Forest-wide Direction (Components): Revision Collaborative Input:
~~Forested Vegetation~~Terrestrial Resources

Forested Vegetation and Wildlife Plan components have been integrated into one document.

ie Terrestrial Plan Components

~~Vegetation~~

Wildlife habitat is determined by vegetation composition. Wildlife habitat/~~V~~vegetation reflect~~s~~ native forest diversity as described below for forest vegetation composition, size classes, densities, and patterns that would be present if landscape system drivers (fire, insects and pathogens are the primary agents) were fully functioning. The forest is resilient in the face of changing climate conditions. Species, densities, size classes, and vegetation patterns are represented in their biophysical settings described below, at the levels that promote system health and resilience. Desired conditions for wildlife habitat and vegetation are included below.

Forest Wide Desired Conditions

The amount, distribution, composition, and structure of vegetation ~~as defined in sections XXX~~ (~~vegetation~~upland, riparian, and grassland/shrub) and forest patch sizes provide the habitat necessary to support native and desired nonnative wildlife species.

Species across the forest are represented by dominance types. Densities are described by trees per acre and basal area per acre. Size classes are measured by a range of diameter classes – early seral non-forest, trees 0" to 5", 5" to 15", 15" to 20", and 20" and greater. Some acres of the larger size classes will qualify as old growth as defined in "North Idaho Old Growth" by Green et al. 1992 errata corrected 2011.

On lands not suitable for timber production (3.4 million acres) old growth as defined in Green et al. 1992 errata corrected 2011, is found at levels consistent with and sustained by natural processes.

On lands suitable for timber production, (approximately 600,000 acres) old growth is found primarily in the interfingered lands that are not suitable, such as, but not limited to, riparian areas and landslide-prone lands. Consistent with the disturbance regimes on those

lands, additional areas of old growth occur, and may persist for decades. Old growth on these lands is more transient than on lands not suitable for timber production, and will come and go across the landscape.

Desired Conditions by Biophysical Setting:

Breaklands:

Idaho Batholith:

On southerly aspects, stands of ponderosa pine and Douglas-fir are most common with lesser amounts of grand fir. Grand fir or subalpine fir may occur on lower slopes and along streams. Western redcedar may occur on more moist sites in the Middle Fork Clearwater or Selway River drainages. Grasses, forbs, or shrubs form the understory.

On northerly aspects, stands of Douglas-fir, western larch, and grand fir types are most common, with inclusions of ponderosa pine on ridgetops. Colder sites may include lodgepole pine. Western redcedar may occur on mesic sites as on the southerly aspects. Understory vegetation is often composed of tall mesic shrubs, or may be very sparse under dense forest canopies.

After disturbance, these sites may be grass or shrub dominance types for decades. Desired dominance types are summarized in Table xxx

Table xxx Desired Dominance Types: Breaklands

Dominance Type	Desired Range
Ponderosa Pine/Mix	21% to 41%
Douglas-Fir	19% to 37%
Lodgepole Pine	3% to 7%
Western Larch/Douglas-Fir	3% to 7%

Grand Fir/Western Redcedar	11% to 21%
Subalpine Fir/Spruce Mix	2% to 4%
Seral Grass/Shrub	8% to 16%
Non-Forest	16%

On southerly aspects the forest is one- or two-storied. Younger trees occur as even-aged groups interspersed among the long-lived, shade-intolerant species. Disturbances promote an open canopy of large old trees. Open canopies encourage a rich understory of grasses, forbs, and shrubs. Large trees, over 20 inches in diameter, are common on these southerly slopes.

Northerly aspects tend to have complex stand structures with even-aged patches interspersed among two- to multi-storied forests. Forests are made up of Douglas-fir and grand fir, and western larch is found here too. Ponderosa pine is less common than on southerly aspects. This reflects the mixed severity fire regime that was most common on these sites. Large old trees tend to be found on upper slopes, ridgelines or in riparian areas. Those on the ridgelines are generally ponderosa pine or western larch, while the riparian forests are more often grand fir, spruce or western redcedar. Old growth forests may be found on ridges, upper slopes, and in riparian areas. Moist sites in the Selway/Middle Fork Clearwater drainages may also have old growth forests on cedar sites on lower slopes along streams. The desired size class distribution is summarized in Table yyy

Table yyy Desired Size Distribution: Breaklands

Size Class	Desired Range6
Non-Forest	16%
Seral Grass/ Shrub	6% to 15%

0" to 5"	3% to 7%
5" to 15"	25% to 49%
15" to 20"	10% to 20%
20" plus	11% to 23%

A portion of this large tree size class meets the description of old growth as described in "North Idaho Old Growth", (Green et al. 1992, errata corrected 2011). On southerly aspects, these forests of large trees (20 inches and greater in diameter) are typically ponderosa pine with some Douglas-fir and grand fir, often found on midslopes and ridges. On northerly aspects, the old growth is often found in riparian areas, or as two-storied stands with legacy trees outside of riparian areas.

On south aspects these stands are open (typically 25 to 100 mature trees per acre), with basal areas at maturity of 80 to 150 square feet per acre. On northerly aspects, stand densities are generally higher: 75 to 125 mature trees per acre, with basal areas of 100 to 200 square feet per acre.

On southerly aspects large (over 20" diameter) soft snags are uncommon. Northerly aspects have a more dynamic snag system, with longer intervals between high levels of snags. The complex stand structures lead to a wide size range of snags. Larger sizes of snags and down wood are preferred, if available, for longer persistence in the soil and enhanced wildlife habitat. Recommended numbers of snags are 1 to 3 per acre over 20 inches in diameter, and 7 to 15 in the 10" to 20" size classes. Arrangement may vary from individual trees to groups. On southerly aspects, new snags are created every 10 to 25 years. On northerly aspects, snags numbers vary widely over time with the stand replacing disturbance regime. Riparian habitats support the greatest density of large snags. Dead wood on the forest floor is described in the soils section.

On southerly aspects, low severity disturbances occur every 5 to 50 years, reducing trees per acre and retaining the larger trees. Steep slopes and narrow riparian habitats result in a disturbance interval in riparian and moist habitat inclusions that rarely exceeds 150 years. On northerly aspects, a mix of lethal and mixed-severity disturbances occurs every 40 to 160 years, with stand-replacing disturbances occurring every 120 to 160 years. Following stand replacement on northerly aspects, the forest is generally made up of large patches of even-aged stands, that gradually develop a mixed composition and age class as mixed-severity disturbances affect portions of the larger patch. Stand-replacing disturbance boundaries generally follow topographic breaks such as draws, ridges and changes in aspect.

Insects and disease, western pine beetles including mountain pine beetle, Douglas-fir beetle, *Scolytus* beetle and *Armillaria, Annosus,* and *Phellinus* root rots are at light to moderate endemic levels in the landscape, causing sporadic mortality in overstory trees. If anticipated climate change develops as projected, these system drivers are expected to increase in extent and effect.

Bitterroot Mountains:

On southerly aspects, stands of Douglas-fir, grand fir, western larch, western white pine, and ponderosa pine dominance types are the most prevalent. Grand fir and western redcedar are often found on lower slopes along stream channels.

On north aspects, Douglas-fir, grand fir, western larch, and western white pine are the most common dominance types. They tend to occur in even-aged stands, often with large-diameter legacy trees, in patches that follow topographic breaks. Following stand replacement on northerly aspects, the forest is generally made up of large patches of even-aged stands, which gradually develop a mixed composition and age class as mixed-severity disturbances affect portions of the larger patch. Stand-replacing disturbance boundaries generally follow topographic breaks such as draws, ridges and changes in aspect.

Cedar and western white pine tend to be limited to deeper soils (any aspect) and moist draws (southerly aspects). Seral hardwood trees, such as birch and tall shrubs, are also a distinctive type that establishes after fires and may be maintained by lack of tree seed source or root rots. Grand fir and western redcedar are the shade-tolerant species that may establish immediately after disturbance but will always fill in under the forest canopy over time. Mature western redcedar or western hemlock, though not common, may be found on lower slopes and in riparian habitats. The desired range of species composition is found in Table zzz.

