# Midscale Vegetation Data Interpretation Key
# June 25, 1996

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Please refer all questions in regard to this dataset to:
Paul Hessburg
USFS Wenatchee Forestry Sciences Lab
(509) 662-4315

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**The following items exist within the Mid-scale Vegetation Arc/Info Coverage:**

| ITEM NAME | WIDTH | OUTPUT | TYPE | N.DEC |
|---|---|---|---|---|
| AREA | 4 | 12 | F | 3 |
| PERIMETER | 4 | 12 | F | 3 |
| YAK02C# | 4 | 5 | B | |
| YAK02C-ID | 4 | 5 | B | |
| PGON | 4 | 5 | C | |
| PGON# | 4 | 5 | I | |
| ACRES | 12 | 12 | N | 2 |
| SUB_BASIN | 3 | 4 | I | |
| SUBWATERSHED | 20 | 21 | C | |
| PHOTO-YEAR | 10 | 11 | C | |
| TOTL_CC | 3 | 4 | I | |
| OS_CC | 3 | 4 | I | |
| US_CC | 3 | 4 | I | |
| CLMP | 3 | 4 | I | |
| CLMP_DENS | 3 | 4 | I | |
| CLMP_SIZE | 3 | 4 | I | |
| CRWN_DIFF | 3 | 4 | I | |
| CNPY_LYRS | 3 | 4 | I | |
| RIPR_WET | 3 | 4 | I | |
| NON_FRST | 3 | 4 | I | |
| LOG_TYPE | 3 | 4 | I | |
| LOG_P_CC | 3 | 4 | I | |
| DENS_OS | 5 | 6 | I | |
| DENS_US | 5 | 6 | I | |
| SIZE_OS | 3 | 4 | I | |
| SIZE_US | 3 | 4 | I | |
| SPP_OS | 3 | 4 | I | |
| SPP_US | 3 | 4 | I | |
| DEAD_SNAG | 3 | 4 | I | |
| ELEV_BELT | 3 | 4 | I | |
| ELEVATION | 4 | 5 | B | |
| ASPECT | 4 | 5 | B | |
| SLOPE | 4 | 5 | B | |
| ELEV_PCT | 4 | 12 | F | 3 |
| ASPECT_PCT | 4 | 12 | F | 3 |
| SLOPE_PCT | 4 | 12 | F | 3 |
| NON_FRST-SPP_OS | 3 | 4 | I | |
| NON_FRST-TCC | 3 | 4 | I | |
| NON_FRST-TCOV | 3 | 4 | I | |
| COVER | 20 | 21 | C | |
| SERIES | 20 | 21 | C | |
| SERIES-CODE | 4 | 5 | I | |
| SERIES_PCT | 4 | 12 | F | 3 |
| STRUCTURE | 20 | 21 | C | |
| STRUCTURE_2 | 20 | 21 | C | |
| AROS_SQ | 3 | 4 | I | |
| AROS_HA | 6 | 7 | N | 2 |

| | | | | |
|---|---|---|---|---|
| AROS_CS | 3 | 4 | I | |
| AROS_AGE | 3 | 4 | I | |

| ITEM NAME | WIDTH | OUTPUT | TYPE | N.DEC |
|---|---|---|---|---|
| AROS_C | 3 | 4 | I | |
| AROS_SUM | 6 | 7 | N | 2 |
| AROS_HAZ | 3 | 4 | I | |
| DFB_SQ | 3 | 4 | I | |
| DFB_HA | 6 | 7 | N | 2 |
| DFB_CS | 3 | 4 | I | |
| DFB_AGE | 3 | 4 | I | |
| DFB_D | 3 | 4 | I | |
| DFB_C | 3 | 4 | I | |
| DFB_SUM | 6 | 7 | N | 2 |
| DFB_HAZ | 3 | 4 | I | |
| DFDM_SQ | 3 | 4 | I | |
| DFDM_HA | 6 | 7 | N | 2 |
| DFDM_CS | 3 | 4 | I | |
| DFDM_AGE | 3 | 4 | I | |
| DFDM_C | 3 | 4 | I | |
| DFDM_SUM | 6 | 7 | N | 2 |
| DFDM_HAZ | 3 | 4 | I | |
| FE_SQ | 3 | 4 | I | |
| FE_HA | 6 | 7 | N | 2 |
| FE_CS | 3 | 4 | I | |
| FE_HS | 3 | 4 | I | |
| FE_D | 3 | 4 | I | |
| FE_C | 3 | 4 | I | |
| FE_SUM | 6 | 7 | N | 2 |
| FE_HAZ | 3 | 4 | I | |
| LPDM_SQ | 3 | 4 | I | |
| LPDM_HA | 6 | 7 | N | 2 |
| LPDM_CS | 3 | 4 | I | |
| LPDM_AGE | 3 | 4 | I | |
| LPDM_C | 3 | 4 | I | |
| LPDM_SUM | 6 | 7 | N | 2 |
| LPDM_HAZ | 3 | 4 | I | |
| MPB1_SQ | 3 | 4 | I | |
| MPB1_HA | 6 | 7 | N | 2 |
| MPB1_HS | 3 | 4 | I | |
| MPB1_D | 3 | 4 | I | |
| MPB1_V | 3 | 4 | I | |
| MPB1_C | 3 | 4 | I | |
| MPB1_SUM | 6 | 7 | N | 2 |
| MPB1_HAZ | 3 | 4 | I | |
| MPB2_SQ | 3 | 4 | I | |
| MPB2_HA | 6 | 7 | N | 2 |
| MPB2_AGE | 3 | 4 | I | |
| MPB2_D | 3 | 4 | I | |
| MPB2_V | 3 | 4 | I | |
| MPB2_C | 3 | 4 | I | |
| MPB2_SUM | 6 | 7 | N | 2 |
| MPB2_HAZ | 3 | 4 | I | |
| MPB3_SQ | 3 | 4 | I | |

| | | | | |
|---|---|---|---|---|
| MPB3_HA | 6 | 7 | N | 2 |
| MPB3_HS | 3 | 4 | I | |
| MPB3_D | 3 | 4 | I | |
| MPB3_V | 3 | 4 | I | |
| MPB3_C | 3 | 4 | I | |
| MPB3_SUM | 6 | 7 | N | 2 |
| MPB3_HAZ | 3 | 4 | I | |
| PHEAN_SQ | 3 | 4 | I | |
| PHEAN_HA | 6 | 7 | N | 2 |
| PHEAN_CS | 3 | 4 | I | |
| PHEAN_AGE | 3 | 4 | I | |
| PHEAN_DH | 3 | 4 | I | |
| PHEAN_C | 3 | 4 | I | |

