Stand has also been grazed. Larch dominates the midstory. Shrubs, grass, and larch needles contribute to the litter layer. Moderate woody fuel loadings.
5285	20-40	Precommercial thin and grazing	Dry western larch and Douglas-fir forest. Occurs east of the Cascade Range. Established 20 to 40 years ago following wildfire. Recent precommercial thin to favor larch. Stand has also been grazed. Shrubs, grass, and larch needles contribute to the litter layer.
5286	20-40	None	Dry western larch and Douglas-fir forest. Occurs east of the Cascade Range. Established 20 to 40 years ago from wildfire. Dense larch and Douglas-fir seedlings and saplings. Stem exclusion in the midstory is occurring due to high stand density. Shrub growth has been stimulated. Grass and larch needles make up the litter layer. Fuel loadings are increasing as snags fall and decay.
5287	40-80	None	Dry western larch and Douglas-fir forest. Occurs in the eastern Cascade Range. Established 40 to 80 years ago from wildfire and salvage logging, or from clearcutting and prescribed burning. Precommercial thin favoring larch in the past with no recent management activities. Larch dominates the overstory, with Douglas-fir filling in the understory. Shrubs, grass, and larch needles contribute to the litter layer. Light fuel loadings.

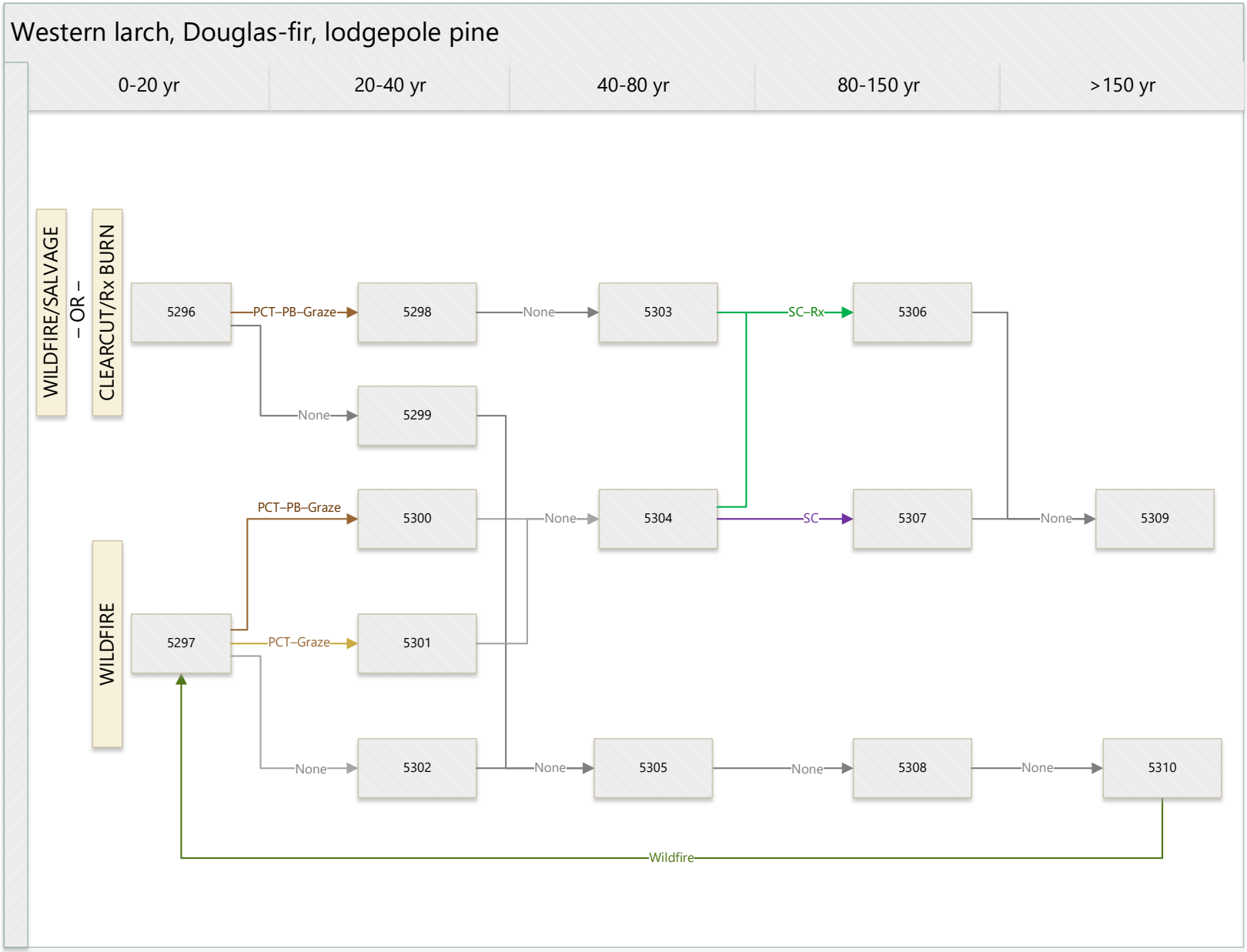
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5288	40-80	None	Dry western larch and Douglas-fir forest. Occurs east of the Cascade Range. Established 40 to 80 years ago after wildfire. Past precommercial thin favoring larch with no recent management activity. Larch dominates the overstory, and Douglas-fir is re-initiating in the understory. Brush, grass, and larch needles contribute to the litter layer. Woody fuel loadings are increasing as snags from wildfire fall.
5289	40-80	None	Dry western larch and Douglas-fir forest. Occurs in the eastern Cascade Range. Established 40 to 80 years ago after wildfire. Young multistory forest is dense with stunted growth. Snags are falling from the wildfire. The understory is composed of sparse shrubs and patchy grass.
5290	80-150	Selection cut and prescribed burn	Dry western larch and Douglas-fir forest. Occurs in the eastern Cascade Range. Established 80 to 150 years ago. Recent thin and prescribed burn. Larch dominates the overstory following the thinning, and Douglas-fir dominates the understory. Diameter and height growth are increased due to early release thinning. Shrubs, grass, and larch needles contribute to the litter layer. Fuel loadings are light and natural following prescribed fire treatment.
5291	80-150	Selection cut and prescribed burn	Dry western larch and Douglas-fir forest. Occurs in the eastern Cascade Range. Established 80 to 150 years ago. Recent thin and prescribed burn. Larch dominates the overstory, with Douglas-fir in the understory. Diameter and height growth are increased due to early release thinning. Shrubs, grass, and larch needles contribute to the litter layer.
5292	80-150	Selection cut and prescribed burn	Dry western larch and Douglas-fir forest. Occurs east of the Cascade Range. Established 80 to 150 years ago. Old, single layer forest with recent select tree harvest favoring larch followed by prescribed burn treatment of slash and ground fuels. Grass and brush growth have been stimulated.
5293	80-150	None	Dry western larch and Douglas-fir forest. Occurs in the eastern Cascade Range. Established 80 to 150 years ago. Single-layer doghair thicket with high-density, natural woody fuel loadings and stagnant growth. Dense canopy shades out most of the grass and shrub layers. Pole-size snags lean against dead branches.
5294	150+	None	Dry western larch and Douglas-fir forest. Occurs in the eastern Cascade Range. Established over 150 years ago. Stand had precommercial thin, favoring larch, and select tree harvest at maturity. Large diameter park-like stand with some understory reinitiation. Shrubs, grass, and larch needles contribute to the litter layer. Woody fuel loadings include some snags and accumulating branch debris.
5295	150+	None	Dry western larch and Douglas-fir forest. Occurs in the eastern Cascade Range. Established over 150 years ago with no subsequent management. Dense canopy shades out most of the grass and brush layer. Pole-size snags lean against dead branches. Diameter and height growth is stagnant. Heavy woody fuel accumulations.


Western larch, Douglas-fir
0-20 yr
20-40 yr
40-80 yr
80-150 yr
>150 yr
WILDFIRE/SALVAGE
– OR –
CLEARCUT/Rx BURN
WILDFIRE
5280
5281
5282
5283
5284
5285
5286
5287
5288
5289
5290
5291
5292
5293
5294
5295
PCT–Rx–Graze
PCT–Rx–Graze
PCT–Graze
None
None
None
None
None
None
None
None
SC–Rx
SC–Rx
SC
SC–Rx
None
None
Wildfire

Western larch, Douglas-fir, lodgepole pine

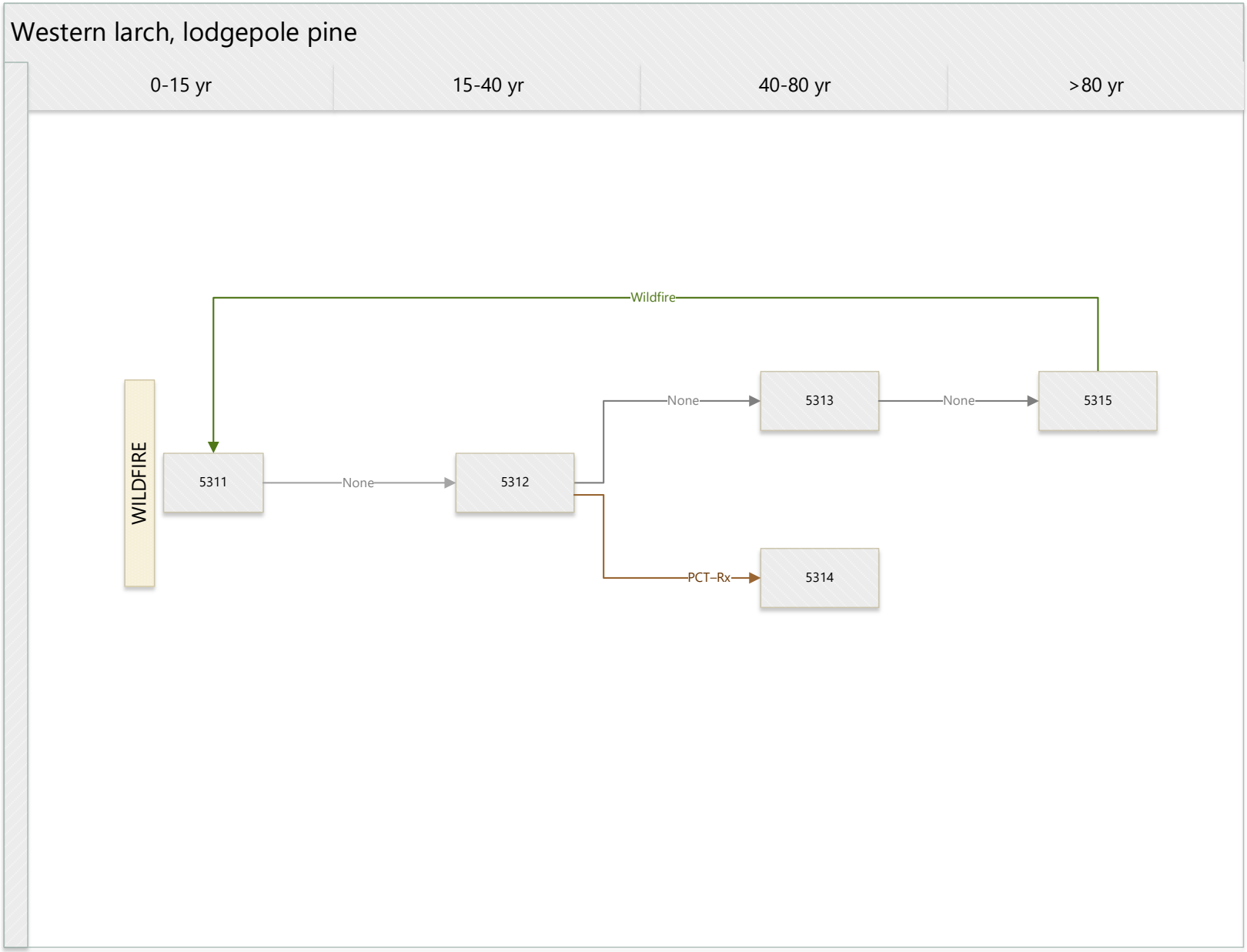
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5296	0-20	Clearcut and prescribed burn or wildfire and salvage harvest	Dry western larch, Douglas-fir, and lodgepole pine forest. Occurs at mid to upper elevations in the eastern Cascade Range. Seedlings and saplings regenerated less than 20 years ago after wildfire and salvage logging, or clearcut harvest and prescribed burning.
5297	0-20	Wildfire	Dry western larch, Douglas-fir, and lodgepole forest. Occurs at mid to upper elevations in the eastern Cascade Range. Seedlings and saplings regenerated after wildfire less than 20 years ago.
5298	20-40	Precommercial thin and pile burn and grazing	Dry western larch, Douglas-fir, and lodgepole pine stand. Occurs at mid to upper elevations in the eastern Cascade Range. Seedlings and saplings regenerating after wildfire with subsequent salvage logging 20 to 40 years ago. The stand had a precommercial thin with a pile and burn fuel treatment during stem exclusion phase. Stand has also been grazed.
5299	20-40	None	Dry western larch, Douglas-fir, and lodgepole forest. Occurs at mid and upper elevations in the eastern Cascade Range. Seedlings and saplings regenerated in an opening created 20 to 40 years ago by wildfire and salvage logging, or clearcut harvest with prescribed burning. No recent management activity. Grass and needle litter are diminishing.
5300	20-40	Precommercial thin and pile burn and grazing	Dry western larch, Douglas-fir, and lodgepole forest. Occurs at mid to upper elevations in the eastern Cascade Range. Seedlings and saplings regenerating after wildfire 20 to 40 years ago. The stand had a precommercial thin with a pile and burn fuel treatment during the stem exclusion stage. Stand has also been grazed. Grass and needle litter dominate the understory.
5301	20-40	Precommercial thin and grazing	Dry western larch, Douglas-fir, and lodgepole forest. Occurs at mid to upper elevations in the eastern Cascade Range. Seedlings and saplings regenerated in an opening created 20 to 40 years ago by wildfire. The stand was precommercially thinned in the stem exclusion stage. Stand has also been grazed. Grass and needle litter dominate the understory.
5302	20-40	None	Dry western larch, Douglas-fir, and lodgepole forest. Occurs at mid to upper elevations in the eastern Cascade Range. Seedlings and saplings regenerated in an opening created 20 to 40 years ago by wildfire. The stand is showing signs of overstocking in the stem exclusion stage. Grass and needle litter dominate the understory.
5303	40-80	None	Dry western larch, Douglas-fir, lodgepole pine forest. Occurs at mid to high elevations in the eastern Cascade Range. Established after wildfire 40 to 80 years ago. Stand was previously precommercially thinned and has had no recent management activity. Shaded understory is dominated by low brush and herbaceous species. Grass and needle cast are diminishing.
5304	40-80	None	Dry western larch, Douglas-fir, and lodgepole pine forest. Occurs at mid to high elevations in the eastern Cascade Range. Established 40 to 80 years ago after wildfire. Stand was thinned once, allowing for some height and diameter growth, but has had no recent management activity. The shaded understory is dominated by low shrubs and herbs. Grass and needle cast are diminishing.