Table zzz Desired Dominance Types: Bitterroot Mountains Breaklands

Dominance Type	Desired Range
Ponderosa Pine/Mix	9% to 19%
Douglas-Fir	14% to 22%
Lodgepole Pine	0% to 0%
Western Larch/Douglas-Fir	13% to 20%
Cedar/Grand Fir	9% to 17%
White Pine	10% to 25%
Spruce/Fir Mix	0% to 0%
Seral Grass/Shrub	8% to 15%
Non-Forest	10%

On southerly aspects, young forests are commonly found as small (less than 10 acres), even-aged patches within a large forest patch that covers an entire hillside. The overall stand structure is often a large patch size of two-storied or uneven-aged forest, with the smaller patches of young forest embedded within.

On northerly aspects, forests tend to be even-aged after stand-replacing disturbances. Forests that start out even-aged usually develop several age classes due to small, low to mixed severity disturbances. Isolated large, live trees (greater than 20 inches in diameter, and often greater than 30 inches) are expected to occur on ridges (western larch or ponderosa pine) and in riparian conservation areas (usually grand fir or western redcedar) at an average density of 2 to 5 per acre (ranging from 0 to covering 20% of the acreage), and persist indefinitely.

The large (20 inches and over) size class makes up 17 to 33 percent of the landscape. These are most often found on ridgelines or in riparian areas. Mature forests on the breaklands are composed of ponderosa pine, western larch and grand fir dominance types on the ridges and side slopes. On lower slopes and riparian areas, these are often grand fir or western redcedar dominance types. Desired size class distribution is found in Table aaaa

Table aaaa Desired Size Distribution: Bitterroot Mountains Breaklands

Size Class	Desired Range
Non-Forest	10%
Seral Grass/Shrub	8% to 17%
0" to 5"	6% to 13%
5" to 15"	17% to 36%
15" to 20"	16% to 33%
20" and greater	17% to 33%

A portion of this large tree size class meets the description of old growth as described in "North Idaho Old Growth", (Green et al. 1992, errata corrected 2011). Old growth on southerly aspects can be old ponderosa pine on hillsides, or could be mixed conifer or grand fir and cedar in riparian areas. On northerly aspects, the old growth is often found in riparian areas, or as two-storied stands with legacy trees outside of riparian areas.

On northerly aspects, young stands may be dense, with over 1000 stems per acre, or may be widely spaced (100 to 200 trees per acre) under a hardwood canopy. Dense stands rapidly decrease in density as the canopy closes and trees compete for available moisture. Southerly aspects, especially those with shallow soils, are slower to regenerate to forest cover, have fewer trees per acre and may support a tall shrub layer for several decades. Typical densities within the large size class are 45 to 100 large trees per acre.

Snag numbers on southerly aspects range from .2 to 1 per acre over 20 inches diameter, and 1.5 to 8 per acre that are 10 to 20 inches in diameter. Northerly aspects have 2 to 5 snags per acre over 20 inches in diameter, and 10 to 20 in the 10 inch to 20 inch diameter

classes. New snags are recruited frequently through insects, disease or low-severity fires. A few large, standing ("legacy" or "relict") live trees per acre – one to three per acre, ranging from 0 to 20% of the acreage – typically persist following stand-replacing events. Riparian conservation areas support the greatest density of large snags and down wood. The desired levels of down wood are shown in the soils section. Larger diameters are desired, if available, for persistent and more effective wildlife habitat.

Disturbances tend to reduce Douglas-fir, grand fir and cedar, result in more open stand conditions (fewer trees per acre than before the disturbance), and favor retaining larger trees. Intermediate or mixed severity disturbances are 3 to 5 times more common than the stand replacing disturbances. Typically, mixed-severity disturbances occur every 40 to 180 years, and stand-replacing fires occur every 100 to 300+ years. Mixed severity disturbances reduce the number of trees per acre, favor shade-intolerant species, reduce canopy layers, and create openings in the stand.

Insects and disease are at low to moderate endemic levels in the landscape. If anticipated climate change develops as projected, these system drivers are expected to increase in extent and effect.

Patches sizes on north aspects are generally even-aged forests with legacy trees that range up to XXX (to be determined through SIMPPLLE modeling) acres and generally have their borders on topographic breaks such as ridges, draws or changes in aspect. Patches on southerly aspects tend to be uneven-aged and smaller, up to XXX (to be determined through SIMPPLLE modeling) acres.

Uplands:

Idaho Batholith

Douglas-fir, western larch, ponderosa pine, and lodgepole pine often form the majority of the seedlings that establish after disturbance. Colder, drier sites are likely to have nearly pure lodgepole pine stands or Engelmann spruce and subalpine fir; warmer or moister sites are usually a mix of species including western larch, Douglas-fir, and ponderosa pine. Shrubs are prolific and diverse on these sites, and may dominate the site for 30 or more years after disturbance. Ponderosa pine is less common than on breaklands, but is long-lived, and often an influential part of the stand. Grand fir is often the most common species. Grand fir and Engelmann spruce predominate on grand fir mosaic sites. Riparian habitats are often characterized by mature grand fir, western redcedar, or spruce. Desired dominance types are summarized in bbbb.

Table bbbb. Desired Dominance Types: Uplands

Dominance Type	Desired Range
Ponderosa Pine/Mixed	11% to 23%
Douglas-fir	11% to 23%
Lodgepole Pine	15% to 29%
Western Larch/Douglas-fir	3% to 7%
Grand Fir/Western Redcedar	21% to 41%
Subalpine fir/Spruce Mix	2% to 4%
Seral Grass/Shrub	3% to 7%
Non-Forest	4%

The forest is commonly even-aged or two-aged and often has grand fir mixed with the shade-intolerant species. As forests grow after stand-replacing disturbance, they begin to develop additional age classes due to low- or mixed-severity disturbances. For the largest size class, the typical forest character is 5 to 25 large, old ponderosa pine, Douglas-fir, or western larch trees per acre with a mix of small to large-sized grand fir. The large size class is most widespread and persistent in riparian areas and adjacent uplands. Overall, desired size class distributions are summarized in Table cccc.

Table cccc Desired Size Distribution: Uplands

Size Class	Desired Range
Non-Forest	4%
Seral Grass/Shrub	3% to 7%
0" to 5"	6% to 13%
5" to 15"	21% to 41%
15" to 20"	18% to 36%
20" and greater	18% to 36%

A portion of this large tree size class meets the description of old growth as described in "North Idaho Old Growth", (Green et al. 1992, errata corrected 2011). The typical old growth forest character is dominated by large, old grand fir. Because the uneven terrain encourages low- and mixed-severity wildfires, old forest patches historically have been uneven-aged, shade-tolerant species residing in patches exceeding 300 acres. Smaller patches of old forest occur as "inclusions" where topography or microsites are sheltered from frequent fires.

These stands are generally well-stocked except in the grand fir mosaic. Density varies as small openings develop in the stands over time. Typical basal areas at maturity are 150 to 200 square feet per acre. In the grand fir mosaic, densities in older stands are typically 100 to 200 square feet of basal area per acre.

Recommended numbers of snags are 2 to 4 per acre over 20 inches in diameter, and an additional 10 to 24 per acre that are 10 to 20 inches in diameter. These may be grouped in clumps, or found as individuals. Riparian habitats support the greatest density of large snags and down wood. Large, dead wood desired conditions are found in the soils section. Larger material, if available, is preferred for long-term soil maintenance and greater value as wildlife habitat.

Mixed-severity disturbance occurs every 30 to 50 years, reducing stand density, removing smaller trees, and making openings in the canopy. At 120 to 200 years, stand replacement occurs, typically leaving about 20% of the overall canopy, mostly in riparian areas and isolated upland patches.

Root diseases, Douglas-fir beetle, western spruce budworm and mountain pine beetle are the most common insects and pathogens. Most of the time they act to move the forest toward climax stand conditions and maintain more open stands. Insects and disease should be at moderate endemic levels in the landscape. If anticipated climate change develops as projected, these system drivers are expected to increase in extent and effect.

Douglas-fir is only moderately long-lived on these sites due to root rot susceptibility. On more moist sites, it is often gone from the stand by 80 years after stand-replacing disturbance. On the drier end, it may persist for over 150 years.

Lodgepole pine is perpetuated by stand-replacing disturbances about every 100 to 150 years.

Bitterroot Mountains:

Dominance types are primarily western redcedar, grand fir, Douglas-fir, western larch and western white pine. Ponderosa pine and lodgepole pine are less common seral species; ponderosa pine on southerly aspects and ridges, lodgepole on cooler sites. Riparian habitats are often mature western redcedar or grand fir dominance types. Western hemlock also occurs on the Palouse Ranger District and in portions of the North Fork Clearwater drainage. The grand fir mosaic forests are almost pure grand fir or subalpine fir with Engelmann spruce or western white pine. Desired species composition if found in Table dddd.