| ITEM NAME | WIDTH | OUTPUT | TYPE | N.DEC |
|---|---|---|---|---|
| PHEAN_SUM | 6 | 7 | N | 2 |
| PHEAN_HAZ | 3 | 4 | I | |
| PHWE_HAZ | 6 | 7 | N | 2 |
| PHWE_CS | 3 | 4 | I | |
| PHWE_AGE | 3 | 4 | I | |
| PHWE_C | 3 | 4 | I | |
| PHWE_SUM | 6 | 7 | N | 2 |
| PHWE_HAZ | 3 | 4 | I | |
| PPDM_SQ | 3 | 4 | I | |
| PPDM_HA | 6 | 7 | N | 2 |
| PPDM_CS | 3 | 4 | I | |
| PPDM_AGE | 3 | 4 | I | |
| PPDM_C | 3 | 4 | I | |
| PPDM_SUM | 6 | 7 | N | 2 |
| PPDM_HAZ | 3 | 4 | I | |
| RRSR_SQ | 3 | 4 | I | |
| RRSR_HA | 6 | 7 | N | 2 |
| RRSR_CS | 3 | 4 | I | |
| RRSR_AGE | 3 | 4 | I | |
| RRSR_DH | 3 | 4 | I | |
| RRSR_SUM | 6 | 7 | N | 2 |
| RRSR_HAZ | 3 | 4 | I | |
| SB_SQ | 3 | 4 | I | |
| SB_HA | 6 | 7 | N | 2 |
| SB_TS | 3 | 4 | I | |
| SB_HS | 3 | 4 | I | |
| SB_D | 3 | 4 | I | |
| SB_C | 3 | 4 | I | |
| SB_SUM | 6 | 7 | N | 2 |
| SB_HAZ | 3 | 4 | I | |
| SHEAN_SQ | 3 | 4 | I | |
| SHEAN_HA | 6 | 7 | N | 2 |
| SHEAN_CS | 3 | 4 | I | |
| SHEAN_AGE | 3 | 4 | I | |
| SHEAN_DH | 3 | 4 | I | |
| SHEAN_C | 3 | 4 | I | |
| SHEAN_SUM | 6 | 7 | N | 2 |
| SHEAN_HAZ | 3 | 4 | I | |
| SRBR_SQ | 3 | 4 | I | |
| SRBR_HA | 6 | 7 | N | 2 |

| | | | | |
|---|---|---|---|---|
| SRBR_AGE | 3 | 4 | I | |
| SRBR_C | 3 | 4 | I | |
| SRBR_SUM | 6 | 7 | N | 2 |
| SRBR_HAZ | 3 | 4 | I | |
| TRBR_HA | 6 | 7 | N | 2 |
| TRBR_AGE | 3 | 4 | I | |
| TRBR_TS | 3 | 4 | I | |
| TRBR_C | 3 | 4 | I | |
| TRBR_SUM | 3 | 4 | I | |
| TRBR_HAZ | 3 | 4 | I | |
| WLDM_SQ | 3 | 4 | I | |
| WLDM_HA | 6 | 7 | N | 2 |
| WLDM_CS | 3 | 4 | I | |
| WLDM_AGE | 3 | 4 | I | |
| WLDM_C | 3 | 4 | I | |
| WLDM_SUM | 6 | 7 | N | 2 |
| WLDM_HAZ | 3 | 4 | I | |
| WPB1_SQ | 3 | 4 | I | |
| WPB1_HA | 6 | 7 | N | 2 |
| WPB1_AGE | 3 | 4 | I | |
| WPB1_D | 3 | 4 | I | |
| WPB1_C | 3 | 4 | I | |
| WPB1_SUM | 6 | 7 | N | 2 |

| ITEM NAME | WIDTH | OUTPUT | TYPE | N.DEC |
|---|---|---|---|---|
| WPB1_HAZ | 3 | 4 | I | |
| WPB2_SQ | 3 | 4 | I | |
| WPB2_HA | 6 | 7 | N | 2 |
| WPB2_AGE | 3 | 4 | I | |
| WPB2_V | 3 | 4 | I | |
| WPB2_D | 3 | 4 | I | |
| WPB2_C | 3 | 4 | I | |
| WPB2_SUM | 6 | 7 | N | 2 |
| WPB2_HAZ | 3 | 4 | I | |
| WPBR1_SQ | 3 | 4 | I | |
| WPBR1_HA | 6 | 7 | N | 2 |
| WPBR1_HS | 3 | 4 | I | |
| WPBR1_SUM | 6 | 7 | N | 2 |
| WPBR1_HAZ | 3 | 4 | I | |
| WPBR2_SQ | 3 | 4 | I | |
| WPBR2_HA | 6 | 7 | N | 2 |
| WPBR2_HS | 3 | 4 | I | |
| WPBR2_SUM | 6 | 7 | N | 2 |
| WPBR2_HAZ | 3 | 4 | I | |
| WSB_SQ | 3 | 4 | I | |
| WSB_HA | 6 | 7 | N | 2 |
| WSB_CS | 3 | 4 | I | |
| WSB_AGE | 3 | 4 | I | |
| WSB_D | 3 | 4 | I | |
| WSB_V | 3 | 4 | I | |
| WSB_C | 3 | 4 | I | |
| WSB_SUM | 6 | 7 | N | 2 |
| WSB_HAZ | 3 | 4 | I | |

**NOTE: All fields that contain a value of zero are considered empty.**

**AREA**

Source: Generated by Arc/Info.
Name: Area
Description: Area of each polygon, measured in coverage units (Square Meters)

**PERIMETER**

Source: Generated by Arc/Info.
Name: Perimeter
Description: Length of each polygon boundary, measured in coverage units (Square Meters)

**YAK03C#**

Source: Generated by Arc/Info.
Name: Cover Number
Description: Internal arc number (values assigned by Arc/Info)

**YAK03C-ID**

Source: Generated by Arc/Info.
Name: Cover ID
Description: User-ID (Values assigned by the Arc/Info User)

**PGON**

Source: Recorded by the Photo Interpreter.
Name: Polygon
Description: All polygons should have been numbered in a continuous series for each subwatershed. This value was originally the unique value that tied a vegetation polygon to the data entry form.

**NOTE: Pgon is not unique in all cases. During data conversion, the subsamples were clipped between the current and the historic in order to achieve identical sample areas. In the event that a horseshoe shaped polygon was cut-off at the boundary, two polygons with the same PGON value occurred. See item pgon# for a workaround.**

**PGON#**

Source: Generated by the Wenatchee FSL.
Name: Polygon Number.
Description: This item is a unique polygon number for each individual polygon. It was generated with
calc PGON# = $RECNO - 1
This results in a global polygon with a pgon# value of zero, and sequential numbering from one through *n* polygons (where *n* is the maximum number of polygons).