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5305	40-80	None	Dry western larch, Douglas-fir, and lodgepole pine forest. Occurs at mid to high elevations in the eastern Cascade Range. Established after wildfire 40 to 80 years ago with no subsequent management. Forest has developed into a dense dog hair thicket with tight pole spacing and leaning snags on branches. The shaded understory is dominated by low brush and herbs. Grass and needle litter are diminishing.
5306	80-150	Selection cut and prescribed burn	Dry western larch, Douglas-fir, lodgepole pine forest. Occurs at mid to high elevations in the eastern Cascade Range. Established after wildfire 80 to 150 years ago. This stand has been thinned once, allowing for some height and diameter growth, and recently had select tree harvest followed by a prescribed burn. The open understory is dominated by low brush and herbaceous species.
5307	80-150	Selection cut	Dry western larch, Douglas-fir, lodgepole pine forest. Occurs at mid to high elevations east of the Cascade Range. Established after wildfire 80 to 150 years ago. This stand has been thinned once, allowing for some height and diameter growth, and had recent select tree harvest with no woody fuel treatment. The open understory is dominated by low brush and herbaceous species.
5308	80-150	None	Dry western larch, Douglas-fir, and lodgepole pine forest. Occurs at mid to high elevations east of the Cascade Range. Established after wildfire 80 to 150 years ago. This forest has developed into a dense dog hair thicket with tight pole spacing and leaning snags. Suppressed trees are beginning to fall, increasing fuel loads. Shaded understory is dominated by low brush and herbs. Grass and needle litter are diminishing.
5309	150+	None	Dry western larch, Douglas-fir, and lodgepole pine forest. Occurs at mid to high elevations east of the Cascade Range. Established after wildfire over 150 years ago. The stand has had several thinning treatments to create an open stand but no recent management activity. The open understory is dominated by low shrubs and herbs.
5310	150+	None	Dry western larch, Douglas-fir, and lodgepole pine forest. Occurs at mid to upper elevations east of the Cascade Range. Established after wildfire over 150 years ago with no history of active management. Stand has developed into a dense dog hair thicket with tight pole spacing and leaning snags. Suppressed trees and weakened lodgepole are falling, significantly increasing fuel loading. The shaded understory with heavy ground fuels has diminished shrub and grass growth.


Western larch, Douglas-fir, lodgepole pine
0-20 yr
20-40 yr
40-80 yr
80-150 yr
>150 yr
WILDFIRE/SALVAGE
– OR –
CLEARCUT/Rx BURN
WILDFIRE
5296
5297
5298
5299
5300
5301
5302
5303
5304
5305
5306
5307
5308
5309
5310
PCT–PB–Graze
PCT–Graze
None
SC–Rx
SC
Wildfire

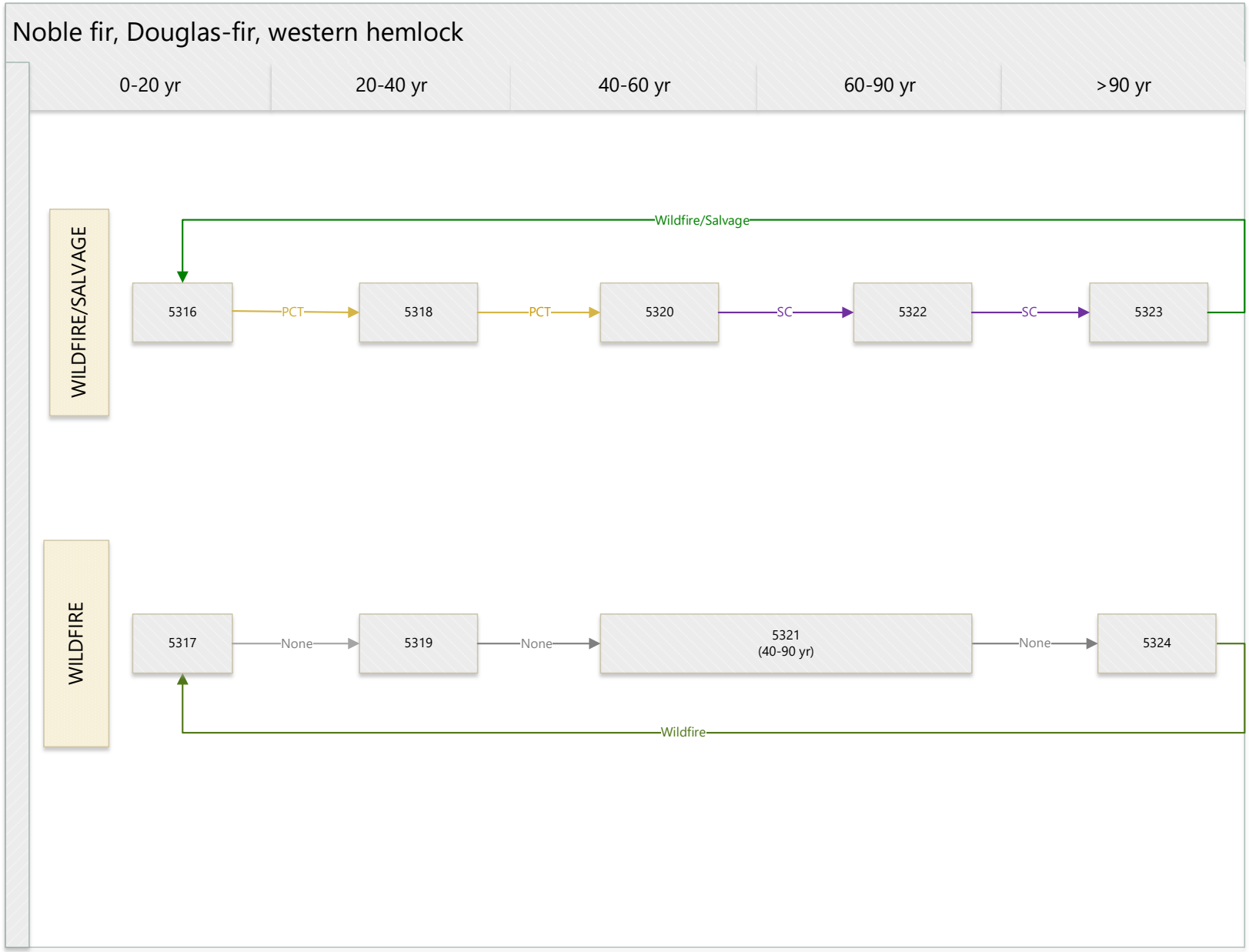
Western larch, lodgepole pine

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5311	0-15	Wildfire	Western larch and lodgepole pine forest. Occurs at mid to higher elevations east of the Cascade Range. Seedlings and saplings are regenerating in an opening created less than 15 years ago by wildfire.
5312	15-40	None	Western larch and lodgepole pine forest. Occurs at mid to high elevations east of the Cascade Range. Dense seedlings and saplings are regenerating following wildfire 15 to 40 years ago.
5313	40-80	None	Western larch and lodgepole pine forest. Occurs at mid to high elevations east of the Cascade Range. Dry seedlings and saplings have regenerated in an opening created 40 to 80 years ago by wildfire. No history of active management. Self-pruned branches and suppressed trees are starting to fall. The canopy is closed, creating a cool understory with limited grass and shrub growth.
5314	40-80	Precommercial thin and prescribed burn	Western larch and lodgepole pine forest. Occurs at mid to high elevations across the eastern Cascade Range. Established 40 to 80 years ago from wildfire and salvage logging or clearcut and prescribed burning. Stand was previously precommercially thinned and prescribed burned. Recent select tree harvest, favoring western larch, with prescribed burn woody fuel treatment.
5315	80+	None	Western larch and lodgepole pine forest. Occurs at mid to high elevations in the eastern Cascade Range. Dry seedlings and saplings regenerated in an opening created more than 80 years ago by wildfire. No history of active management. Self-pruned branches and fallen suppressed trees have increased fuel loading and the canopy is closed, creating a cool understory with limited grass growth. Shade-tolerant shrubs dominate the understory.


Western larch, lodgepole pine
0-15 yr
15-40 yr
40-80 yr
>80 yr
Wildfire
WILDFIRE
5311
None
5312
None
5313
None
5315
PCT–Rx
5314

Noble fir, Douglas-fir, western hemlock

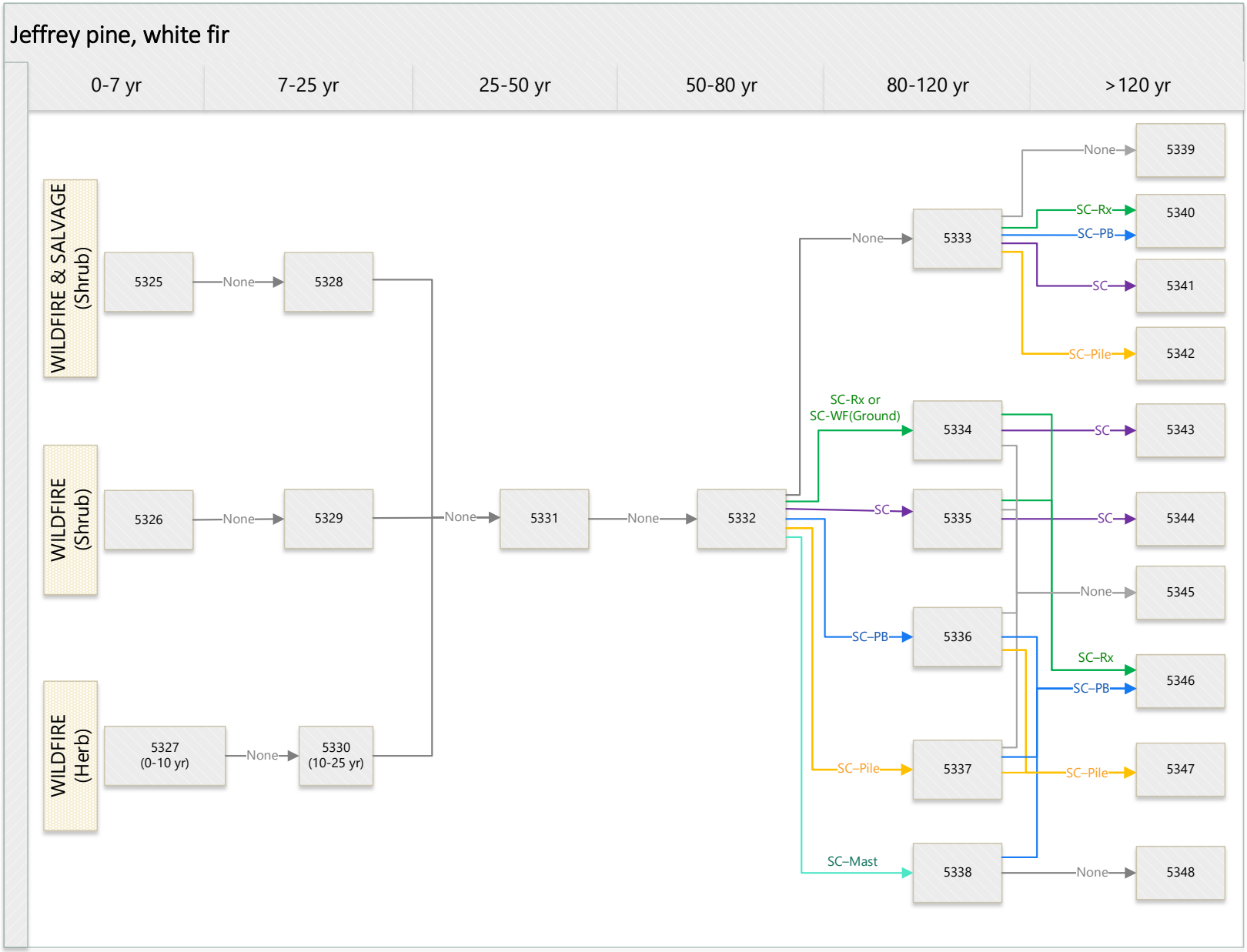
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5316	0-20	Wildfire and salvage harvest	Noble fir, Douglas-fir, and western hemlock forest. Occurs at mid to high elevations throughout much of the Cascade Range. Established less than 20 years ago following wildfire and salvage logging.
5317	0-20	Wildfire	Noble fir, Douglas-fir, and western hemlock forest. Occurs at mid to high elevations throughout much of the Cascade Range. Established less than 20 years ago following wildfire. The majority of snags are still standing.
5318	20-40	Precommercial thin	Noble fir, Douglas-fir, and western hemlock forest. Occurs at mid to high elevations throughout much of the Cascade Range. Established 20 to 40 years ago following wildfire and salvage logging. Recent precommercial thin.
5319	20-40	None	Noble fir, Douglas-fir, and western hemlock forest. Occurs at mid to high elevations throughout much of the Cascade Range. Established 20 to 40 years ago following wildfire with no subsequent management. Noble fir and Douglas-fir seedlings and saplings dominate the canopy and the majority of snags have fallen, contributing to woody fuel loads.
5320	40-60	Precommercial thin	Noble fir, Douglas-fir, and western hemlock forest. Occurs at mid to high elevations throughout much of the Cascade Range in Oregon and Washington. Established 40 to 60 years ago following wildfire and salvage logging. Recently precommercial thin.
5321	40-90	None	Noble fir, Douglas-fir, and western hemlock forest. Occurs at mid to high elevations throughout much of the Cascade Range in Oregon and Washington. Established 40 to 90 years ago following wildfire with no subsequent management. Noble fir seedlings and saplings dominate the canopy. Large woody fuels from the wildfire are decomposing.
5322	60-90	Selection cut	Noble fir, Douglas-fir, and western hemlock forest. Occurs at mid to high elevations throughout much of the Cascade range in Oregon and Washington. Established 60 to 90 years ago following wildfire and salvage logging. Recent thin.
5323	90+	Selection cut	Noble fir, Douglas-fir, and western hemlock forest. Occurs at mid to high elevations throughout much of the Cascade Range. Established over 90 years ago following wildfire and salvage logging. Recent thin.
5324	90+	None	Noble fir, Douglas-fir, and western hemlock forest. Occurs at mid to high elevations throughout much of the Cascade Range. Established over 90 years ago following wildfire with no subsequent management. Dominated by noble fir.