Table dddd Desired Dominance Types: Bitterroot Mountains Uplands

Dominance Type	Desired Range
Ponderosa Pine/Mixed	5% to 10%
Douglas-fir	5% to 15%
Lodgepole Pine	3% to 7%
Western Larch/Douglas-fir	7% to 15%
Cedar/Grand Fir	15% to 25%

White Pine	20% to 40%
Spruce Mix	1% to 1%
Seral Grass/Shrub	3% to 7%
Non-Forest	3%

Younger forests are commonly even-aged with legacy trees. Large, live trees (typically western white pine or western larch, occasionally ponderosa pine and Douglas-fir on the uplands; western redcedar and grand fir in riparian habitats) persist in groups or as individuals, typically 1 to 3 per acre but varying from 0 trees to 20% of the disturbance area, following stand replacement. These groups occur mostly as riparian stringers, individual trees are scattered across the hillside and on ridgelines. The typical old forest character is of two types. One is large old cedar and/or western hemlock with grand fir and scattered western larch, western white pine or ponderosa pine. The second is made up of large, old western white pine, western larch, and sometimes ponderosa pine. Old forests usually develop several age classes. The large size class, trees over 20 inches in diameter, should be about 18% to 36% of the landscape, and includes stands of old forest. Desired size class distribution is found in Table eeee.

Table eeee Desired Size Distribution: Bitterroot Mountains Uplands

Size Class	Desired Range
Non-Forest	3%
Seral Grass/Shrub	3% to 7%
0" to 5"	6% to 13%
5" to 15"	21% to 41%
15" to 20"	18% to 36%
20" and greater	18% to 36%

A portion of this large tree size class meets the description of old growth as described in "North Idaho Old Growth", (Green et al. 1992, errata corrected 2011). The typical old forest character is dominated by large, old grand fir or cedar, often associated with riparian areas. Because the uneven terrain encourages low- and mixed-severity wildfires, old forest patches historically have been uneven-aged, shade-tolerant species residing in patches exceeding 300 acres. Smaller patches of old forest occur as "inclusions" where topography and/or local factors locally shelter sites from frequent fires.

These sites are generally well stocked except in the grand fir mosaic. Young stands often have up to 600 to 1,000 trees per acre or may be widely spaced (100 to 200 trees per acre) under a hardwood canopy. Dense stands rapidly decrease in density as the canopy closes and trees compete for available moisture. Typical basal areas at maturity (160+ years) are 150 to 250 square feet per acre. Grand fir mosaic sites have much lower densities, down to about 1/2 of the typical density on non-mosaic sites.

Large, dead wood desired conditions are found in the soils section. Snag numbers range from 2 to 5 per acre over 20 inches diameter, and 11 to 21 per acre that are 10 to 20 inches in diameter. Snags are usually arranged in clumps of various sizes, with a few scattered individual snags. Riparian habitats, due to extremely long fire return intervals, can support the greatest density of large snags and down wood.

Low and mixed severity disturbances occur 2 to 3 times as often as stand replacing disturbances, which occur every 250 or more years apart. The mixed severity disturbances reduce numbers of trees per acre, create openings in the stand and favor shade-intolerant, fire-resistant species.

Douglas-fir is fairly short-lived on these sites due to root rot susceptibility. It is often gone from the stand 80 to 120 years after stand-replacing disturbance. Root disease, Douglas-fir beetle, mountain pine beetle, western spruce budworm and white pine blister rust are the most common insects and pathogens. Most of the time they act to move the forest toward climax stand conditions but they also effectively maintain more open stand conditions. Insects and disease are at low to moderate endemic levels in the landscape. If anticipated climate change develops as projected, these system drivers are expected to increase in extent and effect.

Landscape patches start as large expanses of single-storied or simple two-storied stands following stand-replacing events. As stands age, they develop increasing heterogeneity in species composition and size classes across the original disturbance area. Patch sizes range from 5 to 700 acres. The more frequent disturbances tend to be smaller in size, with stand-replacing disturbances tending toward the larger sizes.

Subalpine:

Idaho Batholith:

On more moderate sites within this setting, Douglas-fir, western larch and lodgepole pine often form the majority of the stocking after disturbance. Engelmann spruce, subalpine fir and grand fir, with inclusions of western redcedar, are the tolerant species that will become established in the understory, or in small openings where larger trees have died. Subalpine fir is the most common understory species. Colder, drier sites are likely to have nearly pure lodgepole pine stands; more moderate sites are usually a mix of species. Whitebark pine is common above 6500 feet, either as pure stands or mixed with other species. Riparian habitats are often dominated by mature spruce and subalpine fir. Shrubs are prolific and diverse on these sites, and may dominate for 30 years after disturbance. Table ffff summarizes the desired dominance types for the subalpine setting.

Table ffff. Desired Dominance Types: Subalpine

Dominance Type	Desired Range
Ponderosa Pine/Mixed	0% to 0%
Douglas-fir	4% to 7%
Lodgepole Pine	12% to 23%
Western Larch/Douglas-fir	3% to 6%
Grand Fir Mix	0% to 0%
Subalpine Fir/Spruce Mix	16% to 31%
Subalpine	13% to 27%

fir/Whitebark pine	
Seral Grass/Shrub	3% to 6%
Non-Forest	20%

On the more moderate sites young stands are commonly an even-aged mix of species, both shade tolerant and shade intolerant. There are often large old larch, Douglas-fir, subalpine fir and spruce found in small groups or as scattered individuals. Starting about 50 years after stand-replacing disturbance, forests begin to develop additional age classes. The younger trees under a canopy of older trees or in small openings are characteristically subalpine fir, Engelmann spruce or grand fir. The typical old forest character is large old spruce and subalpine fir with larger, older western larch, Douglas-fir or lodgepole pine, and is often multi-storied. It is most persistent in riparian areas but may also be found on slopes and ridges.

On the colder and drier sites, forest structure is quite patchy, with openings and a mix of size classes. This develops due to slow reforestation after disturbance on these harsh sites as well as econtinuing low-level disturbance.

As stands develop, mixed severity disturbances occur, creating variable-sized gaps. As young stands age, they develop gaps up to a few acres in size. The result is increasing heterogeneity in species composition and size classes over time. Two or more canopy layers are common, and provide snowshoe hare and lynx habitat in spruce-fir types. These diverse stands are the most common structure on the landscape. Streams and wet areas are important factors that often remain forested when surrounding forests have stand-replacing disturbance.

Desired size class distribution is summarized in Table mmmm.

Table mmmm Desired Size Classes: Subalpine

Size Class	Desired Range
Non-Forest	20%
Seral	3% to 6%

Grass/Shrub	
0" to 5"	10% to 20%
5" to 15"	23% to 47%
15" to 20"	4% to 8%
20" and greater	4% to 8%

A portion of the 15" to 20" and 20" and greater size classed meet the description of old growth as described in "North Idaho Old Growth", (Green et al. 1992, errata corrected 2011). Old growth is of two types, lodgepole pine can be found in the 15" to 20" size class, and comes and goes on the landscape as mountain pine beetle and fire affect it. Mixed conifer old growth is quite variable but may be a mix of larch and Douglas-fir, or multi-storied subalpine fir and Engelmann spruce, as well as other types. Whitebark pine may also persist and form old growth stands, though they are less common now that blister rust has affected this species.

On mesic sites, and at young ages, these stands may have high numbers of trees per acre, or they may be slow to regenerate and have few trees per acre for decades. Density varies as the stand ages and disturbances create small openings in the stand, or remove understory layers. Higher elevation, colder sites, where whitebark pine may be found, have lower stocking levels, down to 1/2 of the levels found on mesic sites, and take longer to reforest following disturbance. Typical basal areas at maturity are 130 to 200 square feet per acre. Wetter sites, including much of the grand fir mosaic, often have the lower basal areas, with a rich, diverse shrub and forb layer.

The amount of standing dead wood varies widely over time. Snag presence is very dynamic. Large expanses of snags are created about every 100 years. Those snags are the larger sizes, and as they fall, snags numbers decline sharply. Between these periods of extensive snag distribution, snags would be present at lower numbers, about 1 to 3 per acre over 20 inches in diameter, and an additional 17 to 28 per acre that are 10 to 20 inches in diameter. The higher numbers would generally be found after fire events. In lodgepole pine stands, snags over 20 inches in diameter are uncommon, less than 1 per acre, while snags 10 to 20 inches in diameter are much more common, 4 to 13 per acre. Large dead wood desired conditions are found in the soils section.