**ACRES**

Source: Generated by the Wenatchee FSL.
Name: Acres
Description: This item was generated with:
*calc acres = area / 4046.856*

**SUB_BASIN**

Source: Recorded by the Photo Interpreter.
Name: Sub-basin
Description:

1 = Deschutes (DES)
2 = Grande Ronde (GRO)
3 = Methow (MET)
4 = Pend Oreille (PEN)
5 = Wenatchee (WEN)
19 = Lochsa (LOC)
20 = Lost (LST)
21 = Lower Flathead (LFH)
22 = Lower Henrys (LHE)
23 = Lower John Day (LJD)

6 = Yakima (YAK)
7 = Kettle (KET)
8 = San Poil (SPO)
9 = Silvies (SIL)
10 = Big Wood (BWD)
11 = Blackfoot Mtn. (BFM)
12 = Boise-Mores (BOM)
13 = Burnt (BUR)
14 = Crooked Rattlesnake(CRT)
15 = Donner und Blitzen (DUB)
16 = Flint Rock (FLR)
17 = Lake Walcott (LWC)
18 = Lemhi (LMH)
24 = Medicine Lodge (MDL)
25 = Palisades (PSD)
26 = Palouse (PLS)
27 = Snake Headwaters (SHW)
28 = South Fork Clearwater (SFC)
29 = South Fork Salmon (SFS)
30 = Swan (SWN)
31 = Upper John Day (UJD)
32 = Upper Klamath Lake (UKL)
33 = Upper Owyhee (UOW)
34 = Upper Coeur d' Alene
35 = Upper Middle Fork Salmon (UMS)
36 = Yaak (YAA)
37 = Bitterroot (BTR)

**SUBWATERSHED**
Source: Recorded by Photo Interpreter.
Name: Subwatershed

Description: This is the number that references the subwatershed. This number does not contain any embedded information except in the third batch of data that is being developed. In the third batch the subwatershed number is an aggregation of the 5th and 6th field HUCs that the subwatershed is mostly contained within. For example if 90% of a subwatershed falls within the 6th field HUC # 016 which is in the 5th field HUC # 023, the subwatershed number would be 2316. The code is the 5th field with the preceeding zero dropped concatenated to the 6th field HUC with the preceeding zero dropped.

**TOTL_CC**
Source: Recorded by the Photo Interpreter
Name: Total Crown Cover
Description: Estimated total crown closure (trees only) to the nearest ten percent.

**OS_CC**
Source: Recorded by the Photo Interpreter
Name: Overstory Crown Cover
Description: Estimated Overstory crown cover (trees only) to the nearest ten percent.

**US_CC**
Source: Generated by the Wenatchee FSL
Name: Understory Crown Cover
Description: This item was generated with
*calc us_cc = totl_cc - os_cc*

**CLMP**
Source: Recorded by the Photo Interpreter
Name: Clumpiness
Description: An answer to the question...
"Is the tree cover naturally clumpy?"

1 = Yes -- If yes, then **CLMP_DENS** and **CLMP_SIZE** were recorded

2 = No

**CLMP_DENS**
Source: Recorded by the Photo Interpreter.
Name: Clump Density
Description: Recorded only when **CLMP** = 1

Widely Moderately

Scattered = 1 Dense = 2 Dense = 3

**CLMP_SIZE**

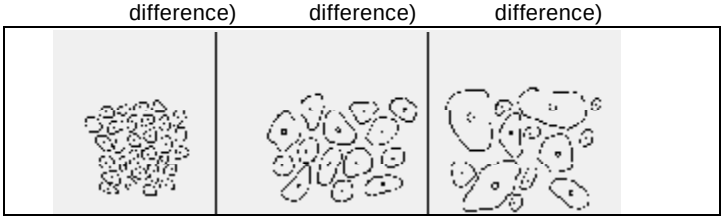
Source: Recorded by the Photo Interpreter
Name: Clump Size
Description: Recorded only where **CLMP** = 1

1 = small (< 1 ac)
2 = medium (1-5 ac)
3 = large (>5 ac and < 10 ac)

**CRWN_DIFF**

Source: Recorded by the Photo Interpreter
Name: Crown Differentiation
Description: The degree of differentiation among overstory tree crowns.

Low = 1 (< 30% difference) Moderate = 2 (30 to 100% difference) High = 3 (> 100% difference)



**CNPY_LYRS**

Source: Recorded by the Photo Interpreter
Name: Canopy Layers-Forest Types
Description:

1 = Single canopy layer
2 = Two canopy layers
3 = More than two layers visible

**RIPR_WET**

Source: Recorded by the Photo Interpreter
Name: Riparian or Wetland?
Description: For both forested and non-forested polygons...

1 = Riparian or Wetland area
2 = Not a Riparian or Wetland area

**NON_FRST**

Source: Recorded by the Photo Interpreter
Name: Nonforest Type
Description:

30 = rock (all)
31 = water (lake, pond)
32 = wet meadow, marsh (year-round saturated soils)[1]
33 = alpine meadow [1]
34 = dry meadow (only seasonally saturated soils)[1]
35 = grass/forb (after logging)
36 = shrubland (with at least 5% canopy cover)[1,2]
37 = bare ground (burned or logged)
38 = bare ground (slumps, erosion)
39 = agricultrual cropland
40 = urban/rural
41 = pasture (irrigated grasses/forbs)
42 = grassland (with at least 20% canopy cover) [1,2]
43 = woodland (< 10% total tree cover and at least 2 trees/ac)[1]
(Used for DES, GRO, MET, PEN, WEN, YAK, KET, SPO, SIL basins only;) Option 43 is **not used** for basins 10-36 listed under column A.)
44 = bare ground (roadcuts or sidecast adjacent to state or interstate highways).
45 = stream channel and nonvegetated floodplain
46 = grass/forb (after wildfire)
47 = Sand dune
48 = Glacier
49 = Bare ground

Notes: Nonforest types have < 10% total tree crown cover. Items **ripr_wet**, **non_frst**, **log_type**, **dead_snag**, and **elev_belt** are also completed for these nonforested types.

[1] If option 32, 33, 34, 36, 42, or 43 is selected, additional data entry may be included in **non_frst-spp-os** and **non_frst-os_cc**.

[2] If option 36 or 42 is selected, additional data entry may be included in **non_frst-tcov**.

**LOG_TYPE**

Source: Recorded by Photo Interpreter.
Name: Logging Entry
Description: All clearcut patches are < 10 acres.

1 = no logging apparent
2 = regenerated (clearcut, shelterwood, seedtree harvests)
3 = selectively harvested (selective harvest, overstory removal, final removal)
4 = thinned (commercial, precommercial)
5 = patch clearcut (Where the clearcut patches are estimated to be less than 10 acres)

**LOG_P_CC**

Source: Recorded by the Photo Interpreter.
Name: Logging Percent Crown Cover.
Description: The percentage of the polygon area in clearcut patches to the nearest ten percent.