Noble fir, Douglas-fir, western hemlock
0-20 yr
20-40 yr
40-60 yr
60-90 yr
>90 yr
WILDFIRE/SALVAGE
Wildfire/Salvage
5316
PCT
5318
PCT
5320
SC
5322
SC
5323
WILDFIRE
5317
None
5319
None
5321
(40-90 yr)
None
5324
Wildfire

Jeffrey pine, white fir

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5325	0-7	Wildfire and salvage harvest	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established following stand-replacement wildfire and salvage harvest less than 7 years ago, resulting in a shrubland with few snags and less than 10% understory tree cover.
5326	0-7	Wildfire	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established following stand-replacement wildfire less than 7 years ago, resulting in a shrubland with snags and less than 10% live overstory tree cover.
5327	0-10	Wildfire	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established following stand-replacement wildfire less than 10 years ago, resulting in a grassland with snags and less than 10% live overstory tree cover.
5328	7-25	Wildfire and salvage harvest	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established following stand-replacement wildfire and salvage harvest 7 to 25 years ago with no subsequent management.
5329	7-25	Wildfire	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established following stand-replacement wildfire 7 to 25 years ago with no subsequent management.
5330	10-25	None	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established 10 to 25 years ago following stand-replacement wildfire with no subsequent management. Dense dry seedlings and saplings have become established.
5331	25-50	None	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established following stand-replacement wildfire 25 to 50 years ago with no subsequent management. High-density poles.
5332	50-80	None	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established 50 to 80 years ago with no subsequent management. Single layer, medium-density canopy and medium woody fuel load.
5333	80-120	None	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established 80 to 120 years ago with no subsequent management. High-density stand.
5334	80-120	Selection cut and either prescribed underburn or wildfire - ground fuels	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established 80 to 120 years ago. Recent thin and prescribed underburn.
5335	80-120	Selection cut	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established 80 to 120 years ago. Recent thin.
5336	80-120	Selection cut and pile burn	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established 80 to 120 years ago. Recent thin and pile burning.
5337	80-120	Selection cut and piling	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established 80 to 120 years ago. Recent thin and slash piling.

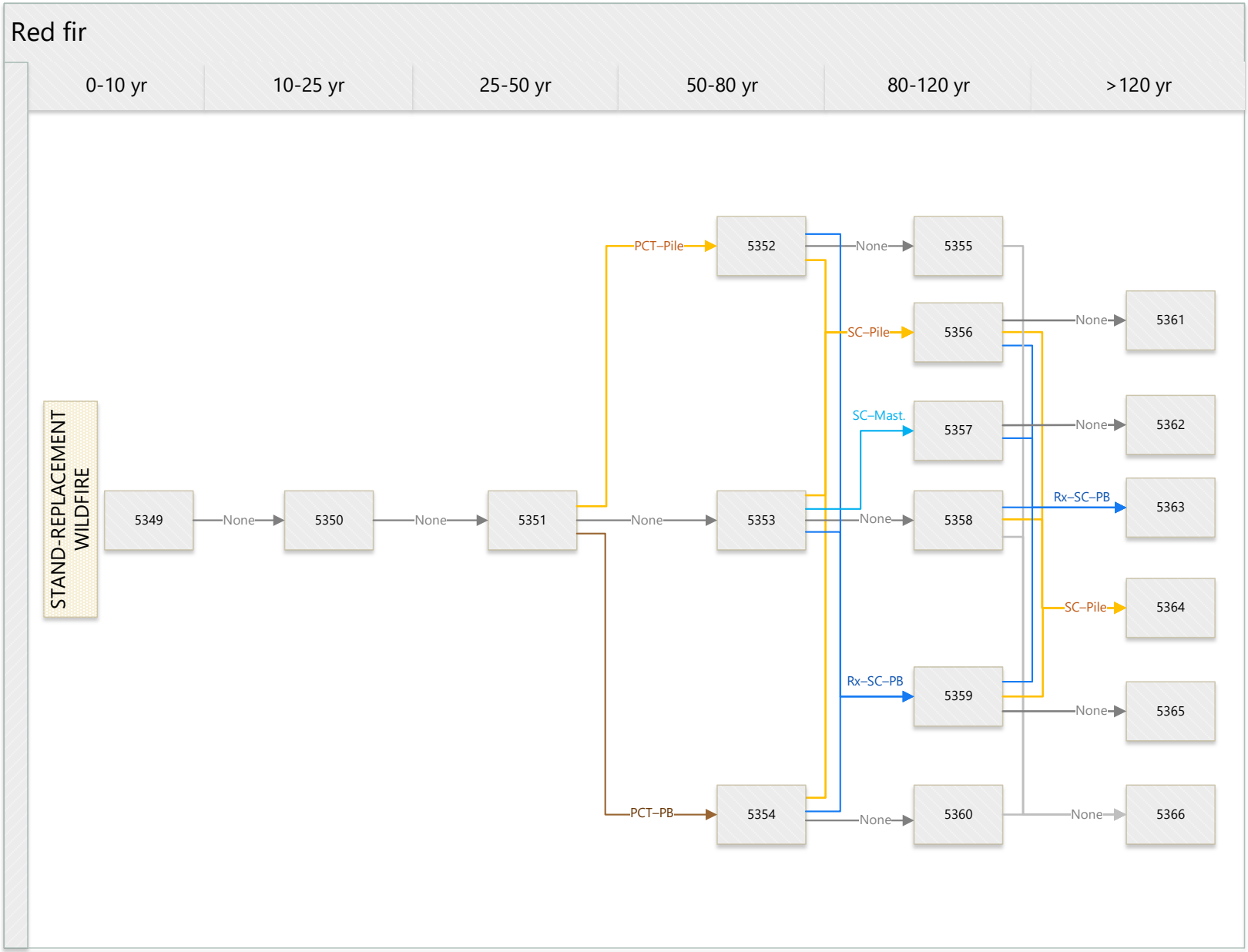
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5338	80-120	Selection cut and mastication	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established 80 to 120 years ago. Recent cut to length harvest with mastication of logging slash and small shrubs and trees.
5339	120+	None	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established more than 120 years ago with no subsequent management. High-density stand.
5340	120+	Selection cut and either pile burn or prescribed burn	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire. Recent thin and prescribed burn.
5341	120+	Selection cut	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established over 120 years ago. Recent thin.
5342	120+	Selection cut and piling	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established over 120 years ago. Recent thin and slash piling. Medium-density.
5343	120+	Selection cut	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established over 120 years ago. Recent thin.
5344	120+	Selection cut	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established over 120 years ago. Recent thin.
5345	120+	None	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established over 120 years ago. Past thin and prescribed burn but no subsequent management.
5346	120+	Selection cut and either pile burn or prescribed burn	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established more than 120 years ago. Recent thin and prescribed burn.
5347	120+	Selection cut and piling	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established over 120 years ago. Recent thin and slash piling. Low-density.
5348	120+	None	Jeffrey pine and white fir forest. Occurs at middle elevations in the south Cascades and Sierra Nevada. Established over 120 years ago. Past thin and mastication but no recent management.


Jeffrey pine, white fir
0-7 yr
7-25 yr
25-50 yr
50-80 yr
80-120 yr
>120 yr
WILDFIRE & SALVAGE (Shrub)
WILDFIRE (Shrub)
WILDFIRE (Herb)
5325
5326
5327 (0-10 yr)
5328
5329
5330 (10-25 yr)
5331
5332
5333
5334
5335
5336
5337
5338
5339
5340
5341
5342
5343
5344
5345
5346
5347
5348
None
SC–Rx
SC–PB
SC
SC–Pile
SC-Rx or SC-WF(Ground)
SC–Mast

Red fir

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5349	0-10	Wildfire	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established less than 10 years ago following stand-replacement wildfire with no salvage, resulting in a shrubland with snags and less than 10% cover of live overstory trees.
5350	10-25	None	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established 10 to 25 years ago following stand-replacement wildfire with no subsequent management. Seedlings and saplings have established at low-density and there is a minor component of defoliators but not significant enough to consider a change agent.
5351	25-50	None	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established 25 to 50 years ago following stand-replacement wildfire and has had no subsequent management.
5352	50-80	Precommercial thin and piling	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established 50 to 80 years ago. Recent precommercial thin and slash piling.
5353	50-80	None	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Dry red fir forest. Established 50 to 80 years ago with no subsequent management. There are defoliating insects present but not enough to consider a change agent.
5354	50-80	Precommercial thin and pile burn	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established 50 to 80 years ago. Recent precommercial thin and prescribed burn.
5355	80-120	None	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established 80 to 120 years ago. Past precommercial thin and slash piling but no recent management.
5356	80-120	Selection cut and piling	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established 80 to 120 years ago. Recent thin and slash piling.
5357	80-120	Selection cut and mastication	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established 80 to 120 years ago. Recent selection cut to length harvest with mastication of logging slash, shrubs and small trees.
5358	80-120	None	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established 80 to 120 years ago with no subsequent management.
5359	80-120	Prescribed burn (or wildfire - ground fuels), selection cut, and pile burn	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established 80 to 120 years ago. Stand may have had a precommercial thin during the years 25-50 and has had a recent low intensity wildfire or prescribed underburn followed by a select tree harvest with woody fuels piled and burned.
5360	80-120	None	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established 80 to 120 years ago. Past precommercial thin and pile burn but no recent management.

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5361	120+	None	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established over 120 years ago. Past thin and pile burning but no recent management. Some recent insect damage, but not significant enough to consider a change agent.
5362	120+	None	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established over 120 years ago. Past thinning and mastication but no recent management. Some recent insect damage, but not significant enough to consider a change agent.
5363	120+	Prescribed burn (or wildfire - ground fuels), selection cut, and pile burn	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established over 120 years ago. Dense canopy and medium woody fuel load. Recent prescribed underburn or low intensity wildfire followed by select tree harvest with woody fuels reduced by piling and burning.
5364	120+	Selection cut and piling	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established over 120 years ago. Recent thin and slash piling.
5365	120+	None	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established over 120 years ago. Past thin and pile burning but no recent management. Some insect damage, but not significant enough to consider a change agent.
5366	120+	None	Red fir forest. Occurs at middle elevations of the southern Cascades and Lake Tahoe Basin. Established over 120 years ago with no subsequent management. Stand has some insect damage.


Red fir
0-10 yr
10-25 yr
25-50 yr
50-80 yr
80-120 yr
>120 yr
STAND-REPLACEMENT WILDFIRE
5349
None
5350
None
5351
None
5353
PCT–Pile
5352
PCT–PB
5354
None
5355
SC–Pile
5356
SC–Mast.
5357
None
5358
Rx–SC–PB
5359
None
5360
None
5361
None
5362
Rx–SC–PB
5363
SC–Pile
5364
None
5365
None
5366

Mixed conifer (Sierra)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5367	0-7	Wildfire and salvage harvest	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established less than 7 years ago following stand-replacement wildfire and salvage harvest.
5368	0-7	Wildfire	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established less than 7 years ago following stand-replacement wildfire. Stand initiation with a shrub understory.
5369	0-10	Wildfire	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established less than 10 years ago following stand-replacement wildfire with no salvage harvest. Stand initiation with an herbaceous understory.
5370	7-25	None	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 7 to 25 years ago following stand-replacement wildfire with salvage harvest and no subsequent management. Stand initiation with a shrub understory.
5371	7-25	None	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 7 to 25 years ago following stand-replacement wildfire with no subsequent management.
5372	10-25	None	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 10 to 25 years ago following stand-replacement wildfire with no salvage harvest and no subsequent management.
5373	25-50	None	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 25 to 50 years ago following stand-replacement wildfire with no subsequent management. High-density sapling and pole-sized trees.
5374	50-80	None	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 50 to 80 years ago following stand-replacement wildfire with no subsequent management. Medium-density with moderate woody fuel loads.
5375	80-120	None	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 80 to 120 years ago following stand-replacement wildfire with no subsequent management. High-density stand.

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5376	80-120	Selection cut and either prescribed underburn or wildfire - ground fuels	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 80 to 120 years ago following stand-replacement wildfire with no salvage harvest. Recent thin and prescribed burn.
5377	80-120	Selection cut	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 80 to 120 years ago following stand-replacement wildfire. Recent thin.
5378	80-120	Selection cut and pile burn	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 80 to 120 years ago following stand-replacement wildfire. Recent thin and slash piling.
5379	80-120	Selection cut and piling	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 80 to 120 years ago following stand-replacement wildfire. Recent thin and slash piling.
5380	80-120	Selection cut and mastication	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established 80 to 120 years ago following stand-replacement wildfire. Recent selection cut to length harvest with mastication of logging slash, shrubs and small trees.
5381	120+	None	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire with no subsequent management. High-density.
5382	120+	Selection cut and either pile burn or prescribed burn	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire. Recent thin and prescribed burn.
5383	120+	Selection cut	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire. Recent thin with slash accumulations.
5384	120+	Selection cut and piling	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire. Recent thin and slash piling.
5385	120+	Selection cut	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire. Recent thin.