Low- and mixed-severity disturbances occur frequently (every 30 to 50 years), reduce stocking levels and create openings that range from less than an acre to 5 acres in size. Less frequently (120 to 175 years) stand-replacing disturbances initiate a new even-aged

forest. Remnants of the previous stand cover up to 20% of the area, usually in riparian areas and isolated patches. Drier sites tend to have mostly stand-replacing disturbances, while more moist sites have more mixed disturbances.

Root disease, Douglas-fir beetle, spruce budworm and mountain pine beetle are the most common insects and pathogens. Most of the time they act to move the forest toward uneven-aged, climax stand conditions, but also maintain more open stand conditions. Lodgepole pine across the landscape represents a variety of size and age classes so that not all of it is susceptible to mountain pine beetle at the same time.

Bitterroot Mountains

On more moderate sites within this setting, Douglas-fir, western larch, western white pine and lodgepole pine are important intolerant species that are the primary dominance types after stand replacement. Engelmann spruce, subalpine fir, and mountain hemlock are the tolerant/climax species. These species may codominate with the intolerant species following disturbance, or may gradually establish under the canopy of seral species. Which species dominate depends on the time since stand replacement, microclimatic conditions and seed availability. Riparian habitats are dominated by mature Engelmann spruce, mountain hemlock, subalpine fir, grand fir and western redcedar. Elevations above 6500 feet may support whitebark pine and alpine larch. Desired species composition is found in Table gggg

Table gggg Desired Dominance Types: Bitterroot Mountains Subalpine

Dominance Type	Desired Range
Ponderosa Pine/Mixed	0% to 0%
Douglas-fir	0% to 0%
Lodgepole Pine	20% to 29%
Western Larch/Douglas-fir	4% to 8%

Cedar/Grand Fir	0% to 0%
White Pine	0% to 2%
Subalpine fir/Mountain Hemlock/Engelmann spruce/Whitebark pine	10% to 20%
Subalpine fir/Whitebark pine	15% to 31%
Seral Grass/Shrub	9% to 20%
Non-Forest	14%

Young forests are commonly even-aged with relicts surviving from previous disturbances. Those relicts may cover up to 20% of the area and may occur as individual trees or in clumps. Riparian zones have less frequent stand-replacing disturbance and are dominated by climax species. Starting about 50 years after stand-replacing disturbance, forests begin to develop additional age classes and are multi-storied. The younger trees under a canopy of older trees or in small openings are characteristically subalpine fir, Engelmann spruce or grand fir. The typical old forest character is large, old western larch and Douglas-fir with scattered lodgepole pine; whitebark pine; or mature subalpine fir, Engelmann spruce or mountain hemlock. Old forests usually develop several age classes. Desired size class distribution is found in Table hhhh.

Table hhhh Desired Size Classes: Bitterroot Mountains Subalpine

Size Class	Desired Range
Non-Forest	14%

Seral/Grass Shrub	11% to 23%
0" to 5"	3% to 5%
5" to 15"	39% to 79%
15" to 20"	7% to 14%
20" and greater	7% to 14%

A portion of this large tree size class meets the description of old growth as described in "North Idaho Old Growth", (Green et al. 1992, errata corrected 2011). Old growth is of two types, lodgepole pine can be found in the 15" to 20" size class, and comes and goes on the landscape as mountain pine beetle and fire affect it. Mixed conifer old growth is quite variable but may be a mix of larch and Douglas-fir, or multi-storied subalpine fir and Engelmann spruce, as well as other types. Whitebark pine may also persist and form old growth stands, though they are less common now that blister rust has affected this species.

The more moist sites are generally well-stocked, though density varies over time. Higher elevation, colder sites have lower densities, typically down to 1/2 of the density expected on the mesic sites. Young stands often have 600 to 1000 trees per acre or more, especially in lodgepole types. Typical basal areas at 120+ years are 100 to 200 square feet per acre.

The amount of standing dead wood varies widely over time. There are large expanses of snags created at about 100-year intervals. These snags fall over in a relatively short time. The dead standing trees in the stands, 30 to 75 years after disturbance, are relatively small diameter. Snag numbers are 1 to 3 per acre over 20 inches diameter except in lodgepole pine stands, there the number is less than one per acre. In addition, there are 16 to 28 per acre that are 10 to 20 inches in diameter, or in lodgepole pine stands, 4 to 12 dead trees per acre in this size range. Riparian habitats support higher densities of large snags and down wood. Desired levels of dead wood are found in the soils section.

Root disease, Douglas-fir beetle, fir engraver beetle, spruce beetle, mountain pine beetle and white pine blister rust are the most common insects and pathogens. Typically insects and pathogens act to move the forest toward climax stand conditions but also maintain more open stand conditions. Lodgepole pine between 80 and 110 years old is readily susceptible to mountain pine beetle outbreaks, and provides a fluctuating supply of snags for wildlife use.

Disturbances tend to be stand-replacing. Patch sizes for the seral shrub and seedling/sapling sizes are generally <100 acres, but approximately 30% may exceed 1,000 acres. As young stands age, they develop gaps up to a few acres in size. Stand structure becomes more complex over time. Two or more canopy layers are common, and provide snowshoe hare and lynx habitat in spruce-fir types.

At least 30% of 5th code hydrologic units (e.g., watersheds ranging in area from approximately 100,000 to 200,000 acres) provide elk security habitat.

~~Habitat supports viable populations of big horn sheep.~~

Rare habitat elements (e.g., mineral licks, talus slopes, fractured wet bedrock, rocky outcrops, caves, waterfalls, and geologic inclusions) remain available to support associated wildlife species of conservation concern.

Preferred habitats are protected from disturbance by motorized travel. Motorized travel within these areas are at or below xxx miles per square mile or within x miles of mapped calving lambing, nesting, denning, and wintering habitats).

Additional desired conditions will be added if habitat connectivity issues for specific species are identified.

Objectives:

The Forests meet annually with the Idaho Department of Fish and Game to address activities, progress, concerns, and recommendations related to wildlife habitats and population status.

During the life of the plan, XX acres of fragmented habitat are reconnected. (This objective serves as a place holder for species-specific needs, should those needs be determined later in the revision process)

Objectives by biophysical setting:

Idaho Batholith Breaklands

1. Within 10 years following Plan approval, vegetation should be treated on about 100,000 acres (13% of the total breaklands acreage) using a combination of prescribed fire, timber harvest and wildland fire ~~use~~ in order to favor drought-tolerant,

disease-resistant, shade-intolerant species. These treatments will initiate the restoration process. Restoration activities favor western white pine and ponderosa pine on southerly aspects and western white pine, Douglas-fir, ponderosa pine and western larch on northerly aspects.

Idaho Batholith Uplands

2. Within 10 years following Plan approval, vegetation will be treated on about 16,000 acres (3% of the total uplands), using a combination of timber harvest, prescribed fire or wildland fire ~~use~~ to restore seral species (ponderosa pine, western larch, lodgepole pine and western white pine) and reduce grand fir dominance. These treatments will initiate the restoration process. Restoration includes establishing additional trees of those species; conserving existing large, old trees; conserving younger western white pine by pruning; or favoring retention of these species in thinning.

Idaho Batholith Subalpine

3. Within 10 years following Plan approval, vegetation will be treated on about 47,000 acres (5% of the subalpine acreage) using a combination of timber harvest, prescribed fire or wildland fire ~~use~~. These treatments will initiate the restoration process. Restoration activities favor whitebark pine at higher elevations; western white pine, ponderosa pine, western larch and Douglas-fir on more moderate sites; or reestablish young lodgepole pine stands. Restoration may also be designed to encourage development of multi-storied subalpine fir stands to provide snowshoe hare habitat.

Bitterroot Mountains Breaklands

1. Within 10 years following Plan approval, treat vegetation on about 84,000 acres (7% of the breaklands) through a combination of timber harvest, prescribed fire or wildland fire ~~use~~. These treatments will initiate the restoration process. Restoration activities will be designed to favor ponderosa pine, western white pine and western larch where appropriate.