**DENS_OS**

Source: Recorded by the Photo Interpreter.

| | | |
|---|---|---|
| | Name: | Overstory Density |
| | Description: | The overstory trees per acre are given from reliable data sources (e.g., TSE stocking surveys, inventory plots, MSS, NSS) where available. Where no data was available, a 0 is recorded. |
| **DENS_US** | Source: | Recorded by the Photo Interpreter. |
| | Name: | Understory Density. |
| | Description: | The understory trees per acre are given from reliable data sources (e.g., TSE stocking surveys, inventory plots, MSS, NSS) where available. Where no data was available, a 0 is recorded. |
| **SIZE_OS** | Source: | Recorded by the Photo Interpreter. |
| | Name: | Overstory Size |
| | Description: | |

1 = seedlings and saplings ( < 5.0" DBH)
2 = poles (5 to 8.9" DBH)
3 = small trees (9 to 15.9"DBH)
4 = medium trees (16 to 25.0" DBH)
5 = large trees ( > 25.0" DBH)

| | | |
|---|---|---|
| **SIZE_US** | Source: | Recorded by the Photo Interpreter |
| | Name: | Understory Size |
| | Description: | If there is more than one understory layer, the size class of the understory with the dominant crown closure was recorded. |

1 = seedlings and saplings ( < 5.0" DBH)
2 = poles (5 to 8.9" DBH)
3 = small trees (9 to 15.9"DBH)
4 = medium trees (16 to 25.0" DBH)

**SPP_OS and SPP_US**

Source: Recorded by the Photo Interpreter.
Name: Overstory Species and Understory Species
Description: The Dominant Overstory Species by BA per acre.
The Dominant Understory Species by trees per acre.

| | |
|---|---|
| 1 = PIPO | Ponderosa Pine |
| 2 = LAOC | Western Larch |
| 3 = PICO | Lodgepole Pine/Fir/Pacific Silver Fir |
| 4 = PSME | Douglas Fir |
| 5 = ABGR/ABCO | Grand Fir /White Fir |
| 6 = ABAM | Pacific Silver Fir |
| 7 = ABLA2/PIEN | Subalpine Fir/Englemann Spruce |
| 8 = TSHE/THPL | Western Hemlock/Western Redcedar |
| 9 = TSME | Mountain Hemlock |
| 10 = PIAL/LALY | Whitebark Pine/Subalpine Larch |
| 11 = PIMO/PILA | Western White Pine/Sugar Pine |
| 12 = Hardwood | Maple, Birch, Poplar, etc (OR, WA only) |
| 13 = Juniper | JUOC, JUSC, etc. |
| 14 = ABPR | Noble Fir |
| 15 = ABMA | Shasta Red Fir |
| 16 = PIPO/PIMO/PILA | Ponderosa Pine /Western White Pine/Sugar Pine |
| 17 = PIPO/PSME | Ponderosa Pine/Douglas Fir |
| 18 = PSME/TSME | Douglas Fir/Mountain Hemlock |
| 19 = PICO/PIEN | Lodgepole Pine/Engelmann Spruce |
| 50 = TSME/ABCO | Mountain Hemlock/White Fir |
| 51 = PSME/PIEN | Douglas Fir/Engelmann Spruce |
| 52 = CADE | Incense Cedar |
| 53 = LAOC/PICO | Western Larch/Lodgepole Pine |
| 54 = PSME/LAOC | Douglas Fir/Western Larch |
| 55 = PIFL | Limber Pine |
| 56 = PIPU | Blue Spruce |
| 57 = PIMO2 | Singleleaf Pinyon Pine |
| 58 = PIGL | White Spruce |
| 59 = Maple | Maple |
| 60 = Birch | Birch |
| 61 = Aspen | Aspen |
| 62 = Cottonwood | Cottonwood |
| 63 = PSME/PIFL | Douglas Fir/Limber Pine |
| 64 = PIMO2/JUSC or PIMO2/JUOC | Singleleaf Pinyon Pine/Rocky Mountain Juniper or Singleleaf Pinyon Pine/Western Juniper |
| 65 = PSME/PIMO | Douglas Fir/Western White Pine |
| 66 = ABGR/PIMO | Grand Fir/Western White Pine |
| 67 = ABLA2/PIMO | Subalpine Fir/Western White Pine |
| 68 = LAOC/PIMO | Western Larch/Western White Pine |
| 69 = LAOC/PICO/PIMO | Western Larch/Lodgepole Pine/Western White Pine |
| 70 = LAOC/PIPO | Western Larch/Ponderosa Pine |
| 71 = LAOC/PIEN | Western Larch/Engelmann Spruce |
| 72 = PICO/ABLA2 | Lodgepole Pine/Subalpine Fir |
| 73 = PICO/PSME | Lodgepole Pine/Douglas Fir |
| 74 = PICO/ABGR | Lodgepole Pine/Grand Fir |
| 75 = PSME/ABGR | Douglas Fir/Grand Fir |
| 76 = ABLA2/PIFL | Subalpine Fir/Limber Pine |
| 77 = ABGR/PIEN | Grand Fir/Engelmann Spruce |
| 78 = PSME/Aspen | Douglas Fir/Aspen |
| 79 = PICO/Aspen | Lodgepole Pine/Aspen |
| 90 = ABLA2/PSME | Subalpine Fir/Douglas Fir |
| 91 = ABGR/PIPO | Grand Fir/Ponderosa Pine |
| 92 = ABGR/ABLA2 | Grand Fir/Subalpine Fir |
| 93 = ABGR/LAOC | Grand Fir/Western Larch |
| 94 = Russian Olive | Russian Olive |
| 95 = ABLA2/PIAL | Subalpine Fir/Whitebark Pine |
| 20 = PIPO | Ponderosa Pine |
| 21 = LAOC/PICO | Western Larch/Lodgepole Pine |
| 22 = PSME/ABGR/ ABCO | Douglas Fir/Grand Fir/White Fir/Silver Fir |
| 23 = TSHE/THPL | Western Hemlock/Western Redcedar |
| 24 = TSME | Mountain Hemlock |
| 25 = ABLA2/PIEN | Subalpine Fir/Engelmann Spruce |
| 26 = Hardwood | Hardwood (OR/WA only) |
| 27 = Juniper | Juniper |
| 28 = Grass/Forb | Grass/Forb |
| 29 = Shrub | Shrub |
| 30 = Bare Ground | Bare Ground |
| 31 = PICO | Lodgepole Pine |
| 32 = PIPO/PICO | Ponderosa Pine/Lodgepole Pine |
| 33 = PIPO/PSME | Ponderosa Pine/Douglas Fir |
| 34 = ABGR/ABCO | Grand Fir/White Fir |
| 35 = TSME/ABCO | Mtin. Hemlock/White Fir |
| 36 = TSME/PICO | Mountain Hemlock/Lodgepole Pine |
| 37 = PSME/TSME | Douglas Fir/Mountain Hemlock |
| 38 = PICO/PIEN | Lodgepole Pine/Engelmann Spruce |
| 39 = PIAL/LALY | Whitebark Pine/Subalpine Larch |
| 40 = ABMA | Shasta Red Fir |
| 41 = CADE | Incense Cedar |
| 42 = PIMO | Western White Pine |
| 43 = PSME/LAOC | Douglas Fir/Western Larch |
| 44 = PSME/PIEN | Douglas Fir/Engelmann Spruce |
| 45 = PIFL | Limber Pine |
| 46 = PIPU | Blue Spruce |
| 47 = PIMO2 | Singleleaf Pinyon Pine |
| 48 = PIGL | White Spruce |
| 80 = Maple | Maple |
| 81 = Birch | Birch |
| 82 = Aspen | Aspen |
| 83 = Cottonwood | Cottonwood |
| 84 = PSME/PIFL | Douglas Fir/Limber Pine |
| 85 = PICO/PSME | Lodgepole Pine/Douglas Fir |
| 86 = Xete | Beargrass |
| 87 = ABAM | Pacific Silver Fir |