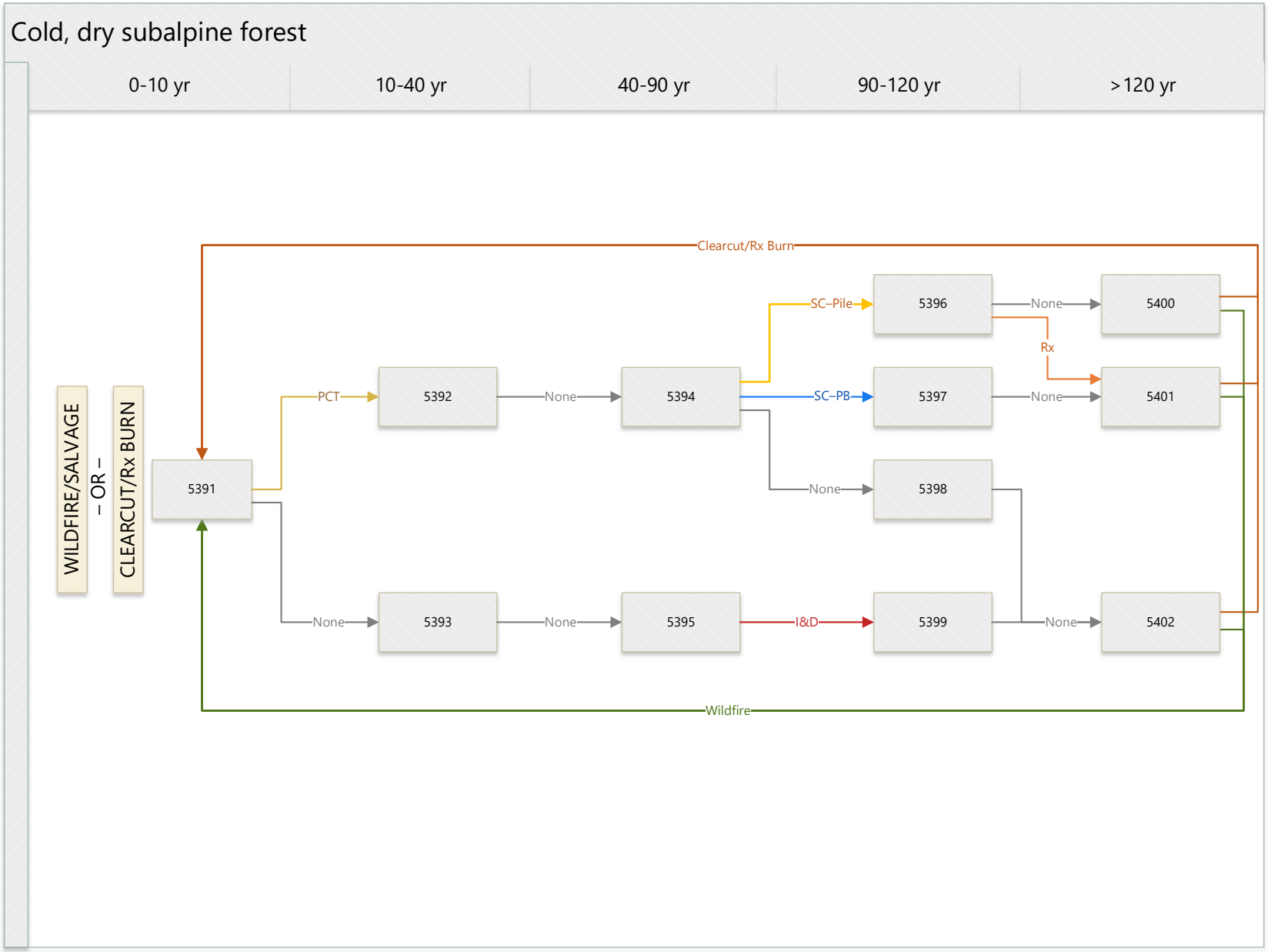
Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5386	120+	Selection cut	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire. Recent thin with shrub understory.
5387	120+	None	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire. Past thin but no recent management.
5388	120+	Selection cut and either pile burn or prescribed burn	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire. Recent thin and prescribed burn.
5389	120+	Selection cut and piling	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire. Recent thin and slash piling.
5390	120+	None	Sierra mixed conifer forest. Common associates include ponderosa pine, Jeffrey pine, white fir, red fir, and incense cedar. Occurs at middle elevations in the southern Cascades and Sierra Nevada. Established over 120 years ago following stand-replacement wildfire. Past thin and mastication but no recent management.

High Elevation Cold Forest

Pathways

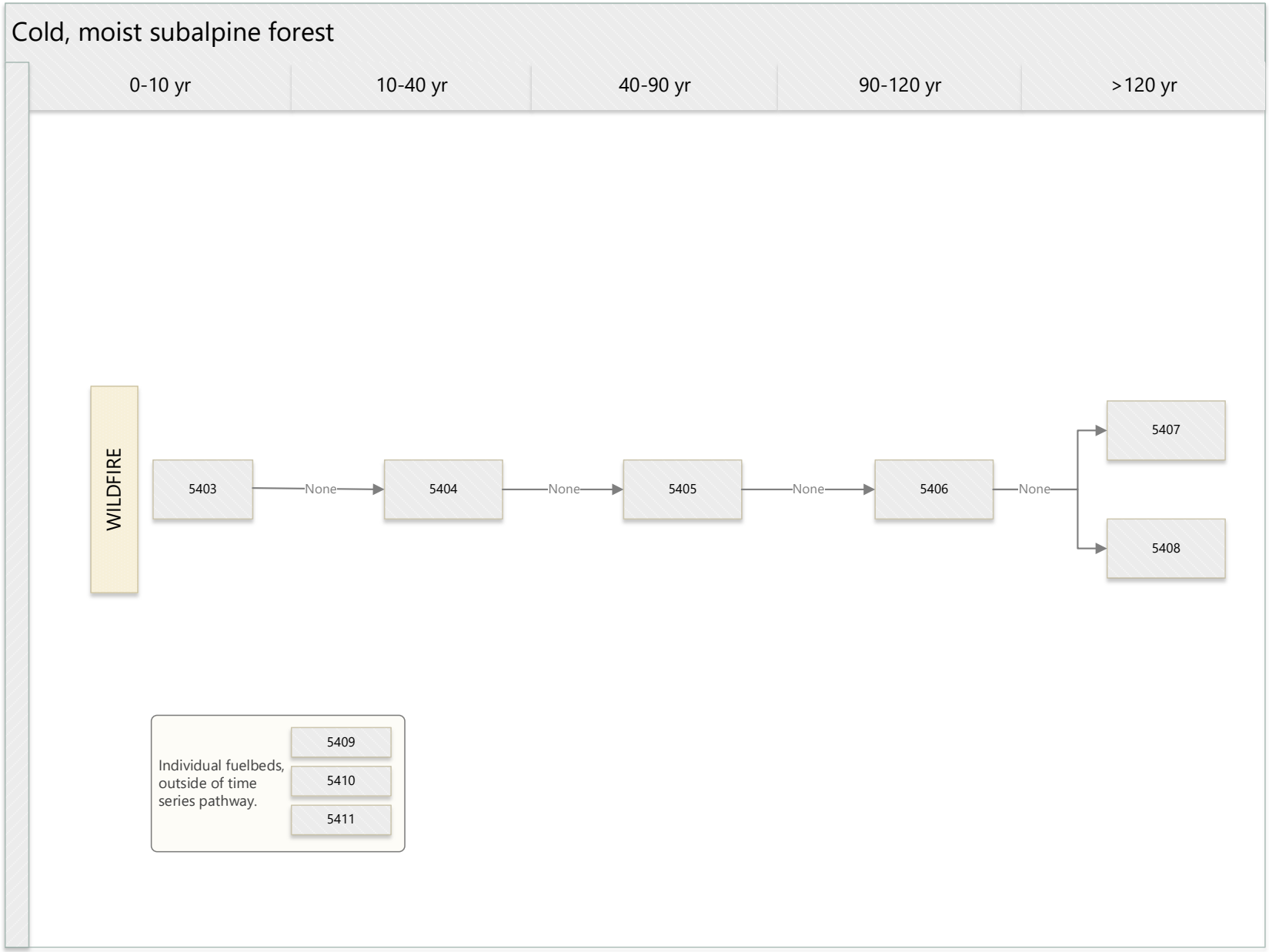
Cold, dry subalpine forest

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5391	0-10	Wildfire	Cold, dry subalpine forest. Established after wildfire less than 10 years ago. Snags, fireweed, herbs, and willow present in this low-density regenerating forest of lodgepole pine, Engelmann spruce and subalpine fir.
5392	10-40	Precommercial thin	Cold, dry subalpine forest. Established following wildfire 10 to 40 years ago. Recent precommercial thin. The majority of snags have fallen. Mixed conifer forest of lodgepole pine, Engelmann spruce and subalpine fir
5393	10-40	None	Cold, dry subalpine forest. Dense stand of lodgepole pine seedlings and saplings from 10 to 40 years old. The majority of snags have fallen. Mixed conifer forest of lodgepole pine, Engelmann spruce, and subalpine fir.
5394	40-90	None	Cold, dry subalpine forest. Established 40 to 90 years ago after wildfire. Past precommercial thin but no recent management. Mixed conifer forest of lodgepole pine, Engelmann spruce, and subalpine fir.
5395	40-90	None	Cold, dry subalpine forest. Established 40 to 90 years ago after wildfire with no subsequent management. Stand has subalpine fir in the understory with natural woody fuel loading characterized by few fine fuels and decomposing large woody debris. Mixed conifer forest of lodgepole pine, Engelmann spruce, and subalpine fir.
5396	90-120	Selection cut and piling	Cold, dry subalpine forest. Established 90 to 120 years ago. Precommercially thinned in the past. Recent thin with hand piling. Mixed conifer forest of lodgepole pine, Engelmann spruce, and subalpine fir.
5397	90-120	Selection cut and pile burn	Cold, dry subalpine forest. Established 90 to 120 years ago after wildfire. Recent thin and pile burn. Mixed conifer forest of lodgepole pine, Engelmann spruce, and subalpine fir.
5398	90-120	None	Cold, dry subalpine forest. Established 90 to 120 years ago. Past precommercial thin but no recent management. Mixed conifer forest of lodgepole pine, Engelmann spruce, and subalpine fir. High-density.
5399	90-120	None	Cold, dry subalpine forest. Established 90 to 120 years ago with no subsequent management. Single-layered lodgepole pine stand with subalpine fir understory. Low-density.
5400	120+	None	Cold, dry subalpine forest. Established over 120 years ago. Past thinning and piling, but no recent management. Multi-layered, medium-density stand. Mixed conifer forest of lodgepole pine, Engelmann spruce, and subalpine fir. Past piling. Medium-density.
5401	120+	None	Cold, dry subalpine forest. Established over 120 years ago no management history. Multi-layered, medium-density. Mixed conifer forest of lodgepole pine, Engelmann spruce, and subalpine fir. Medium-density.
5402	120+	Insect and disease outbreak	Cold, dry subalpine forest. Established over 120 years ago with no management history. Recent insect and disease outbreak has reduced live lodgepole pine density. Mixed conifer forest of lodgepole pine, Engelmann spruce, and subalpine fir.


Cold, dry subalpine forest
0-10 yr
10-40 yr
40-90 yr
90-120 yr
>120 yr
WILDFIRE/SALVAGE
– OR –
CLEARCUT/Rx BURN
5391
PCT
5392
None
5394
SC–Pile
5396
None
5400
Rx
SC–PB
5397
None
5401
None
5398
None
5393
None
5395
I&D
5399
None
5402
Clearcut/Rx Burn
Wildfire