Bitterroot Mountains Uplands

2. Within 10 years following Plan approval, treat vegetation on about 22,000 acres (3% of the uplands) through a combination of timber harvest, prescribed fire or wildland fire ~~use~~. These treatments will initiate the restoration process. Restoration activities will be designed to favor western white pine establishment on moist sites; conserving existing large, old ponderosa pine on drier sites or establishing additional ponderosa pine; and conserving large, old western larch where it occurs and while establishing additional larch on appropriate sites. This may also include favoring the desired species during thinning in young stands.

Bitterroot Mountains Subalpine

3. Within 10 years following Plan approval, treat vegetation on about 89,000 acres (10% of the subalpine setting) through a combination of timber harvest, prescribed fire or wildland fire ~~use~~. These treatments will initiate the restoration process. Activities will be designed to favor restoration of whitebark pine at higher elevations; western larch and Douglas-fir on more moderate sites; or reestablish young lodgepole pine stands. Restoration may also be designed to encourage development of multi-storied subalpine fir stands.

~~The Forests meet annually with the Idaho Department of Fish and Game to address activities, progress, concerns, and recommendations related to wildlife habitats and population status.~~

~~During the life of the plan, XX acres of fragmented habitat are reconnected. (This objective serves as a place holder for species specific needs, should those needs be determined later in the revision process)~~

Standards
Guidelines:

To protect and preserve bat habitat, bat-friendly gates should be installed when closing mines or caves.

To promote germination and resprouting of preferred browse species in elk winter range forage projects, prescribed burning should be implemented within the natural fire season. To achieve the maximum browse response from prescribed fire, management practices, such as slashing, timber harvest or prescribed fire, could be used to provide suitable fuel conditions.

To reduce tree competition with preferred elk browse species in winter range, treated areas should not reforested with planted trees. Trees may be planted where needed to restore desired tree species composition or to achieve site-specific management objectives.

To recruit additional snags where snag numbers are at or below desired conditions (as described in the Vegetation section), projects should identify large, preferably broken-top (≥6 inches diameter at break) live trees as replacement snags.

To ensure that legacy trees are present across the landscape, xx% of the legacy trees within a project area should be retained.

1. In order to promote fire-resistant, resilient forests on the breaklands:
    a. Where scattered large, old ponderosa pine are found, they should be retained, and/or the regeneration of additional ponderosa pine encouraged where it has been lost.
    b. Ponderosa pine forest structure should be restored to open, single-storied forests.
    c. Size class distributions should be restored on north aspects. This may be accomplished by reducing large and medium size classes and increasing small size classes and the seral shrub component.
    d. Seral grasses and shrubs should be increased on southerly aspects, primarily by reducing tree density and using fire to reinvigorate decadent shrubs and grasses.
    e. On north aspects emphasis should be on decreasing grand fir or cedar dominance while increasing shade-intolerant species such as western white pine, ponderosa pine, western larch and Douglas-fir.
    f. Planting or planning for natural regeneration of western white pine, ponderosa pine, Douglas-fir or western larch should be encouraged where appropriate, and culturing with fire or mechanical methods should be used to encourage development of large trees with single- or two-storied stand structure.
2. In order to promote fire-resistant forests on the Uplands, that are resilient to disturbance and potential climate change:
    a. Disturbances should be planned to produce larger patches of seral shrubs, and the small size class.

b. Planting or planning for regeneration of seral species, particularly western white pine, ponderosa pine, and western larch, should also be encouraged where appropriate.

c. Grand fir and cedar dominance should be reduced where appropriate.

d. The large and small size classes, as well as seral shrubs, should be increased while the middle size class is decreased.

e. Stand densities should be reduced while favoring shade-intolerant species, generally old ponderosa pine, western larch, western redcedar and western white pine in addition to grand fir needed to meet desired conditions.

f. Oldest forests, particularly very large, very old western redcedar, grand fir, ponderosa pine and western larch, should be conserved.

g. Treatments should be designed to encourage development of large trees with single- or two-storied stand structure.

3. In order to promote resilient forests on the Subalpine areas:

a. Reestablishment of whitebark pine killed by mountain pine beetle or white pine blister rust should be promoted as opportunities arise on appropriate sites.

b. Western larch and Douglas-fir should be encouraged on moderate Subalpine sites to increase fire-resistance and resilience, and promote forest diversity.

c. Subalpine fir, Engelmann spruce, and mountain hemlock dominance should be reduced as opportunities arise in order to reduce fire susceptibility, and promote forest diversity.

4. In order to improve ecosystem resiliency on all biophysical settings:

Extent	Options to consider in project planning:
Landscape	
	In order to limit the extent of very large, uncharacteristic disturbances, create a more diverse landscape pattern of size classes, species, and patch sizes.
Tree species	

Ponderosa pine	Reduce forest density in all successional stages
	Consider opportunities to plant ponderosa pine after regeneration harvests or wildfire.
	Planting on winter ranges should aim for no more than 100 established (5+ year-old) trees per acre in order to encourage long-term browse production.
Douglas-fir	Reduce forest density in all successional stages on breaklands
	On north aspect breaklands, and all upland and subalpine sites, after regeneration harvests or wildfire, consider ways to encourage western white pine, ponderosa pine and larch where they occurred historically to reduce impacts of root disease
	In order to improve resiliency to potential climate change, plan projects to maintain lower forest density during all stages of succession
Grand fir	On north aspect breaklands, and all upland and subalpine sites, after regeneration harvests or wildfire, consider ways to encourage western white pine, ponderosa pine and larch where they occurred historically to reduce impacts of root disease
Western Redcedar	In order to improve resiliency to potential climate change, plan projects to only encourage

	western redcedar on the moistest of the cedar and western hemlock habitat types.
Western Hemlock	On north aspect breaklands, and all upland and subalpine sites, after regeneration harvests or wildfire, consider ways to encourage western white pine, ponderosa pine and larch where they occurred historically to reduce impacts of root disease
White pine	Plan projects to aggressively plant rust resistant white pine after regeneration harvests or wildfire on moist western redcedar and western hemlock habitat types.
	In order to maintain white pine, thin and prune young stands to favor white pine.
Whitebark pine	Consider planting of rust resistant stock in areas of limited seed source as opportunities arise.
	Use wildland fire as opportunities arise to restore the pattern of WBP successional stages and provide opportunity for natural regeneration where selection pressure with white pine blister rust has resulted in resistant seed producers.
Spruce	Consider the potential effects of warming climate in project planning, and favor spruce through harvest methods and/or reforestation choices on northerly aspects and more moist sites.
Subalpine fir	Consider the potential effects of warming climate

	in project planning, and favor subalpine fir through harvest methods and/or reforestation choices on northerly aspects and more moist sites.
Larch	Consider the potential effects of warming climate in project planning, and favor western larch through harvest methods and/or reforestation choices on cooler and more moist sites.
	In order to maintain established larch, plan projects to manage forest density to favor larch during all successional stages
l hBMtn. Hemlock	Consider the potential effects of warming climate in project planning, and favor mountain hemlock through harvest methods and/or reforestation choices on northerly aspects and more moist sites.
Lodgepole	Manage for landscape heterogeneity of pattern of successional stages

~~To protect and preserve bat habitat, bat-friendly gates should be installed when closing mines or caves.~~

~~To maintain the habitat within a project area used by threatened and endangered species, species of conservation concern, and species of socioeconomic and tribal importance, rare habitat elements should be protected.~~

~~To promote germination and resprouting of preferred browse species in elk winter range forage projects, prescribed burning should be implemented within the natural fire season. To achieve the maximum browse response from prescribed fire, management practices, such as slashing, timber harvest or prescribed fire, could be used to provide suitable fuel conditions.~~

~~To reduce tree competition with preferred elk browse species in winter range, treated areas should not reforested with planted trees. Trees may be planted where needed to restore desired tree species composition or to achieve site-specific management objectives.~~

~~To recruit additional snags where snag numbers are at or below desired conditions (as described in the Vegetation section), projects should identify large, preferably broken-top (≥6 inches diameter at break) live trees as replacement snags.~~

~~To ensure that legacy trees are present across the landscape, xx% of the legacy trees within a project area should be retained.~~

Suitability

Bighorn sheep core herd home ranges are not suitable for domestic sheep or goat grazing, trailing and recreational (goat) packing.

Vegetation

NOTE: Assessment Input: G'ville 1: Consider CBC's Landscape Assessment as part of FP Assessment. Caution with Fire Info (R. Staats); put link on RC site.