**DEAD_SNAG**

Source: Generated by Photo Interpreter
Name: Dead Trees / Snags
Description: Dead tree and snag abundance are estimated.

1 = none apparent
2 = < 10% of trees dead or snags
3 = 10 to 39% of trees dead or snags
4 = 40 to 70% of trees dead or snags
5 = > 70% of trees dead or snags

**ELEV_BELT**

Source: Generated by Photo Interpreter
Name: Elevation Belt - Nonforested type
Description:

1 = Colline — Below Lower Timberline
2 = Lower Montane — Adjacent forest vegetation where applicable with PIPO or PSME and below subalpine forest type, e.g., ABLA2, PIEN, TSME, ABAM, and/or ABMA
3 = Upper Montaine — Adjacent forest vegetation where applicable with ABLA2, TSME, PIEN, ABAM, and/or ABMA and below continuous forest upper timberline
4 = Subalpine — Above upper timberline but with trees as islands or krummholz
5 = Alpine — Above upper timberline

**ELEVATION**

Source: Generated by Wenatchee FSL
Name: Elevation
Description: 90 meter DEM data was used to generate 1000 foot elevation bands. These bands were then turned into a polygon coverage and used to attribute each individual vegetation polygon. Even though several polygons fell in 2, 3, 4, or even 5 elevation bands, the polygon was labelled with the elevation band that it overlapped the most.

1 = 0-1,000 feet
2 = 1-2,000 feet
3 = 2-3,000 feet
4 = 3-4,000 feet
5 = 4-5,000 feet
6 = 5-6,000 feet
7 = 6-7,000 feet
8 = 7-8,000 feet
9 = 8-9,000 feet
10 = 9-10,000 feet
11 = 10-11,000 feet
12 = 11-12,000 feet
13 = 12-13,000 feet
14 = 13-14,000 feet
15 = 14-15,000 feet

**ASPECT**

Source: Generated by Wenatchee FSL
Name: Aspect

Description: 90 meter DEM data was used to generate 5 aspect classes. These 5 aspect classes were then converted into a polygon coverage and used to attribute each individual vegetation polygon. Even though most polygons fell into more than 1 aspect class, the polygon was labelled with the aspect class that it overlapped the most.

1 = 351 to 80 True North
2 = 81 to 170 True North
3 = 171 to 260 True North
4 = 261 to 350 True North
5 = No Aspect (Flat)

**SLOPE**

Source: Generated by Wenatchee FSL
Name: Slope
Description: 90 meter DEM data was used to generate 6 slope classes. These 6 slope classes were then converted into a polygon coverage and used to attribute each individual vegetation polygon. Even though most polygons fell into more than one slope polygon, the vegetation polygon was labelled with the aspect class that it overlapped the most.

1 = 0 to 12 percent slope
2 = 12 to 25 percent slope
3 = 25 to 40 percent slope
4 = 40 to 55 percent slope
5 = 55 to 75 percent slope
7 = greater than 75 percent slope

**ELEV_PCT**

Source: Generated by Wenatchee FSL
Name: Elevation Percent Overlap
Description: Percentage of the polygon that overlaps with the elevation band that it was assigned.

**ASPECT_PCT**

Source: Generated by Wenatchee FSL
Name: Elevation Percent Overlap
Description: Percentage of the polygon that overlaps with the aspect class that it was assigned.

**SLOPE_PCT**

Source: Generated by Wenatchee FSL
Name: Elevation Percent Overlap
Description: Percentage of the polygon that overlaps with the slope class that it was assigned.

**NON_FRST-SPP_OS**

Source: Recorded by the Photo Interpreter
Name: Nonforest Overstory Species
Description:

1 = Native bunchgrass (wild rye, bluebunch wheatgrass, Idaho fescue, alkali grass, bottlebrush, squirreltail, others)

2 = Annual grass (cheatgrass, medusahead)

3 = Seeded wheatgrasses (crested wheatgrass, other seeded dryland grasses)

4 = Exotic forbs (spotted knapweed, yellowstar thistle, leafy spurge, others)

5 = Native moist site herbs (sedges, rushes, moist site grasses, forbs, others)

6 = Low sagebrush (black sage, low sage, salt desert shrub, others)

7 = Low shrub alpine (mountain heathers)

8 = Big sagebrush/bitterbrush (basin big sage, Wyoming sage, mountain big sage, silver sage, bitterbrush, rabbitbrush, others)

9 = Mahogany (mountain and curlleaf mahoganies)

10 = Mountain Shrubs (serviceberry, rose, snowberry, mountain maple, Scouler's Willow, buffaloberry,

chokecherry, bittercherry, others)

11 = Wet site shrubs (willow, alder, bog birch, dogwood, others)

12 = Beargrass

13 = Herbaceous (A combination of options 1,2, and 4) used in Historic data (In batch 3) only as a last resort where option 6 or 8 could not be interpreted

14 = Shrubs (A combination of options 6 and 8) used in Historic data (In batch 3) only as a last resort where option 6 or 8 could not be interpreted

**NON_FRST-TCC**

Source: Recorded by the Photo Interpreter
Name: Overstory Canopy Cover Nonforest Types
Description: The Overstory Canopy Cover estimated to the nearest 1/3 cover for each nonforested polygon.

1 = < 33% canopy cover (Used only in Batch 1 and Batch 2)
2 = 33 to 66% canopy cover
3 = >66% canopy cover
4 = < 15% canopy cover (Batch 3 only)
5 = 16 - 33% canopy cover (Batch 3 only)

**NON_FRST-TCOV**

Source: Recorded by the Photo Interpreter
Name: Tree Cover-Grassland or Shrubland Types
Description: When the total tree crown closure is < 10% and **NON_FRST** is option 36 (shrubland) or 42 (grassland) this field will indicate whether or not the shrubland or grassland polygon has tree cover present.

1 = yes, tree cover is present on this nonforested polygon.
2 = no, tree cover is not present on this nonforested polygon.