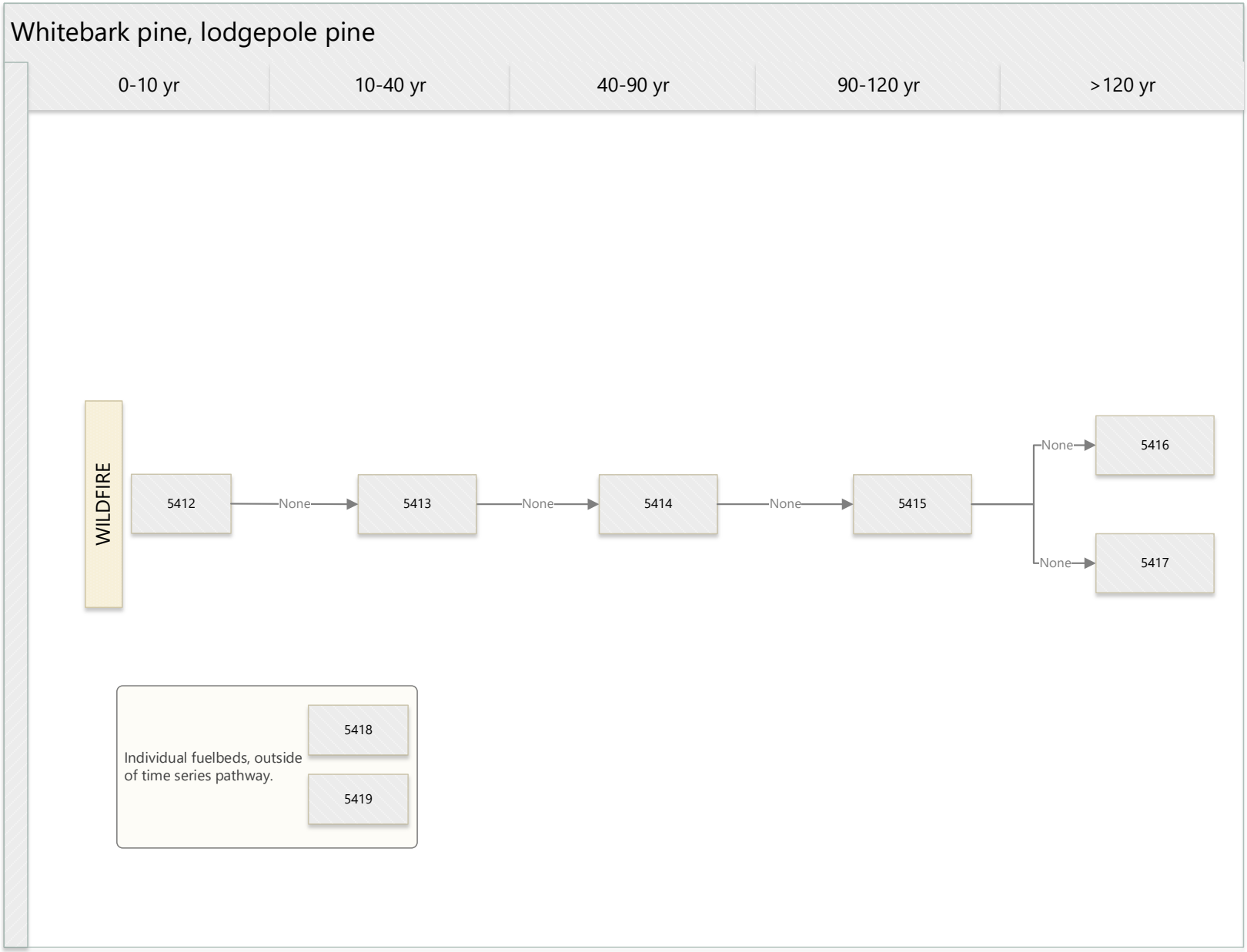
Cold, moist subalpine forest

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5403	0-10	Wildfire	Cold, moist subalpine forest established after wildfire less than 10 years ago. Snags, fireweed, herbs, and willow present in this low-density stand.
5404	10-40	None	Cold, moist subalpine forest. Dense stand of lodgepole pine seedlings and saplings from 10 to 40 years old. The majority of snags have fallen.
5405	40-90	None	Cold, moist subalpine forest. Established 40 to 90 years ago with no management history. Stand is dominated by lodgepole pine with subalpine fir in the understory with natural woody fuel loading characterized by few fine fuels and decomposing large woody debris.
5406	90-120	None	Cold, moist subalpine forest. Established 90 to 120 years ago with no management history. Single-layered lodgepole pine stand with subalpine fir understory.
5407	120+	None	Cold, moist subalpine forest. Established over 120 years ago after wildfire with no subsequent management. Mixed conifer forest of subalpine fir, lodgepole pine, whitebark pine, and Engelmann spruce. Medium-density.
5408	120+	None	Cold, moist subalpine forest. Established over 120 years ago after wildfire with no subsequent management. Mixed conifer forest of subalpine fir, lodgepole pine, whitebark pine, and Engelmann spruce. High-density.
Individual fuelbeds, outside of time series pathway:			
5409	Mature	None	Dry subalpine mixed conifer forest. Low-density and natural fuel load. Growth limited by lack of moisture.
5410	Young	Avalanche	Post-avalanche subalpine forest. Current canopy is composed of trembling aspen but has understory subalpine fir and Engelmann spruce.
5411	Mature	Insect and disease outbreak	Cold, moist subalpine forest. Cool, moist forest in a transition zone between montane mixed conifer and subalpine forests in Washington, Oregon, and the Rocky Mountains. Older forest with insect outbreaks. Subalpine fir, Engelmann spruce, and lodgepole pine are common co-dominants.


Cold, moist subalpine forest
0-10 yr
10-40 yr
40-90 yr
90-120 yr
>120 yr
WILDFIRE
5403
None
5404
None
5405
None
5406
None
5407
5408
Individual fuelbeds, outside of time series pathway.
5409
5410
5411

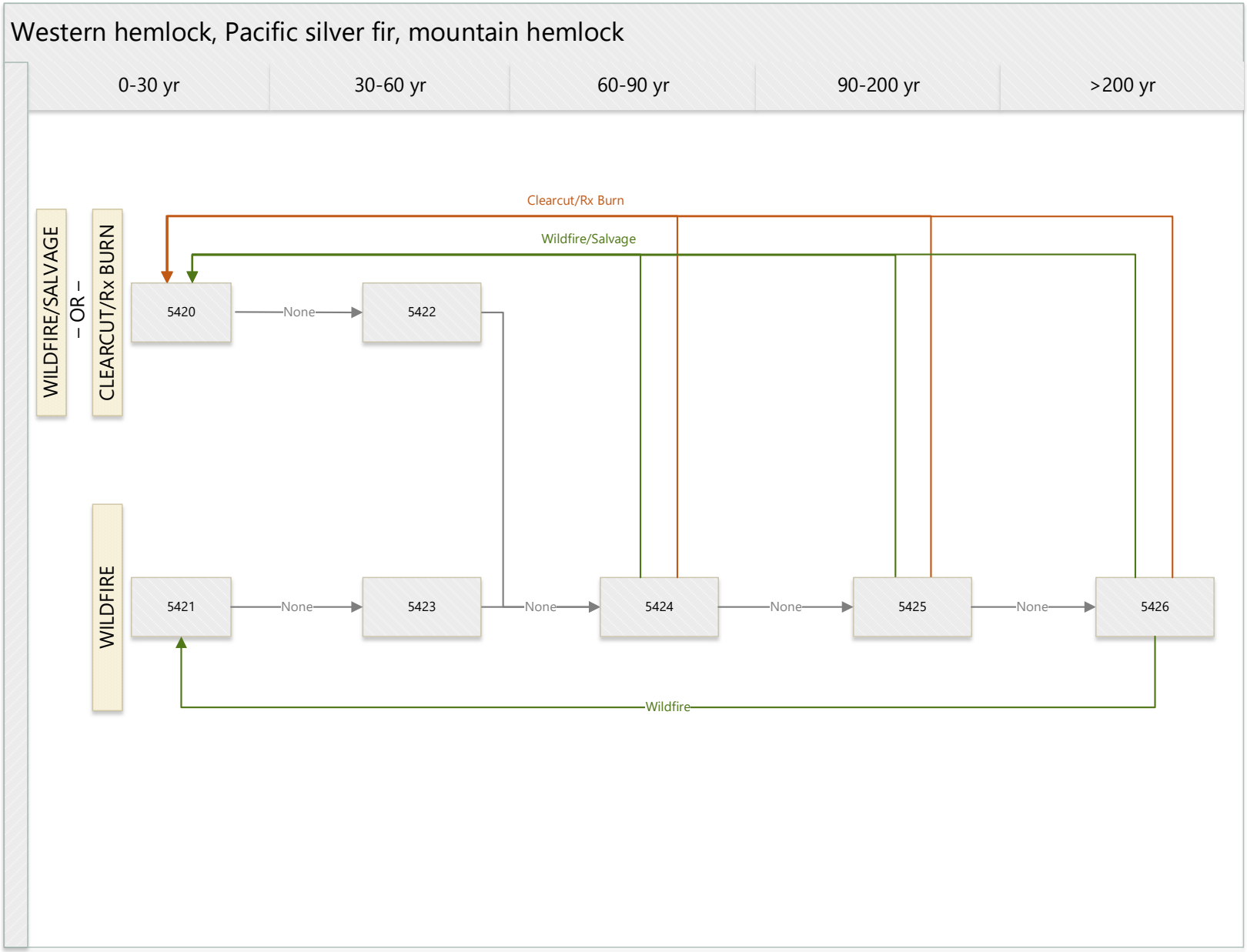
Whitebark pine, lodgepole pine

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5412	0-10	Wildfire	Whitebark pine and lodgepole pine forest. High elevation forests established following stand-replacement wildfire less than 10 years ago.
5413	10-40	None	Whitebark pine and lodgepole pine forest. High elevation established following stand-replacement wildfire 10 to 40 years ago with no history of management.
5414	40-90	None	Whitebark pine and lodgepole pine forest. High elevation forest stablished 40 to 90 years ago following stand-replacement wildfire with no management history.
5415	90-120	None	Whitebark pine and lodgepole pine forest. High elevation forest established 90 to 120 years ago following stand-replacement wildfire with no management history.
5416	120+	None	Whitebark pine and lodgepole pine forest. High elevation forest established over 120 years ago with no management history. Medium-density, mature stand.
5417	120+	None	Whitebark pine and lodgepole pine forest. High elevation forest established over 120 years ago with no management history. High-density, mature stand.
Individual fuelbeds, outside of time series pathway:			
5418	Mature	None	Dry whitebark pine and lodgepole pine forest. Low-density stands with natural woody fuel loads and no history of management.
5419	Mature	Avalanche	Trembling aspen forest established following avalanche in the subalpine zone.


Whitebark pine, lodgepole pine
0-10 yr
10-40 yr
40-90 yr
90-120 yr
>120 yr
WILDFIRE
5412
None
5413
None
5414
None
5415
None
5416
None
5417
Individual fuelbeds, outside of time series pathway.
5418
5419

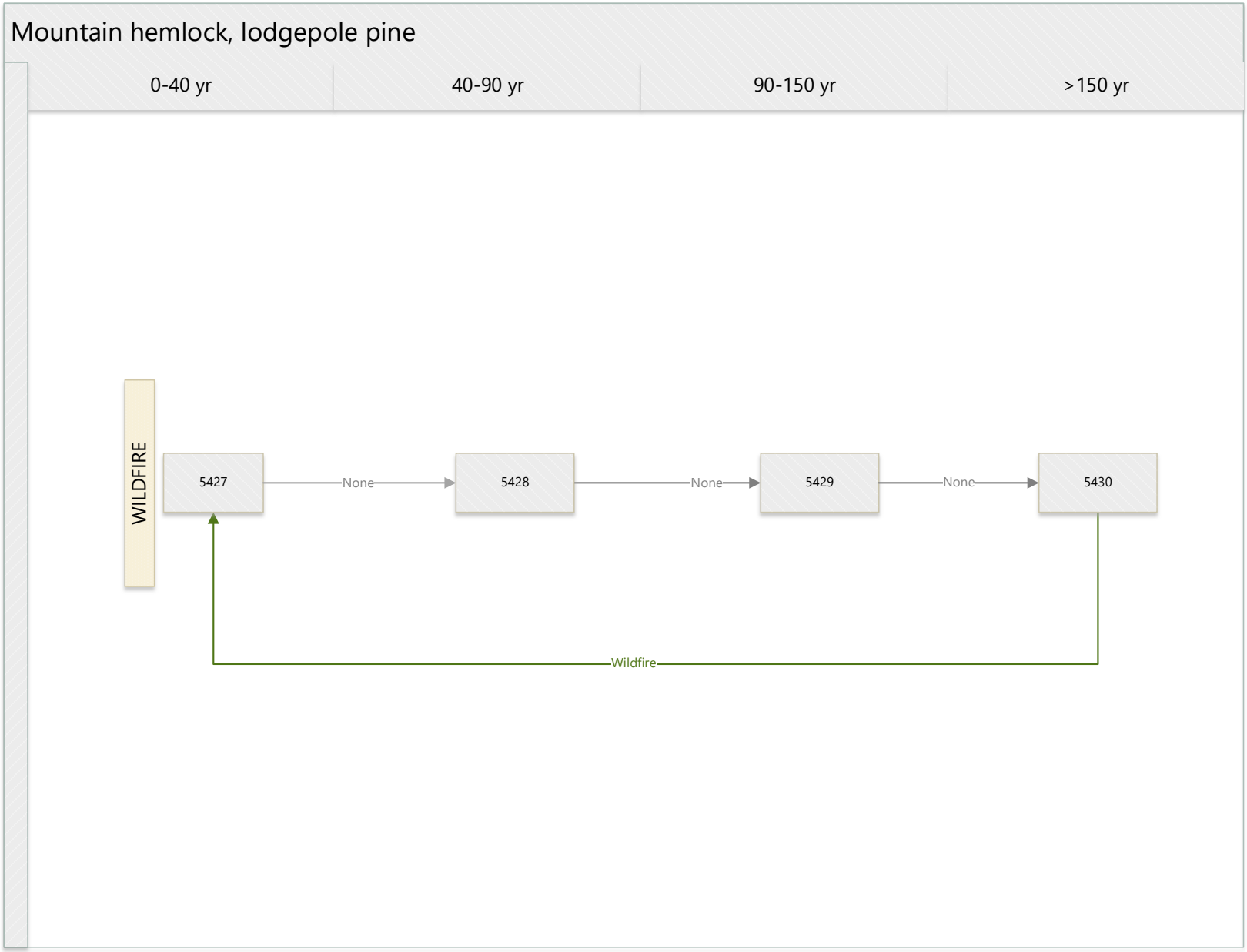
Western hemlock, Pacific silver fir, mountain hemlock

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5420	0-30	Clearcut and prescribed burn or wildfire and salvage harvest	Western hemlock, Pacific silver fir, and mountain hemlock forest. Established less than 30 years ago from clearcutting and prescribed fire, or wildfire and salvage logging. Occurs at high elevations in montane and subalpine forests along the western slopes of the Cascade Range. High-density.
5421	0-30	None	Western hemlock, Pacific silver fir, and mountain hemlock forest. Established less than 30 years ago after wildfire. Occurs at high elevations in montane and subalpine forests along the western crest of the Cascade Range. High-density.
5422	30-60	None	Western hemlock, Pacific silver fir, and mountain hemlock forest. Established 30 to 60 years ago after regeneration cut and prescribed burn, or wildfire and salvage logging, with no subsequent management. Occurs at high elevations in montane and subalpine forests along the western slopes of the Cascade Range. Canopy is multilayered.
5423	30-60	None	Western hemlock, Pacific silver fir, and mountain hemlock forest. Established 30 to 60 years ago after wildfire with no subsequent management. Occurs at high elevations in montane and subalpine forests along the western slopes of the Cascade Range. Single-layered canopy with high tree density and woody fuel loading.
5424	60-90	None	Western hemlock, Pacific silver fir, and mountain hemlock forest. Established 60 to 90 years ago with no history of management. Occurs at high elevations in montane and subalpine forests along the western slope of the Cascade Range. Single layer, high-density stand with high woody fuel load.
5425	90-200	None	Western hemlock, Pacific silver fir, and mountain hemlock forest. Established 90 to 200 years ago with no history of management. Occurs at high elevations in montane and subalpine forests along the western crest of the Cascade Range. Multi-layered, high-density stand.
5426	200+	None	Western hemlock, Pacific silver fir, and mountain hemlock forest. Established over 200 years ago with no history of management. Occurs at high elevations in montane and subalpine forests along the western slopes of the Cascade Crest. Multi-layered, high-density stand with high woody fuel load.