	02/09/2013 Component Input			FS Response
	Desired Future Condition: Commonality		**Commonality**	
1	DFC.Common.a	Front/Backcountry allocation	✓ X 3	a. This is something we will have to do additional analysis and review to determine if this is something we want to do. Need to discuss with wildlife. b. This is something we will have to do additional analysis and review to determine if this is something we want to do. Need to discuss with wildlife. c. Thanks d. In the '87 plans (both forests) there was a standard for 10% old growth. There were not desired conditions for specific amounts of old growth in the '07 plan, nor are there in this draft of desired conditions. Old
2	DFC.Common.b	Roaded/unroaded separate areas for DC & Objectives	✓ X 1	
3	DFC.Common.c	General Agreement with DC, OBJ, GL	✓ X 2	
4	DFC.Common.d	Further define Old Growth (87 vs 07/12 plans)—need comparison; very large/old vs large/old---define	✓ X 4	
5	DFC.Common.e	250,000 does it lead to DFC; further proof and define	✓ X 2	
6	DFC.Common.f	Define: fire---define/proof the terminology	✓ X 1	

	02/09/2013 Component Input		FS Response
			growth is defined by the paper North Idaho Old Growth, Green, et al., and varies by forest type. e. The 250,000 acres is actually 358,000 acres, and an objective, not a DC. Meeting that objective will provide opportunities to move the forest toward the DC. f. Thank you for catching that. References to "wildland fire use" have been replaced with "wildland fire".
	Objectives: Commonality		
	Standards: Commonality		
	Guidelines: Commonality		
	Suitability: Commonality		

	02/09/2013 Component Input		FS Response
	Desired Future Condition	**Working Group**	
7	DFC.Oro1.a Components: Are we even ready to discuss the portion yet?? Feel that there are significant components lacking w/ the assessment. Are all the pieces there that are outlined w/in the CFRs DFC.Oro1.b Vegetation: Hard at this time to do wordsmithing and this point. How does ecological forestry fit in? Need to further develop these standards and guidelines. Necessary background is missing for some folks that lead to informed decision making and editing/commenting. DFC.Oro1.c Forest-wide DC: Natural processes continue to play a role. Where is the language w/ re to function? Where is connectivity discussion w/ re to vegetation. Not just a wildlife discussion??? Climate change? DFC.Oro1.d Bitterroot Mtns: Table dddd Desired Dominance Types: Bitterroot Mountains Uplands: White Pine: 40%: Comment w/ regard to how achievable this DC is. Based on past history….to get back to white pine past has shown that needs large cuts. What are implications of ecological implications for other ecological resources? Concern that this doesn't become a single spp approach…at the expense of other native species. Need to make sure we keep a balance. How will climate change adaptations be considered in meeting these DFCs? MARTY – the more drought/fire rest trees are what we want to go to looking at climate change. Model info is showing that those spp that would be fire/disease rest are what we're managing for. GROUP – would like to see more info on this in the assessment. Don't be so focused on where we are today….	Orofino 1 w/Boise Satellite (see attached document)	a. All the plan components that are needed are there. b. c. Each DC has descriptions of how the forests function – disturbance processes. Connectivity will be discussed in the Wildlife sections when we have the tools necessary to do that analysis. d. DCs described here are long-term pictures of what we would like on the forest. Both harvest and fire provide opportunities to restore white pine, but it will be a slow process. The DCs lay out a balance of all native forest types, based on the historic range of those

	02/09/2013 Component Input		FS Response
			species.
	DFC.Oro2.a Concern: How the Plan is defining and using Old Growth?	Orofino 2	a. OG is defined in "North Idaho Old Growth" by Green, et al.
	DFC.Gvil1.a Want clarity on tools to accomplish 250K ac. Disturbance objective DFC.Gvil1.b Activities in wild/roadless should be additive, not constraining DFC.Gvil1.c Is HRV really attainable and desirable. Do we want a fire resistant forest? DFC.Gvil1.d Increase WP decrease GF is conducive to commercial timber harvest DFC.Gvil1.e HRV is a point in time, is that point what we want DFC.Gvil1.f Size class definitions work for even-age stands. How are multistory stands portrayed in DC DFC.Gvil1.g Stand density seems to be missing DFC.Gvil1.h ?ability to monitor attainment across forests. (FIA should be good B. Bollenbacher) DFC.Gvil1.i Is it possible to attain DC across forest when we can only "actively' manage" 25% of forest DFC.Gvil1.j Can fire alone accomplish DC on 75% of forest DFC.Gvil1.k Should DC be separate for front/back country; admin ability to achieve is different want detailed DC by geographic area	Grangeville 1	1a. There is nothing in plan components that refers to 250K. The objectives call for a total of 358,000 acres of disturbance over the next 10 years. 1b. 1c. HRV is a long-term view of what the forest should look like. It portrays a forest that is healthy, resilient to disturbance, and resistant to drought, disease, and insects. 1d. Much of the desired condition can be achieve using commercial harvest. 1e. HRV is not a point in time picture, but a range based on

	02/09/2013 Component Input		FS Response
			historic conditions over a long period of time. 1f. Multi-storied stands are described in the desired conditions where they are appropriate. 1g. Density is described as basal areas per acre at maturity for each biophysical setting. 1h. FIA plots will likely be used for most vegetation monitoring. There will be a separate monitoring plan developed later. 1i. The forests were once in the conditions described in the DCs, and can be again. It will take decades to get there. 1j. Fire, insects, and disease kept the forest within the HRV for decades, and should be able to do so

	02/09/2013 Component Input		FS Response
			again. 1k. When Geographic Areas are described, DCs will also be described in more detail there.
	DFC.Gvil2.a Looks Okay at this point	Grangeville 2	2a. Thank you.
	DFC.PMLL.a Okay; Bitterroot Mtns (uplands): Comment: reduce white fir and hemlock—more red fir (more marketable wood)	Potlatch, Moscow, Lapwai, Lewiston	a. Thank you. The DCs do describe less grand fir and hemlock.
	DFC.KKL.a Mill capacity for large diameter wood DFC.KKL.b Biomass until from pruning PCT	Kamiah/Kooskia w/ Missoula Satellite	
	Objectives		
	OBJ.Oro1.a Objectives: Would like to see how old growth mgmt. was done in the 87 plan v how it's being approached in the FPR. OBJ.Oro1.b #1: fire use: No such thing as wildland fire use – how about we just say fire? Should be consistent in all following para. OBJ.Oro1.c #2: 16,000 acres: What is the basis for all of these acreage amounts? These target totals don'	Orofino 1 w/Boise Satellite	1a. The '87 plans called for 10% old growth on each forest. For this revision, old growth is a part of the 20+ size class (or 15"-20" for lodgepole), and will be present as a function of meeting DCs, particularly for disturbance regimes. 1b. "Wildland fire use" has been changed to "wildland fire". 1c. These acreages

	02/09/2013 Component Input		FS Response
			came from frequencies of disturbances on each of the biophysical settings. They will be further developed into ranges, rather than discrete acreages.
	OBJ.Oro2.a	Orofino 2	
	OBJ.Gvil1.a Partition OBJ by front/backcountry based on tools avail OBJ.Gvil1.b Want to know more specifically where each OBJ applies OBJ.Gvil1.c Consider adding emphasis tool (i.e. harvest) to be used to accomp. OBJ OBJ.Gvil1.d Many OBJ need to be stepped down to MA or GA OBJ.Gvil1.e NOTE: some info will come in @ timber section, especially tools and cross-walk with admin limits/stakeholders OBJ.Gvil1.f Need to clarify how natural events (i.e. McQuire) affect DC and mgt OBJ.Gvil1.g Old growth objectives: same for front/back country? OBJ.Gvil1.h Old growth by age or size or other OBJ.Gvil1.i Remove refs. To wildland fire use—use new terminology OBJ.Gvil1.j OBJ based on fire return interval. Is there another method. Are these# too low OBJ.Gvil1.k Consider basing # as minimum not "about" OBJ.Gvil1.l Have OBJ (at full accomplishment) be modeled to show where we'll be in 10 years. How well will we be accomplishing DC. How far will we move toward HRV or DC OBJ.Gvil1.m OBJ based on past performance or new DC? (Save for Timber)	Grangeville 1	1a. 1b. The DCs and objectives will be "stepped down" to specific geographic areas as they are developed. 1c. It is not appropriate to identify the tool to accomplish objectives in an objective statement. 1d. We will address when we get to MA or GA. 1e. There is some connections between vegetation and timber. 1f. DC do not clarify how natural events