**COVER**

Source: Generated by Wenatchee FSL
Name: Covertype
Description: SAF/SRM covertype classification based on site and species characteristics.

pipo Ponderosa Pine (PIPO), SAF 237
laoc Western Larch (LAOC), SAF 212
pico Lodgepole Pine (PICO), SAF 218
psme Interior Douglas-fir (PSME), SAF 210
abgr/abco Grand Fir or White Fir (ABGR or ABCO), SAF 211 & 213
abam Silver Fir (ABAM), SAF 226

| | |
|---|---|
| abla2/pien | Engelmann Spruce - subalpine fir (ABLA2/PIEN), SAF 206 |
| tshe/thpl | Western Hemlock and Western Redcedar (TSHE/THPL), SAF 224,227, 228 |
| tsme | Mountain Hemlock (TSME), SAF 205 |
| pial/laly | Whitebark pine & Subalpine larch(PIAL & LALY), SAF 208 |
| pila/pimo | Western White Pine & Sugar Pine(PILA & PIMO), SAF 215 (ID, MT, WA only) |
| aspen/cottonwood-wil | Hardwood, SAF 217 (aspen), 222, 235 (cottonwood-willow), 233 (Oregon whiteoak) |
| juoc/jusc | Western Juniper and Rocky Mt. Juniper (JUOC & JUSC); SAF 238 (JUOC),220 (JUSC) |
| abma | Red Fir (ABMA, ABMAS), SAF 207 |
| pifl | Limber Pine (PIFL), SAF 219 |
| pimo2/jusc | Singleleaf Pinyon Pine (PIMO2), Juniper, SAF 239 |
| pimo2 | Singleleaf Pinyon Pine (PIMO2) |
| russian olive | Russian Olive |
| rock | Rock |
| water | Water |
| wet meadow/marsh | Wet meadow, marsh |
| alpine meadow | Alpine meadow |
| dry meadow/grassland | Dry meadow, grassland |
| shrubland | Shrubland |
| bg/roadcut | Bareground (roadcuts or sidecast adjacent to hwys) |
| bare gound | Bare ground |
| pl-bg/burned | Post logging- bare ground, burned |
| pl-bg/slumps & ero | Post logging - bare ground, slumps and erosion |
| pl-grass/forb stag | Post logging - grass/forb stage |
| stream/floodplain | Stream channel and nonvegetated floodplain |
| pf-grass/forb | Post fire grasses/forbs |
| sand dune | Sand dune |
| glacier | Glacier |
| cropland | Cropland |
| urban/rural | Urban/rural |
| pasture | Pasture |
| grassland | Grassland |
| woodland | Woodland |
| non_frst1_1 | Colline bunchgrass (AGSP, FEID inpart) |
| non_frst1_2 | Montane bunchgrass (FEID mostly) |
| non_frst1_3 | Subalpine & alpine bunchgrass (FEID in part, FEOV, FEVI) |
| non_frst2_1 | Colline exotic grasses and forbs |
| non_frst2_2 | Montane exotic grasses and forbs |
| non_frst2_3 | Subalpine and alpine exotic grasses and forbs |
| non_frst3_1 | Colline moist herbaceous |
| non_frst3_2 | Montane moist herbaceous |
| non_frst3_3 | Subalpine and alpine moist herbaceous |
| non_frst4_1 | Colline low-med. shrublands (sagebrush, spp., greasewood) |
| non_frst4_2 | Montane low-medium shrublands (dry sagebrush spp. and bitterbrush) |
| non_frst4_3 | Subalpine & alpine low-med. shrubland (mountain heaths) |
| non_frst5_1 | Colline Mahogany |
| non_frst5_2 | Montane Mahogany |
| non_frst5_3 | Subalpine and alpine Mahogany |
| non_frst6_1 | Colline tall shrub |
| non_frst6_2 | Montane tall shrub |
| non_frst7_1 | Colline wet shrub |
| non_frst7_2 | Montane wet shrub |
| non_frst7_3 | Subalpine and alpine wet shrub |
| non_frst8_2 | Montane beargrass (Xerophyllum tenax) |
| non_frst8_3 | Subalpine beargrass (Xerophyllum tenax) |

**SERIES**

Source: Generated by Missoula Fire Lab & Wenatchee FSL

Name: Series

Description: Potential natural vegetation type based on physiographic setting, as well as current and historic vegetation types.

**Forested Series Codes**

| | |
|---|---|
| wd-psme/abgr/abco | Warm/dry - Douglas-fir/Grand fir/White fir |
| cm-psme/abgr/abco | Cool/moist - Douglas-fir/Grand fir/White fir |
| wd-abla2/pien | Warm/dry - Spruce-fir |
| cm-abla2/pien | Cool moist - Spruce-fir |
| hc-abla2/pien | Harsh/cold - Spruce-fir |
| wd-potr | Warm/dry - Aspen |
| cm-potr | Cool/moist-Aspen |
| wd-tshe/thpl | Warm/dry - Cedar-Hemlock |
| cm-tshe/thpl | Cool/moist - Cedar-Hemlock |

| | |
|---|---|
| potr2 | Cottonwood |
| pial/laly | Whitebark pine/Subalpine larch |
| pipo | Ponderosa pine |
| juoc/jusc | Juniper |
| quga | White oak |
| tsme | Mountain Hemlock |
| pico | Lodgepole pine |
| abam | Silver fir |
| abma | Red fir |
| pifl | Limber pine |
| acgl | Maple |

**Non-forested Series Codes**

| | |
|---|---|
| agst | agropyron steppe |
| putr | purshia tridentata |
| bsbw | basin big sage/wildrye |
| lsme | low sage mesic |
| lsmj | low sage mesic w/juniper |
| lsxe | low sage xeric |
| lsxj | low sage xeric w/juniper |
| wbsa | Wyoming big sage warm |
| wbsc | Wyoming big sage cool |
| ctrv | cottonwood riverine |
| fesc | fescue grassland |
| bsme | mountain big sage mesic east > 20 (slope) |
| bsmc | mountain big sage mesic east w/conifer encroac |
| bsmw | mountain big sage mesic west |
| bsmj | mountain big sage mesic west with juniper |
| sarp | salt brush riparian |
| sdsh | salt desert shrub |
| ttsa | three tip sage |
| salx | Salix/Carex |
| cew1 | ce le woodland without Art Rva |
| cew2 | ce le woodland with Art Rva |
| mtsh | mountain shrub |
| rigr | riparian graminoid |
| bsml | mountain big sage mesic east < 20 (slope) |
| ircr | irrigated cropland |
| drcr | dry crop |
| mrls | mountain riparian low shrub |
| mrsd | riparian sedge (no salix) |
| ahls | alpine herbland/low shrub |
| fes2 | fescue with conifer encroachment |
| ags2 | agropyron steppe with conifer encroachment |
| rock | Rock |
| water | Water |
| dune | Sand Dune |
| glacr | glacier |
| urban | urban |

**SERIES-CODE**

Source: Generated by Missoula Fire Lab & Wenatchee FSL

Name: Series-code

Description: Same as 'series' item (above). Represented here with a numeric code. As currently defined, the series-code label contains 2 parts:

- Potential vegetation class
- Habitat modifier (warm-dry, cool-moist, etc.)