Western hemlock, Pacific silver fir, mountain hemlock
0-30 yr
30-60 yr
60-90 yr
90-200 yr
>200 yr
WILDFIRE/SALVAGE
– OR –
CLEARCUT/Rx BURN
WILDFIRE
Clearcut/Rx Burn
Wildfire/Salvage
5420
None
5422
5421
None
5423
None
5424
None
5425
None
5426
Wildfire

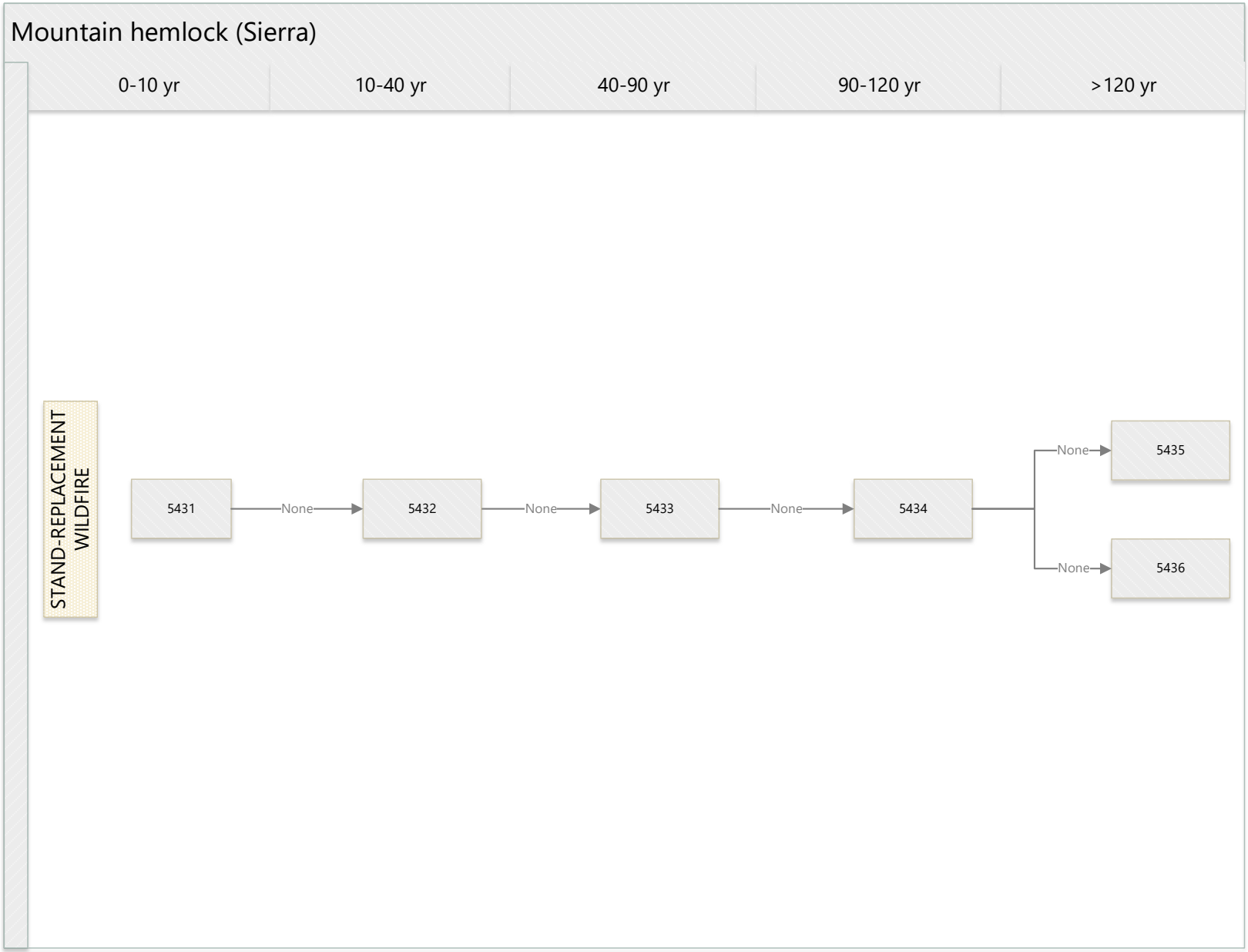
Mountain hemlock, lodgepole pine

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5427	0-40	Wildfire	Mountain hemlock and lodgepole pine forest. Occurs at high elevations in montane and subalpine zones. Established less than 40 years ago following wildfire.
5428	40-90	None	Mountain hemlock and lodgepole pine forest. Occurs at high elevations in montane and subalpine zones. Established 40 to 90 years ago following wildfire. Single layered lodgepole dominated stand with mountain hemlock in understory.
5429	90-150	Insect and disease outbreak	Mountain hemlock and lodgepole pine forest. Occurs at high elevations in montane and subalpine zones. Established 90 to 150 years ago following wildfire. Lodgepole pine was the early seral species but has been impacted by insects and disease and contributes to snags and downed wood.
5430	150+	None	Mountain hemlock and lodgepole pine forest. Occurs at high elevations in montane and subalpine zones. Established over 150 years ago following wildfire.


Mountain hemlock, lodgepole pine
0-40 yr
40-90 yr
90-150 yr
>150 yr
WILDFIRE
5427
None
5428
None
5429
None
5430
Wildfire

Mountain hemlock (Sierra)

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5431	0-10	Wildfire	Mountain hemlock forest. Occurs at high elevations of Cascade Mountains and Sierra Nevada. Established less than 10 years ago following stand-replacement wildfire. Stands are dominated by tree regeneration including lodgepole pine, western white pine, red fir, shrubs and scattered snags.
5432	10-40	None	Mountain hemlock forest. Occurs at high elevations of Cascade Mountains and Sierra Nevada. Established 10 to 40 years ago following stand-replacement wildfire with no subsequent management. Dominated by pine and mountain hemlock seedlings and saplings.
5433	40-90	None	Mountain hemlock forest. Occurs at high elevations of Cascade Mountains and Sierra Nevada. Established 40 to 90 years ago following stand-replacement wildfire. Lodgepole pine and mountain hemlock dominate the canopy and regeneration is continuing to establish. Natural woody fuel loadings with large woody debris decomposing.
5434	90-120	None	Mountain hemlock forest. Occurs at high elevations of Cascade Mountains and Sierra Nevada. Established 90 to 120 years ago following stand-replacement wildfire and has had no subsequent management.
5435	120+	None	Mountain hemlock forest. Occurs at high elevations of Cascade Mountains and Sierra Nevada. Medium-density stand established over 120 years ago following stand-replacement wildfire with no subsequent management.
5436	120+	None	Mountain hemlock forest. Occurs at high elevations of Cascade Mountains and Sierra Nevada. High-density stand established over 120 years ago following stand-replacement wildfire with no subsequent management.

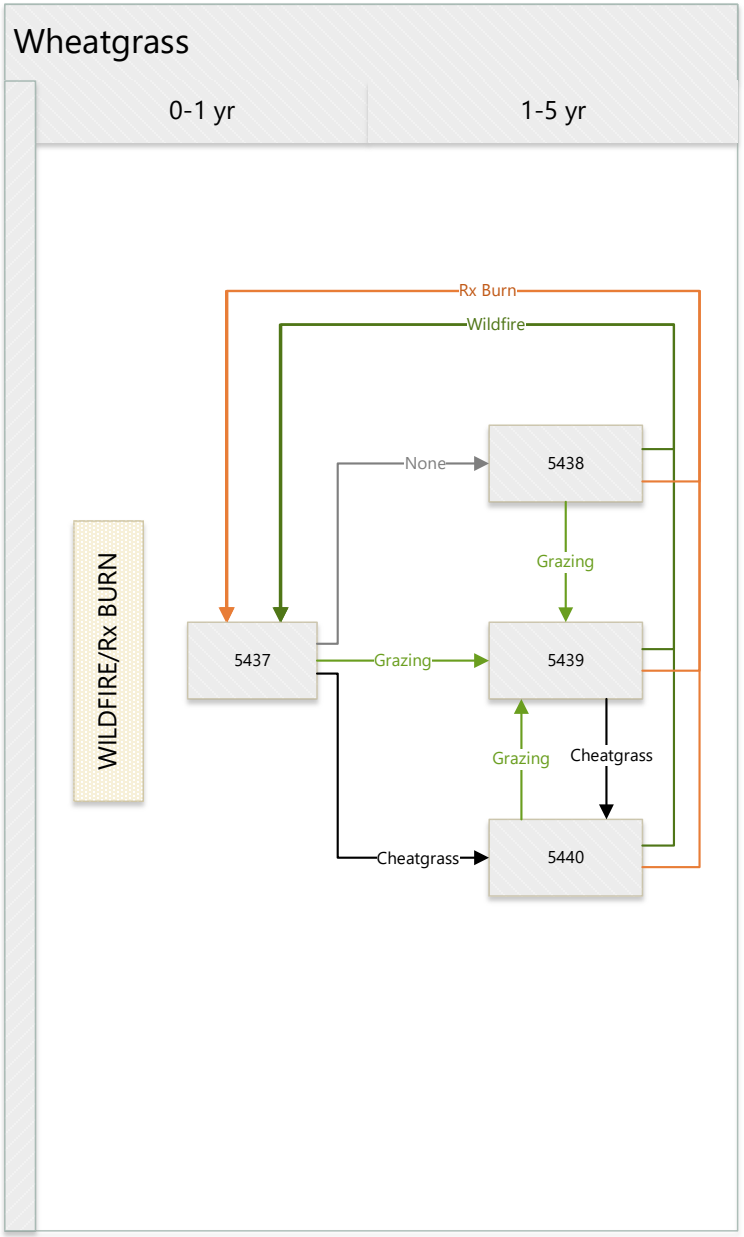

Mountain hemlock (Sierra)
0-10 yr
10-40 yr
40-90 yr
90-120 yr
>120 yr
STAND-REPLACEMENT WILDFIRE
5431
None
5432
None
5433
None
5434
None
5435
None
5436

Grass, Shrubland, and Savanna

Pathways

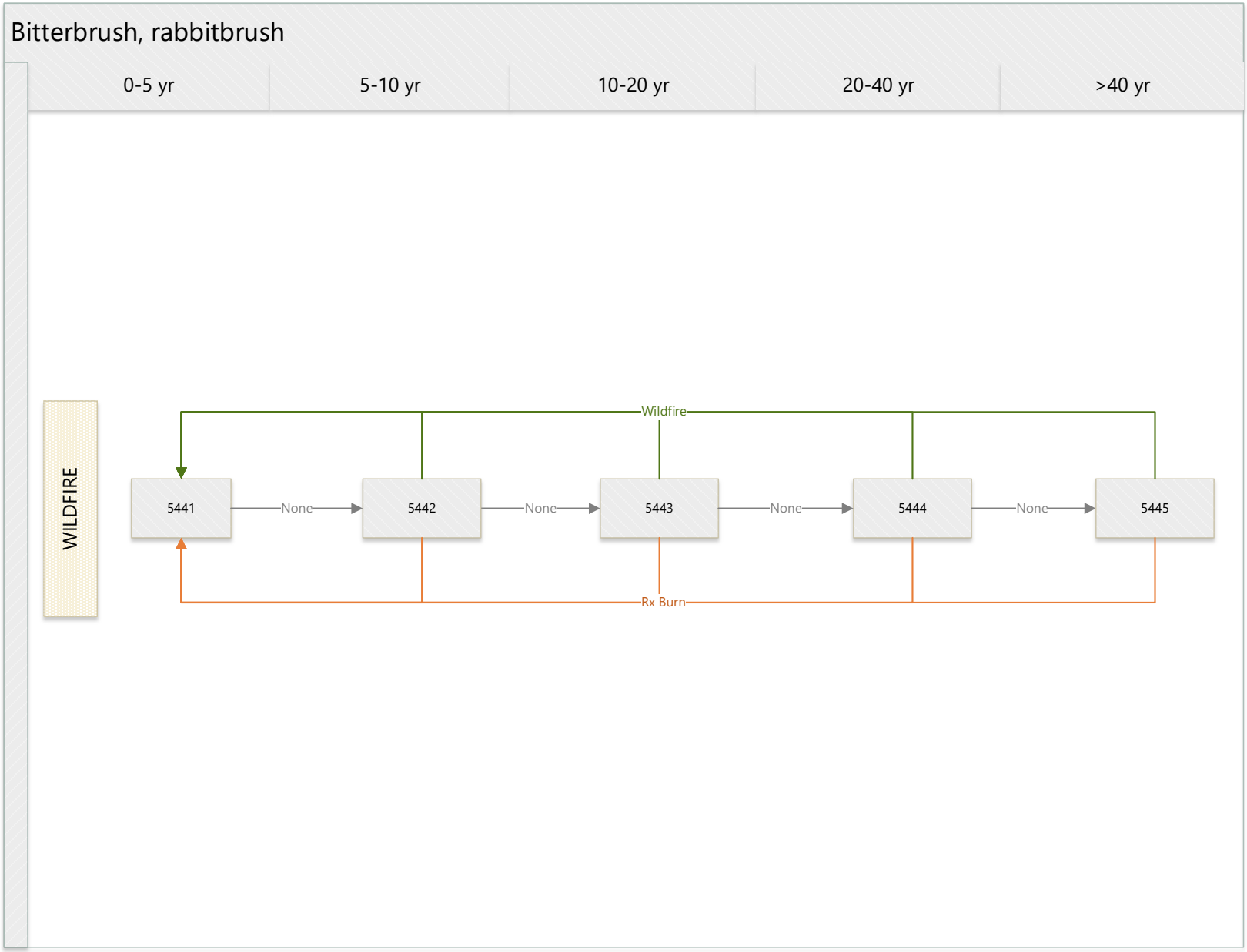
Wheatgrass

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5437	0-1	Prescribed burn or wildfire	Bluebunch wheatgrass grassland less than 1 year ago after prescribed fire or wildfire.
5438	1-5	None	Bluebunch wheatgrass grassland 1 to 5 years after prescribed fire or wildfire. No subsequent management.
5439	1-5	Grazing	Bluebunch wheatgrass grassland 1 to 5 years after prescribed fire or wildfire. Site has been grazed for several years.
5440	1-5	Invasive species	Bluebunch wheatgrass grassland 1 to 5 years after prescribed fire or wildfire. Site has been invaded by cheatgrass.