	02/09/2013 Component Input		FS Response
			effect DC. 1g. There are no old growth objectives. 1h. There are no old growth objectives. 1j. 1k. 1l. Yes, we will eventually model this. 1m. The objectives are based on the new DCs.
	OBJ.Gvil2.a ? There doesn't seem to be a standard to go with the objective for vegetation treatment section—is this coming later OBJ.Gvil2.b Proposed objectives look okay	Grangeville 2	2a. Standards are not tied to objectives, but are used to achieve DC if needed. 2b. Thanks
	OBJ.PMLL.a Okay: Idaho Batholith Breaklands, Uplands	Potlatch, Moscow, Lapwai, Lewiston	
	OBJ.KKL.a More disturbance the better. Ac in BPS = 358k not 250k ac previously discussed OBJ.KKL.b 4. Table: page 4: Grand Fir: less trees per acre OBJ.KKL.c 4. Table: Lodgepole: Instead of allowing the hetero pattern of landscape consider reduce the distribution ie encroachment meadow/parks to meet DFC	Kamiah/Kooskia w/ Missoula Satellite	
	Standards		
	Standards?? Maybe follow up on this via e-collaboration. Where would we get the info to beef up these standards? What science will be used? Need to set thresholds. What about riparian areas? Where exactly will this be addressed.	Orofino 1 w/Boise Satellite	The items mentioned here should be addresses in desired

	02/09/2013 Component Input		FS Response
	• Snag requirements • Canopy cover • Density requirements • Patch/connectivity • Old growth • Stocking requirements w/in different areas (replanting) – minimum stocking levels – review new science related to this v. NFMA		conditions. If they are adequately address then there should be little need for standard. Beefing up standards is not how we should be approaching standards.
		Orofino 2	
		Grangeville 1	
		Grangeville 2	
		Potlatch, Moscow, Lapwai, Lewiston	
		Kamiah/Kooskia w/ Missoula Satellite	
	Guidelines		
	GDL.Oro1.a **Guidelines** Suggestion for some standards. Why no standards?? GDL.Oro1.b Do we need tree retention areas? Variable harvest techniques…not your standard seed tree harvest, etc. Similar to what we're doing in Clear Creek area…small patches w/in harvest units. Maybe better addressed in the timber section as opposed to here. Question of consistency – when you have listed spp….should refer to the spp conservation plan as opposed to guidelines found in this section? GDL.Oro1.c C. component-- Appears to contradict some of the current v historic age class distributions shown above. Is this broken out in the assessment? Need to check on this or add info on where this came from. GDL.Oro1.d 2.c—at end ADD: as appropriate GDL.Oro1.e 2f: particularly very large, very old ---What exactly does this mean? Means different things to different folks. Why not just refer back to Green et al	Orofino 1 w/Boise Satellite	1a. Standards are only needed if there is information, supported by science that indicates some restriction on projects to achieve DC. The id team did not identify any needs for standards 2b. These are all implementation discussion not plan

	02/09/2013 Component Input		FS Response
	standards? GDL.Oro1.f 3c: opportunities What constitutes an "opportunity"? can we get some examples?? Fire?? GDL.Oro1.g 4. Table: Ponderosa Pine: wildfire Would like to see further clarification on this so that these two bullets don't appear contractictory GDL.Oro1.h Sub-alpine fir: Consider the potential effects of warming climate in project planning, and favor subalpine fir through harvest methods and/or reforestation choices on northerly aspects and more moist sites. (Spruce, subalpine and larch etc seem to be competing….how do they all fit? These are unclear at this point.) GDL.Oro1.i Mtn Hemlock: warming climate Why worded this way? Why not just say climate change – could get cooler. This question applies to all places it says 'warming climate'		components. 2c. Cedar is still a component of the Desired Conditions. The guideline for cedar identifies where cedar would be an appropriate species. 2d. Done. 2e. This addresses things like the DeVoto Cedar Grove, and other groves of very large trees. These are a subset of old growth as defined in Green, et al. 2f. Opportunities may be any disturbance – fire, harvest, etc. 2g. Not sure what the contradiction is. 2h. Those more specific guides would be appropriate for project planning. Spruce, subalpine fir, and larch are often found together. 2i. It is worded this

	02/09/2013 Component Input		FS Response
			way because most climate models predict a warmer climate in the future.
	GDL.Oro2.a 2F: Concern of old growth health? Root disease; and other diseases; conserving; wanting to not use the term old growth in DC that would limit use of old growth (timber/economics) GDL.Oro2.b ADD: Promote disease resistant forest in the guideline GDL.Oro2.c Then consider that the wording is carving out smaller and smaller lands for suitable timber production GDL.Oro2.d White bark pine; should include options/of treatment to restore pattern of WBP GDL.Oro2.e 2F ADD: "and management" at the end.	Orofino 2	a. b. Working toward the Desired Conditions would promote a disease-resistant forest. c. d. Those would be appropriate for project planning. e.
	GDL.Gvil1.a 40 ac limitation vs patch size DC (NOTE: policy requires RF approval); can FP address this to help approval process/decrease opp for appeal GDL.Gvil1.b Why is it OK to create opening greater than 40 ac with fire but not timber harvest GDL.Gvil1.c Moving toward seral species component—great GDL.Gvil1.d Consider harvest prior to CMAI to help achieve decrease in mid-seral bulge GDL.Gvil1.e Use consistent language in all C-L intro's fire resist, resilient, etc GDL.Gvil1.f Reminder: define your acronyms. We're not all foresters	Grangeville 1	1a. Yes, the FP can help set the basis for larger patch sizes. 1b. It is OK to create opening greater than 40 acres with timber harvest so long as the requirements of CFR are met. 1c. 1d. That is a possibility to be considered during project planning, and is allowed as long as

	02/09/2013 Component Input		FS Response
			CFR requirements are met. 1e. 1f.
	GDL.Gvil2.a	Grangeville 2	
	GDL.PMLL.a	Potlatch, Moscow, Lapwai, Lewiston	
		Kamiah/Kooskia w/ Missoula Satellite	
	Suitability		
		Orofino 1 w/Boise Satellite	
		Orofino 2	
		Grangeville 1	
	SUI.Gvil2.a Suitability for all uses	Grangeville 2	
		Potlatch, Moscow, Lapwai, Lewiston	
		Kamiah/Kooskia w/ Missoula Satellite	

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Wildlife

	02/09/2013 Component Input		FS Response
	Desired Future Condition: Commonality	**Commonality**	
1	DFC.Common.g DFC #5: Needs Work/Re-write; DFC.Common.h DFC #5 Harmful human activity in elk security DFC.Common.i Hab. Not all activity should be limited (see also G'ville 2) DFC.Common.j DFC #2: Rework who what where how DFC.Common.k DFC #2: Move to Objectives	✓ X 5 ✓ X 2 ✓ X 1 ✓ X 3 ✓ X 1	a. This will be re-worked once we additional information. b/c. d. Who, how .. are not appropriate as DC's. e. This is an appropriate DC.
	Objectives: Commonality		
	Standards: Commonality		
	Guidelines: Commonality		
	Suitability: Commonality		
	SUI.Common.a Big Horn Sheep: Clarify specific info: why?	✓ X 3	The DC is for viable population of bighorn sheep. The current science is that having domestic sheep with bighorn sheep threatens their

	02/09/2013 Component Input		FS Response
			viability and therefore not suitable.
	Desired Future Condition	**Working Group**	
	DFC.Oro1.e Para 2: …elk security habitat. (Is this a DFC? Reads more like a guideline) DFC.Oro1.f #5: ADD … by motorized AND NON-MOTORIZED travel. …wintering habitats. Wanted to see the word motorized stricken from this DFC or not singled out. Some other language to consider…reduce human caused harmful disturbances for spp of concern, T&E	Orofino 1 w/Boise Satellite (see attached document)	1a.This is an appropriate written DC. 1b. We will review information pertaining to this.
	DFC.Oro2.b Clarify a use mapped calving areas; if elk are there DFC.Oro2.c Current observed calving areas DFC.Oro2.d Xxx (1) mile per square mile or within…. DFC.Oro2.e X (1/4) mile of mapped… DFC.Oro2.f Allow access for predator control /management DFC.Oro2.g Mark out the last sentence in DC	Orofino 2	2a. We will be clarifying these as we develop additional information 2b. See above 2c. See above 2d. See above 2e. See above 2f. This sentence will be deleted. It was there to let people know we are looking at connectivity but have not yet determine appropriate language.
	DFC.Gvil1.l What about song birds? DFC.Gvil1.m Use ungulate vs elk so as to include deer and other browsers DFC.Gvil1.n #5 Need to clarify what, where, when, how preferred habitats "are	Grangeville 1	1a. Habitat for wildlife including song birds is provided through the