**Potential Vegetation Class**

| Code | Forested Series Group |
|---|---|
| 1100 | ABAM |
| 1200 | ABLA2/PIEN |
| 1300 | ABMA |
| 1400 | JUOC/JUSC |
| 1500 | PICO |
| 1600 | PIFL |
| 1700 | PIPO |
| 1800 | POTR |
| 1900 | POTR2 |
| 2000 | PSME/ABGR/ABCO |
| 2100 | QUGA |
| 2200 | TSHE/THPL |
| 2300 | TSME |
| 2400 | ACGL |
| 2500 | PIAL |

| Code | Non-forested Series Group |
|---|---|
| 1000 | Non-forest |
| 5000 | AGST |
| 5100 | FESC |
| 5200 | MRSD |
| 5300 | RIGR |
| 5400 | SALX |
| 5500 | IRCR |
| 5600 | DRCR |
| 5700 | MRLS |
| 5800 | SDSH |
| 5900 | SARP |
| 6000 | MTSH |
| 6100 | CEW1 |
| 6200 | CEW2 |
| 6300 | BSBW |
| 6400 | LSME |
| 6500 | LSMJ |
| 6600 | LSXE |
| 6700 | LSXJ |
| 6800 | PUTR |
| 6900 | LSML |
| 7000 | BSME |
| 7100 | BSMC |
| 7200 | BSMW |
| 7300 | BSMJ |
| 7400 | TTSA |
| 7500 | WBSA |
| 7600 | WBSC |
| 7700 | URBAN |
| 7800 | AHLS |
| 7900 | AGS2 |
| 8000 | FES2 |
| 9000 | WATER |
| 9100 | ROCK |
| 9200 | DUNE |
| 9300 | GLACR |

**Habitat Modifier**

| WET/DRY Code | Description |
|---|---|
| 10 | None assigned |
| 20 | Warm-dry |
| 30 | Cool-moist |
| 40 | Harsh-cold (short, cold growing season) |

**STRUCTURE**

Source: Generated by Wenatchee FSL
Name: Structure
Description: The structural stage of the current covertype. As developed by Hessburg/Smith 1994.

| | | |
|---|---|---|
| si | = | Stand Initiation |
| seoc | = | Stem Exclusion, Open Canopy |
| secc | = | Stem Exclusion, Closed Canopy |
| ur | = | Understory Reinitiation |
| yfms | = | Young Forest, Multi-Strata |
| ofms | = | Old Forest, Multi-Strata |
| ofss | = | Old Forest, Single Strata |
| oh | = | Open Herbland |
| ch | = | Closed Herbland |
| cts | = | Closed Tall Shrub |
| ols | = | Open Low-medium Shrub |
| cls | = | Closed Low-medium Shrub |
| ots | = | Open Tall Shrub |
| cts | = | Closed Tall Shrub |
| nf | = | Rock, Water, Wet meadow/marsh, Alpine meadow, Dry meadow/grassland, Shrubland, Post logging bare ground - burned, Post logging bare ground - slumps and erosion, Post logging - grass/forb stage, Cropland, Urban/rural, Pasture, Grassland, Woodland. |
| w_si | = | Woodland Stand Initiation |
| w_se | = | Woodland Stem Exclusion |
| w_ur | = | Woodland Understory Reinitiation |
| w_yms | = | Young Multistory Woodland |
| w_oms | = | Old Multistory Woodland |
| w_oss | = | Old Single Woodland |

**STRUCTURE_2**

Source: Generated by Wenatchee FSL
Name: Structure_2
Description: The structural stage of the current covertype. Method of classification developed by Latham et al. See dichotomous key in Appendix A for classification rules.

| | | |
|---|---|---|
| si | = | Stand Initiation |
| seoc | = | Stem Exclusion, Open Canopy |
| secc | = | Stem Exclusion, Closed Canopy |
| ur | = | Understory Reinitiation |
| yfms | = | Young Forest, Multi-Strata |
| ofms | = | Old Forest, Multi-Strata |
| ofss | = | Old Forest, Single Strata |
| oh | = | Open Herbland |
| ch | = | Closed Herbland |

| | | |
|---|---|---|
| cts | = | Closed Tall Shrub |
| ols | = | Open Low-medium Shrub |
| cls | = | Closed Low-medium Shrub |
| ots | = | Open Tall Shrub |
| cts | = | Closed Tall Shrub |
| nf | = | Rock, Water, Wet meadow/marsh, Alpine meadow, Dry meadow/grassland, Shrubland, Post logging bare ground - burned, Post logging bare ground - slumps and erosion, Post logging - grass/forb stage, Cropland, Urban/rural, Pasture, Grassland, Woodland. |
| w_si | = | Woodland Stand Initiation |
| w_se | = | Woodland Stem Exclusion |
| w_ur | = | Woodland Understory Reinitiation |
| w_yms | = | Young Multistory Woodland |
| w_oms | = | Old Multistory Woodland |
| w_oss | = | Old Single Stratum Woodland |

**INSECT and DISEASE ITEMS**

The following is a list of item descriptions for insects and pathogens. Because many item descriptions are the same for most or all individual insects and pathogens, the word 'BUG' is used in place of the 3-4 letter code used for each insect/pathogen. All items do not always apply to all insects/pathogens. For instance, stand vigor may be useful for calculating hazard for Western spruce budworm, but not for Douglas Fir Beetle. For information on specific criteria used to derive item values, please refer to *Assessing change in watershed susceptibility to major forest insect and pathogen disturbances: methods for forested subwatersheds sampled in the Interior Columbia River Basin Assessment* (Hessburg et. al.).