Wheatgrass
0-1 yr
1-5 yr
WILDFIRE/Rx BURN
Rx Burn
Wildfire
None
5438
Grazing
5437
Grazing
5439
Grazing
Cheatgrass
Cheatgrass
5440

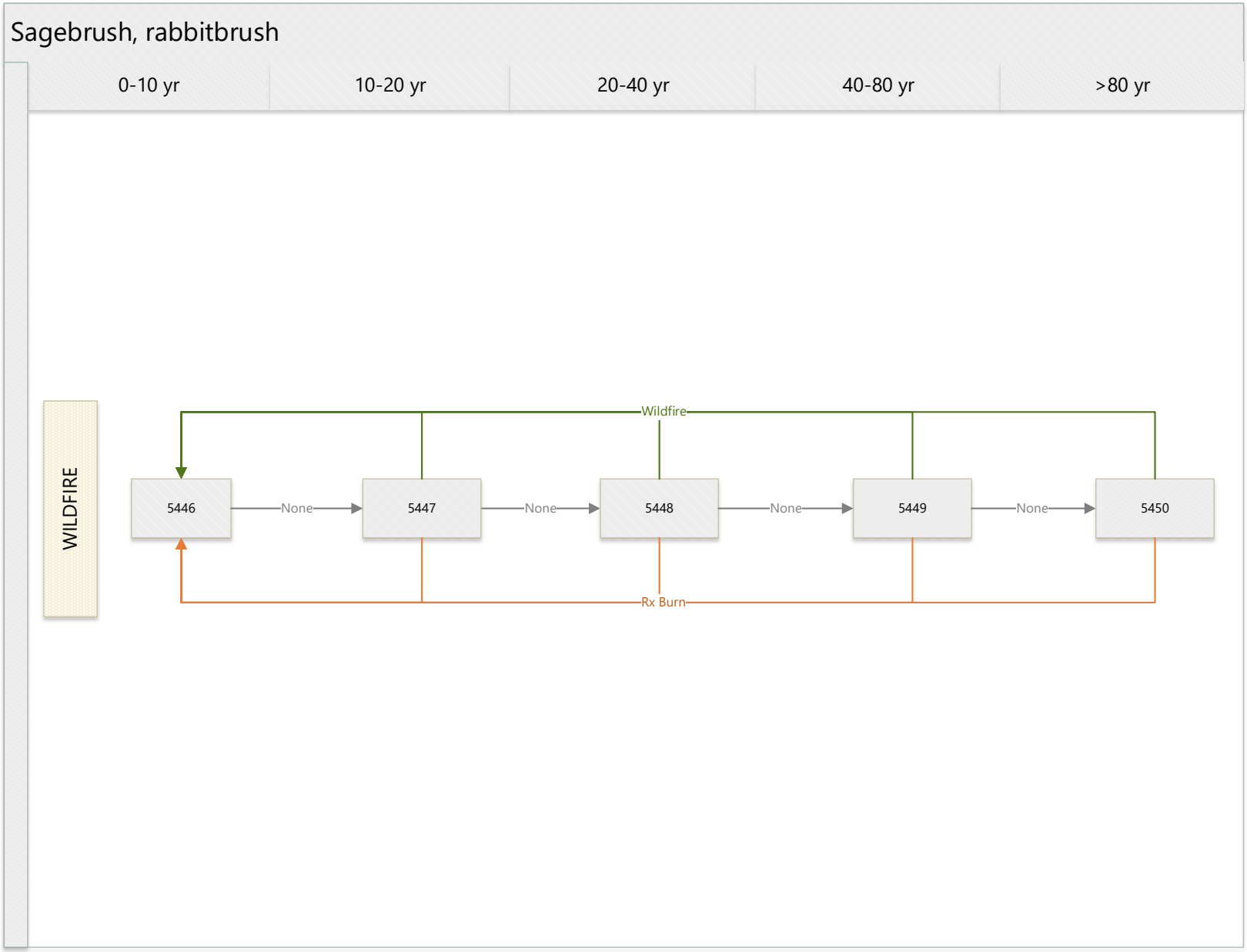
Bitterbrush, rabbitbrush

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5441	0-5	Prescribed burn or wildfire	Bitterbrush and rabbitbrush shrubland within 5 years after prescribed fire or wildfire.
5442	5-10	None	Bitterbrush and rabbitbrush shrubland 5 to 10 years after prescribed fire or wildfire. No subsequent management.
5443	10-20	None	Bitterbrush and rabbitbrush shrubland 10 to 20 years ago after prescribed fire or wildfire. No subsequent management.
5444	20-40	None	Bitterbrush and rabbitbrush shrubland 20 to 40 years ago after prescribed fire or wildfire. No subsequent management.
5445	40+	None	Bitterbrush and rabbitbrush shrubland over 40 years after prescribed fire or wildfire. No subsequent management.


Bitterbrush, rabbitbrush
0-5 yr
5-10 yr
10-20 yr
20-40 yr
>40 yr
WILDFIRE
Wildfire
5441
None
5442
None
5443
None
5444
None
5445
Rx Burn

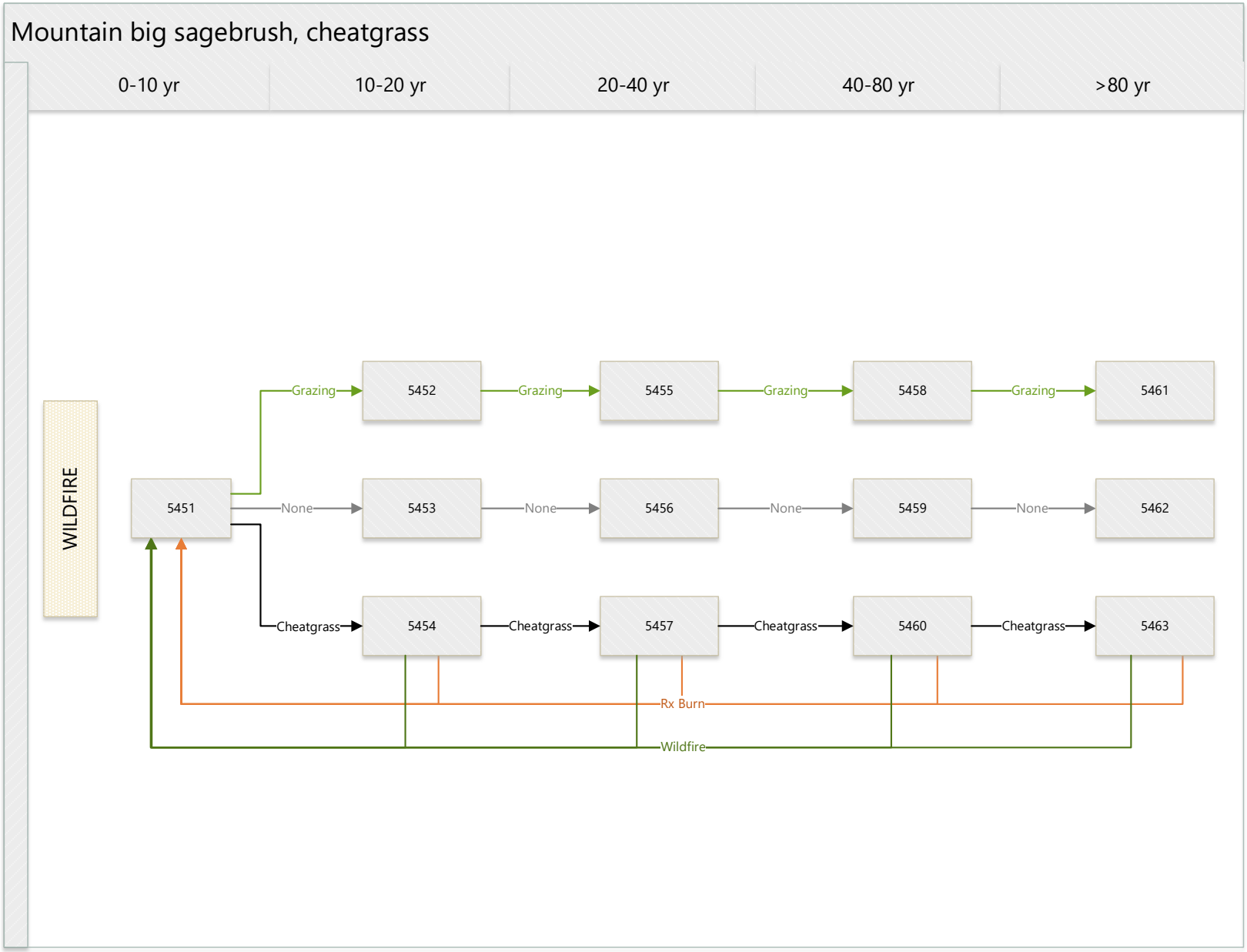
Sagebrush, rabbitbrush

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5446	0-10	Prescribed burn or wildfire	Sagebrush shrubland less than 10 years after prescribed fire or wildfire.
5447	10-20	None	Sagebrush shrubland 10 to 20 years after prescribed fire or wildfire.
5448	20-40	None	Sagebrush shrubland 20 to 40 years after prescribed fire or wildfire.
5449	40-80	None	Sagebrush shrubland 40 to 80 years after prescribed fire or wildfire. Shrub cover has increased in the absence of fire.
5450	80+	None	Sagebrush shrubland over 80 years after prescribed fire or wildfire. Shrub cover has increased in the absence of fire.


Sagebrush, rabbitbrush
0-10 yr
10-20 yr
20-40 yr
40-80 yr
>80 yr
WILDFIRE
Wildfire
5446
None
5447
None
5448
None
5449
None
5450
Rx Burn

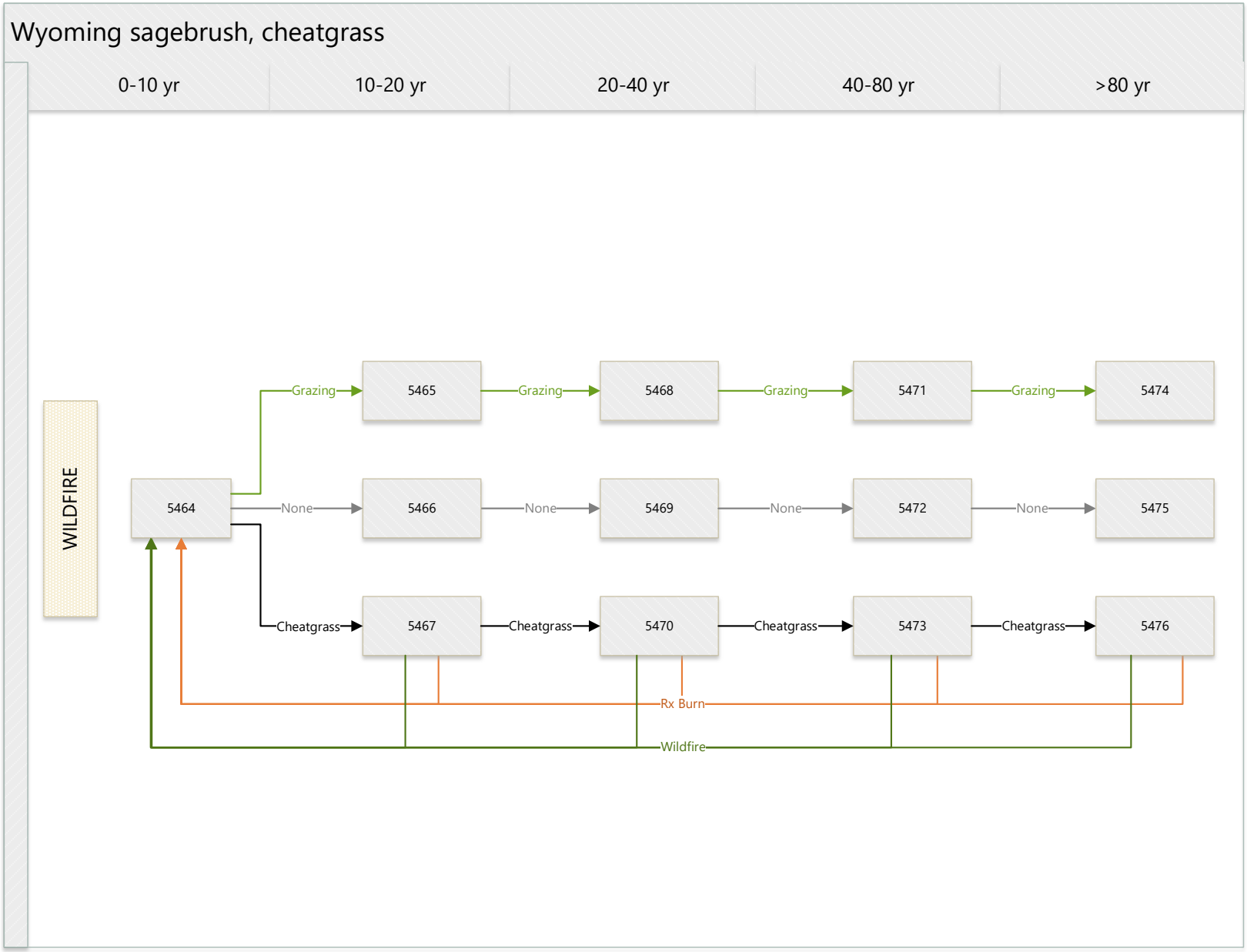
Mountain big sagebrush, cheatgrass

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5451	0-10	Prescribed burn or wildfire	Mountain big sagebrush and cheatgrass shrubland less than 10 years after prescribed fire or wildfire.
5452	10-20	Grazing	Mountain big sagebrush and cheatgrass shrubland 10 to 20 years after prescribed fire or wildfire. Recent grazing.
5453	10-20	None	Mountain big sagebrush and cheatgrass shrubland 10 to 20 years after prescribed fire or wildfire.
5454	10-20	Invasive species - cheatgrass	Mountain big sagebrush and cheatgrass shrubland 10 to 20 years after prescribed fire or wildfire. Site has been invaded by cheatgrass.
5455	20-40	Grazing	Mountain big sagebrush and cheatgrass shrubland 20 to 40 years after prescribed fire or wildfire. Recent grazing.
5456	20-40	None	Mountain big sagebrush and cheatgrass shrubland 20 to 40 years after prescribed fire or wildfire.
5457	20-40	Invasive species - cheatgrass	Mountain big sagebrush and cheatgrass shrubland 20 to 40 years after prescribed fire or wildfire. Site has been invaded by cheatgrass.
5458	40-80	Grazing	Mountain big sagebrush and cheatgrass shrublands 40 to 80 years after prescribed fire or wildfire. Recent grazing.
5459	40-80	None	Mountain big sagebrush and cheatgrass shrubland 40 to 80 years after prescribed fire or wildfire.
5460	40-80	Invasive species - cheatgrass	Mountain big sagebrush and cheatgrass shrubland 40 to 80 years after prescribed fire or wildfire. Site has been invaded by cheatgrass.
5461	80+	Grazing	Mountain big sagebrush and cheatgrass shrubland over 80 years after prescribed fire or wildfire. Recent grazing.
5462	80+	None	Mountain big sagebrush and cheatgrass shrubland over 80 years after prescribed fire or wildfire.
5463	80+	Invasive species - cheatgrass	Mountain big sagebrush and cheatgrass shrubland over 80 years after prescribed fire or wildfire. Site has been invaded by cheatgrass.


Mountain big sagebrush, cheatgrass
0-10 yr
10-20 yr
20-40 yr
40-80 yr
>80 yr
WILDFIRE
5451
Grazing
5452
Grazing
5455
Grazing
5458
Grazing
5461
None
5453
None
5456
None
5459
None
5462
Cheatgrass
5454
Cheatgrass
5457
Cheatgrass
5460
Cheatgrass
5463
Rx Burn
Wildfire

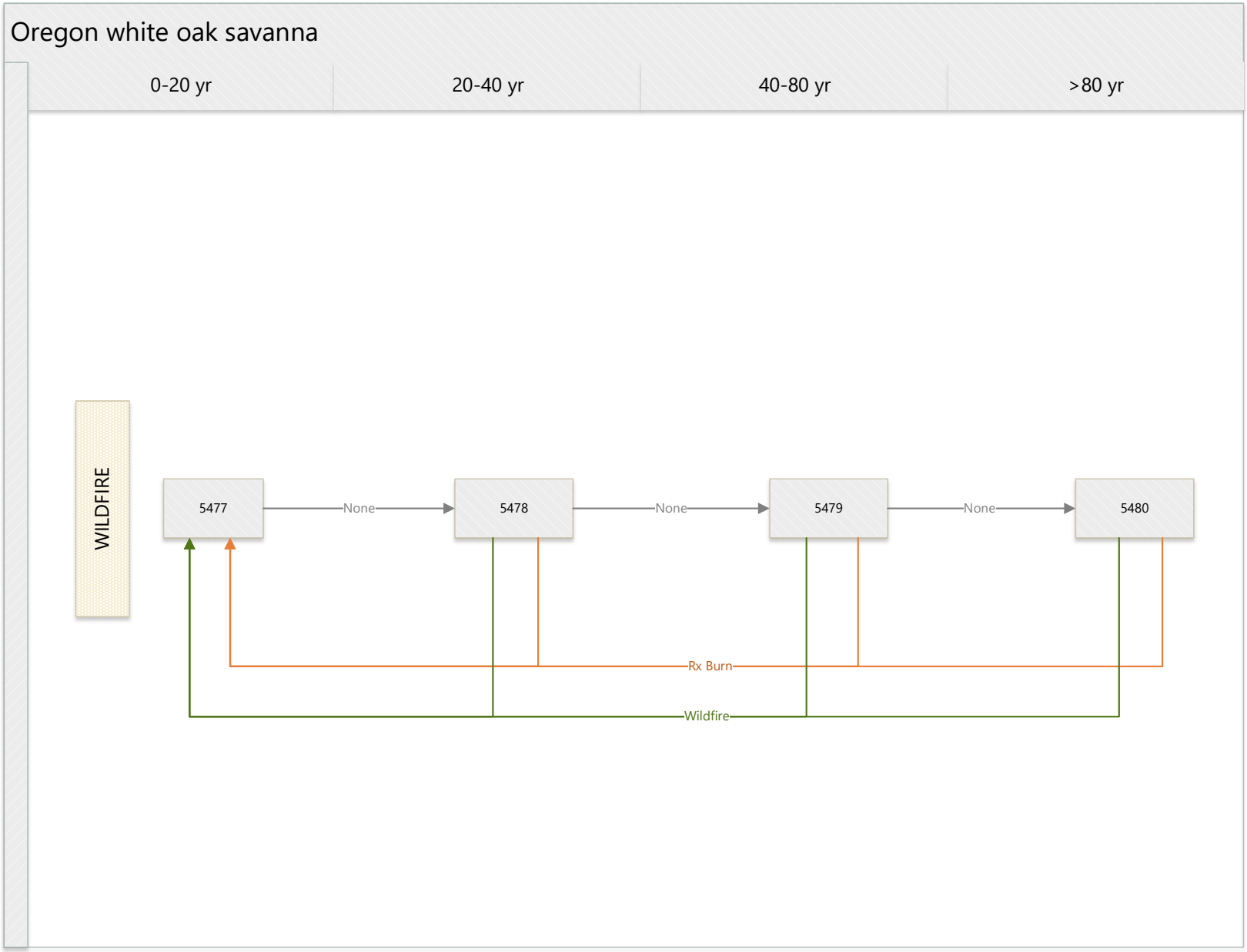
Wyoming sagebrush, cheatgrass

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5464	0-10	Prescribed burn or wildfire	Wyoming sagebrush and cheatgrass shrubland less than 10 years after prescribed fire or wildfire.
5465	10-20	Grazing	Wyoming sagebrush and cheatgrass shrubland 10 to 20 years after prescribed fire or wildfire. Recent grazing.
5466	10-20	None	Wyoming sagebrush and cheatgrass shrubland 10 to 20 years after prescribed fire or wildfire.
5467	10-20	Invasive species - cheatgrass	Wyoming sagebrush and cheatgrass shrubland 10 to 20 years after prescribed fire or wildfire. Site has been invaded by cheatgrass.
5468	20-40	Grazing	Wyoming sagebrush and cheatgrass shrubland 20 to 40 years after prescribed fire or wildfire. Recent grazing.
5469	20-40	None	Wyoming sagebrush and cheatgrass shrubland. Established 20 to 40 years after prescribed fire or wildfire.
5470	20-40	Invasive species - cheatgrass	Wyoming sagebrush and cheatgrass shrubland. Established 20 to 40 years after prescribed fire or wildfire. Site has been invaded by cheatgrass.
5471	40-80	Grazing	Wyoming sagebrush and cheatgrass shrubland. Established 40 to 80 years after prescribed fire or wildfire. Grazing.
5472	40-80	None	Wyoming sagebrush and cheatgrass shrubland. Established 40 to 80 years after prescribed fire or wildfire.
5473	40-80	Invasive species - cheatgrass	Wyoming sagebrush and cheatgrass shrubland. Established 40 to 80 years after prescribed fire or wildfire. Site has been invaded by cheatgrass.
5474	80+	Grazing	Wyoming sagebrush and cheatgrass shrubland. Established over 80 years after prescribed fire or wildfire. Site has been grazed.
5475	80+	None	Wyoming sagebrush and cheatgrass shrubland. Established over 80 years after prescribed fire or wildfire.
5476	80+	Invasive species - cheatgrass	Wyoming sagebrush and cheatgrass shrubland. Established over 80 years after prescribed fire or wildfire. Site has been invaded by cheatgrass.


Wyoming sagebrush, cheatgrass
0-10 yr
10-20 yr
20-40 yr
40-80 yr
>80 yr
WILDFIRE
5464
Grazing
5465
Grazing
5468
Grazing
5471
Grazing
5474
None
5466
None
5469
None
5472
None
5475
Cheatgrass
5467
Cheatgrass
5470
Cheatgrass
5473
Cheatgrass
5476
Rx Burn
Wildfire

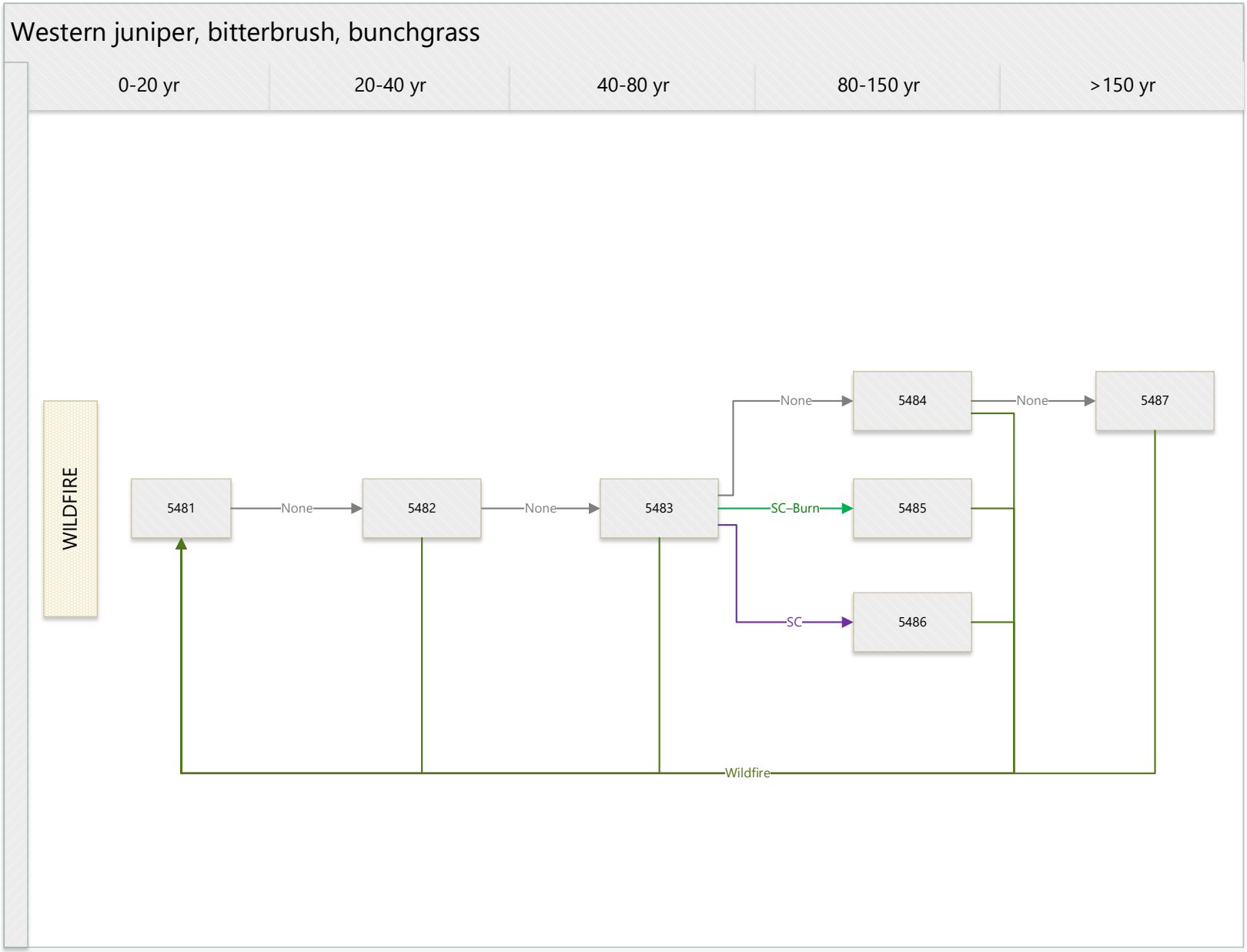
Oregon white oak savanna

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5477	0-20	Prescribed burn or wildfire	Oregon white oak forest. Established less than 20 years after prescribed fire or wildfire. Occurs in the inland valleys of southeastern Vancouver Island through western Washington, western and central Oregon, and northern California.
5478	20-40	None	Oregon white oak forest. Established 20 to 40 years after prescribed fire or wildfire. Occurs in the inland valleys of southeastern Vancouver Island through western Washington, western and central Oregon, and northern California.
5479	40-80	None	Oregon white oak forest. Established 40-80 years after prescribed fire or wildfire. Occurs in the inland valleys of southeastern Vancouver Island through western Washington, western and central Oregon, and northern California.
5480	80+	None	Oregon white oak forest. Established over 80 years after prescribed fire or wildfire. Occurs in the inland valleys of southeastern Vancouver Island through western Washington, western and central Oregon, and northern California.


Oregon white oak savanna
0-20 yr
20-40 yr
40-80 yr
>80 yr
WILDFIRE
5477
None
5478
None
5479
None
5480
Rx Burn
Wildfire

Western juniper, bitterbrush, bunchgrass

Fuelbed Number	Age Class (yrs)	Change Agent(s)	Fuelbed Description
5481	0-20	Prescribed burn or wildfire	Western juniper, bitterbrush and bunchgrass savanna. Occurs as transitional ecosystem between ponderosa pine forests and sagebrush steppe in eastern Oregon and throughout the Great Basin. Established less than 20 years ago after prescribed fire or wildfire.
5482	20-40	None	Western juniper, bitterbrush and bunchgrass savanna. Occurs as transitional ecosystem between ponderosa pine forests and sagebrush steppe in eastern Oregon and throughout the Great Basin. Established 20 to 40 years ago after prescribed fire or wildfire.
5483	40-80	None	Western juniper, bitterbrush and bunchgrass savanna. Occurs as transitional ecosystem between ponderosa pine forests and sagebrush steppe in eastern Oregon and throughout the Great Basin. Established 40 to 80 years ago after prescribed fire or wildfire.
5484	80-150	None	Western juniper, bitterbrush and bunchgrass savanna. Occurs as transitional ecosystem between ponderosa pine forests and sagebrush steppe in eastern Oregon and throughout the Great Basin. Established 80 to 150 years ago after prescribed fire or wildfire.
5485	80-150	Selection cut and prescribed burn	Western juniper, bitterbrush and bunchgrass savanna. Occurs as transitional ecosystem between ponderosa pine forests and sagebrush steppe in eastern Oregon and throughout the Great Basin. Established 80 to 150 years ago after prescribed fire or wildfire. Recent thin and prescribed burn.
5486	80-150	Selection cut	Western juniper, bitterbrush and bunchgrass savanna. Occurs as transitional ecosystem between ponderosa pine forests and sagebrush steppe in northeastern Oregon and throughout the Great Basin. Established 80 to 150 years ago after prescribed fire or wildfire. Recent thin to reduce juniper density.
5487	150+	None	Western juniper, bitterbrush and bunchgrass savanna. Established over 150 years ago after prescribed fire or wildfire. Occurs as transitional ecosystem between ponderosa pine forests and sagebrush steppe in eastern Oregon and throughout the Great Basin.


Western juniper, bitterbrush, bunchgrass
0-20 yr
20-40 yr
40-80 yr
80-150 yr
>150 yr
WILDFIRE
5481
None
5482
None
5483
None
5484
None
5487
SC–Burn
5485
SC
5486
Wildfire

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