| List of Common and Scientific Names and Abbreviations for Insect and Disease items | | |
|---|---|---|
| **Common Name** | **Abbreviation** | **Scientific Name** |
| annosum root disease | HEAN | *Heterobasidion annosum* (Fr.) Bref. |

| | | |
|---|---|---|
| Armillaria root disease | AROS | *Armillaria ostoyae* (Romag.) Herink |
| Douglas-fir tussock moth | DFTM | *Orgyia pseudotsugata* McDunnough |
| Douglas-fir beetle | DFB | *Dendroctonus pseudotsugae* Hopkins |
| Douglas-fir dwarf mistletoe | DFDM | *Arceuthobium douglasii* Engelm. |
| fir engraver | FE | *Scolytus ventralis* LeConte |
| laminated root rot | PHWE | *Phellinus weirii* Murr. Gilb. |
| limber pine | PIFL | *Pinus flexilis* James |
| lodgepole pine dwarf mistletoe | LPDM | *Arceuthobium americanum* Nutt. ex Engelm. |
| mountain pine beetle | MPB | *Dendroctonus ponderosae* Hopkins |
| P-group annosum root disease | $HEAN_p$ | *Heterobasidion annosum* (Fr.) Bref. |
| rust-red stringy rot | RRSR | *Echinodontium tinctorium* (Ell. & Ev.) Ell. & Ev. |
| Schweinitzii root and butt rot | SRBR | *Phaeolus schweinitzii* (Fr.) Pat. |
| S-group annosum root disease | $HEAN_s$ | *Heterobasidion annosum* (Fr.) Bref. |
| spruce beetle | SB | *Dendroctonus rufipennis* Kirby |
| Tomentosus root and butt rot | TRBR | *Inonotus tomentosus* (Fr.) Gilbertson |
| western spruce budworm | WSB | *Choristoneura occidentalis* Freeman |
| western larch dwarf mistletoe | WLDM | *Arceuthobium laricis* (Piper) St. John |
| western dwarf mistletoe | PPDM | *Arceuthobium campylopodum* Engelm. |
| western pine beetle | WPB | *Dendroctonus brevicomis* LeConte |
| white pine blister rust | WPBR | *Cronartium ribicola* Fischer ex. Rabh. |

BUG_SQ Source: Generated by Wenatchee FSL
Name: Insect/pathogen site quality
Description: Site quality estimated using potential vegetation type.

1 = low
2 = moderate
3 = high

BUG_HA Source: Generated by Wenatchee FSL
Name: Insect/Pathogen host abundance.
Description: Host abundance estimated using host crown closure.

1 = low
2 = moderate

3 = high

BUG_SD
Source: Generated by Wenatchee FSL
Name: Insect/Pathogen stand density
Description: Stand density estimated using total crown closure.

1 = low
2 = moderate
3 = high

BUG_CS
Source: Generated by Wenatchee FSL
Name: Insect/Pathogen canopy structure
Description: Canopy structure estimated using number of canopy layers in host species.

1 = low
2 = moderate
3 = high

BUG_AGE
Source: Generated by Wenatchee FSL
Name: Insect/Pathogen host age
Description: Host age estimated using overstory and understory size class.

1 = low
2 = moderate
3 = high

BUG_VIG
Source: Generated by Wenatchee FSL
Name: Insect/Pathogen stand vigor
Description: Stand vigor estimated using degree of overstory crown differentiation.

1 = low
2 = moderate
3 = high

BUG_CONT
Source: Generated by Wenatchee FSL
Name: Insect/Pathogen continuity of host types.
Description: Continuity estimated using host-host transition frequencies of rasterized data.

1 = low
2 = moderate
3 = high

BUG_TS
Source: Generated by Wenatchee FSL
Name: Insect/Pathogen topographic setting
Description: Topographic setting estimated using riparian/wetland status.

1 = low
3 = high

BUG_DH
Source: Generated by Wenatchee FSL
Name: Insect/Pathogen disturbance history
Description: Disturbance history estimated using visible logging entry.

1 = low
2 = moderate
3 = high

BUG_HS
Source: Generated by Wenatchee FSL
Name: Insect/Pathogen host size
Description: Host size estimated using overstory and understory size classes.

1 = low
2 = moderate
3 = high

BUG_HAZ
Source: Generated by Wenatchee FSL
Name: Insect/Pathogen susceptibility class
Description: Susceptibility based on sum of all applicable susceptibility variables

1 = low
2 = moderate
3 = high

The following is a list of item descriptions for fire variables. Refer to *Assessing change in fire hazard and smoke production: methods for the midscale subwatersheds sampled in the Interior Columbia River Basin* (Ottmar and Alvarado et.al. 1995) for methodology. Items followed by 'W, D, N' indicate a total of three items where 'W' = wet, 'D' = dry, and 'N' = normal conditions. Thus, the description 'CONS_(W,D,N)' is a single definition for three unique items, 'CONS_W', 'CONS_D' and 'CONS_N'.

CONS_(W,D,N)
Source: Generated by Seattle Fire Lab
Name: Fuel consumption (wet, dry, or normal conditions)
Description:

1 = very low
2 = low
3 = moderate
4 = high
5 = very high

INT_(W,D,N)
Source: Generated by Seattle Fire Lab
Name: Fire line intensity (wet, dry, or normal conditions)
Description:

1 = very low
2 = low
3 = moderate
4 = high
5 = very high

FLAME_(W,D,N)
Source: Generated by Seattle Fire Lab
Name: Flame length (wet, dry, or normal conditions)
Description:

1 = very low
2 = low
3 = moderate
4 = high
5 = very high

RATE_(W,D,N)

Source: Generated by Seattle Fire Lab
Name: Fire rate of spread (wet, dry, or normal conditions)
Description:

1 = very low
2 = low
3 = moderate
4 = high
5 = very high

RCF_(W,D,N)

Source: Generated by Seattle Fire Lab
Name: Risk of crown fire (wet, dry, or normal conditions)
Description:

1 = none
2 = very low
3 = low
4 = moderate
5 = high
6 = very high
7 = severe
8 = extreme

SMOKE_(W,D,N)

Source: Generated by Seattle Fire Lab
Name: Smoke emissions (wet, dry, or normal conditions)
Description:

1 = none
2 = very low
3 = low
4 = moderate
5 = high
6 = very high
7 = severe
8 = extreme

FUEL

Source: Generated by Seattle Fire Lab
Name: Fuel loading
Description:

1 = very low
2 = low
3 = moderate
4 = high
5 = very high

Appendix A.

Forest Structural Classification Dichotomous Key
by Latham, Brewer, O'Hara, Hessburg, Miller

Note: This key is a draft based on hypothesized definitions and size class distributions for structural classes. It may work for all cover types, but more than likely it will not. Individual cover types are expected to vary not only in their development pathways, but in the quantification of cover within size classes. Separate keys will probably need to be developed for EACH cover type.

A1. large tree cover $ 30% — OF

B1. seedlings/saplings, poles, small, or medium trees in any one size class or combination of size classes > 20% cover — OFMS

B2. seedlings/saplings, poles, small, or medium trees in any one size class or combination of size classes # 20% cover — OFSS

A2. large tree cover < 30% — Go to C
[Note: cover classes are in increments of 10%, therefore this size class actually refers to large tree cover # 20%]

C1. seedling/sapling cover < 10% — SE

D1. pole, small, and medium tree cover > 70% — SECC

D2. pole, small, and medium tree cover # 70% — SEOC

C2. seedling/sapling cover $ 10% — Go to E

E1. pole, small, and medium tree cover > 60% — UR

E2. pole, small, and medium tree cover # 60% — Go to F

F1. pole, small, and medium tree cover $ 20% — Go to G

F2. pole, small, and medium tree cover < 20% — SI

G1. small or medium tree cover $ 10% — YFMS

G2. small and medium tree cover < 10% — SI