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	clearly identified and substantiated" map it DFC.Gvil1.o Is this motorized restriction an old plan remnant DFC.Gvil1.p Concern that the combo of habitats nest, den, etc cover the whole forest and could be used to close the whole forest to motorized use DFC.Gvil1.q #1 is "wildlife" inclusive to include all the critters—chipmunk, squirrels, birds or is it a subset? DFC.Gvil1.r #2 is 30% in conflict with other goals for other resources. Need for integration DFC.Gvil1.s Need clearer definition of security to include habitat structure—hiding cover, thermal cover etc DFC.Gvil1.t Should this dc be a guideline (#2) DFC.Gvil1.u #3: is this redundant to #1. Why pull out BHS special DFC.Gvil1.v #4 define and map "rare" DFC.Gvil1.w #6 need to flesh this out too generic		DC for vegetation. 1b. Providing for elk security (a wide ranging herd animal) would, by default, provide security for the other ungulates. 1c. Who, how… are not appropriate as DC's. 1d. No, this is based on the best available science. 1e. This will be re-written as we get better information. 1f. Wildlife is inclusive to include all critters 1g. We are currently doing some analysis work to answer this question. 1h. security is defined as 250 acres in size, half mile from a motorized route. Other habitat attributes are provided in the veg section

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			DCs. 1i. No, this is an appropriate DC. 1j. Combined per suggestion 1k. We will be looking to re-write this as we get additional information. 1l. Yes, we will be doing that as we get additional information.
	DFC.Gvil2.b "Preferred habitats are protected from external disturbance. Create an objective for specific info listed in #5 DFC.Gvil2.c Take out reference to "motorized travel" on #5---move to guidelines DFC.Gvil2.d Change #3 to "habitat should support viable populations of all desired wildlife associated with that habitat" DFC.Gvil2.e Move #2 to an objective and add a timeframe. During the life of plan at least 30% of 5th code HUCS provide elk security habitat	Grangeville 2	2a. Not sure what that objective would be. We need to better define DC #5. Once we have that we will review the objectives. 2b. Will revisit the information supporting this DC. 2c. Combined per suggestion 2d. That would not be an appropriate objective. This is an appropriate DC.
	DFC.PMLL.b Clarify #2..is this % based on the best science? DFC.PMLL.c Habitat supports viable populations of big horn sheep in non-roaded	Potlatch, Moscow, Lapwai, Lewiston	a. Yes b. This is not

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	areas DFC.PMLL.d Remove "additional desired conditions will be added…" DFC.PMLL.e ADD to MOTORIZED TRAVEL section: Create additional motorized access for area lost for secure wildlife habitat. DFC.PMLL.f Rewrite #5: preferred habitats are protected at or below xxx miles per square mile or within x miles…		something we would want to do, since some of our critical habitat is in roaded areas. c. We will, this was to let people know we are trying to write DC for connectivity. d. This will be discussed in recreation. e. We will be re-writing as we get additional information.
	DFC.KKL.c Elk have been redistributed from historic areas; CBC working on complete problem not just winter range DFC.KKL.d Para 2: Better understanding, acreage, distance, structure, shape, temporal? Add a sentence of where there is habitat; Doesn't sound like a DF. Human use of elk habitat will be managed to provide elk security (but needs to be measurable), this needs a rework; elk herds are currently stressed, error on the side more security. Wolves and humans DFC.KKL.e Big Horn Sheep: why is BHS broken out? Already much is known. DFC.KKL.f Preferred habitats: similar to security: better define acres, distance-structure—shape—temporal (season)—human factor DFC.KKL.g #2: add where habitat is available	Kamiah/Kooskia w/ Missoula Satellite	a. We will be working with CBC's info. b. This is an appropriate DC and we will be looking at the effect this may or may not have. c. Combined per suggestion d. This is not good wording for a DC.

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	Objectives		
	OBJ.Oro1.d	Orofino 1 w/Boise Satellite	
	OBJ.Oro2.b Add: eval habitat areas that are protected every xxx years OBJ.Oro2.c Restore access of OHV trails when animal and habitat concerns are alleviated	Orofino 2	a. Evaluate is not a good term for an objective. b. Regardless of where addressed in document, integration between rec/wl will be key.
	OBJ.Gvil1.n #1 should be a standard "you shall" OBJ.Gvil1.o #2 Habitat for what species. Need clarification does this relate to DC 1? If so how/what is the metric, how monitored—recommend delete. Need to address connectivity but not as worded here	Grangeville 1	a. This would not be an appropriate standard. b. This will be re-written as we get additional information.
	OBJ.Gvil2.c Within 5 years of plan approval identify elk calving grounds that can be affected by human interaction	Grangeville 2	Not an appropriate objective.
	OBJ.PMLL.b Group would like to see specific species connectivity requirements as developed	Potlatch, Moscow, Lapwai, Lewiston	This will be done as we get more information.
	OBJ.KKL.d	Kamiah/Kooskia w/ Missoula Satellite	
	Standards		

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		Orofino 1 w/Boise Satellite	
		Orofino 2	
		Grangeville 1	
		Grangeville 2	
		Potlatch, Moscow, Lapwai, Lewiston	
		Kamiah/Kooskia w/ Missoula Satellite	
	Guidelines		
	GDL.Oro1.j General: why not add something about fisher and northern goshawk GDL.Oro1.k #2: T&E species…some question on this…is this just related to the rare elements? Does this apply to a species when its listed? This will probably evolve over time and will be addressed as we go.	Orofino 1 w/Boise Satellite	a. Need to know more specifics as to what we would add. Not enough information. b. This will be re-written as we get additional information
	GDL.Oro2.a Clarify on 2nd sentence about species of concern…and tribal importance GDL.Oro2.b Group liked sentence 3 and 4 GDL.Oro2.c Clarify "legacy trees" GDL.Oro2.d Clarify "xx%" what does that mean	Orofino 2	a. We will be re-writing this as we get additional information. b. Thanks c. We will add a definition for legacy trees d. This is a place holder until we get

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			additional information.
	GDL.Gvil1.g #1 is a standard. Delete. Allow appropriate tool to be determined at project design GDL.Gvil1.h #2 restates DC 4. Necessary? GDL.Gvil1.i #3 Reword as DC add acres and timeline GDL.Gvil1.j #4 this is a standard. Sent #2 is a guideline but need to tie to DC GDL.Gvil1.k #5 this is a standard consider snag density	Grangeville 1	1a. This is an appropriate gdl. 1b. Deleted per suggestion 1c. Acres are not usually a DC 1d. This is written as a guideline. Snag densities are defined in the veg section. 1e. This is an appropriate gdl.
	GDL.Gvil2.b Add: human interaction in areas of calving lambing, nesting, denning and wintering should be reduced"	Grangeville 2	Will revisit the literature concerning this gdl.
	GDL.PMLL.b #2 should be a DFC GDL.PMLL.c Add: " coordinate with IDFG to reduce # of wolves to protect elk habitat/security" GDL.PMLL.d Where possible, prevent the spread of noxious weeds before or after prescribed burns	Potlatch, Moscow, Lapwai, Lewiston	a. Deleted per suggestion. b. Not an appropriate gdl. c. Already addressed in the noxious weed section.
	GDL.KKL.a Define rare habitat elements better GDL.KKL.b Para 3: elk winter and SUMMER range forage GDL.KKL.c Remove within natural fire season GDL.KKL.d Para 4: add where practical	Kamiah/Kooskia w/ Missoula Satellite	a. Will develop a definition if we continue to use. b. We recognize interest/needs

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			related to non-winter range forages --- spring, summer and fall. The guideline is specific to winter range based on the ecology of the preferred shrubs, specifically the ceanothus species. c. Shrub winter ranges are often preferred by fire managers for burning in the spring. However, the browse species neither sprout nor compete well with non-browse shrubs. d. Where practical is not an appropriate term to use in a gdl.
	Suitability		
	SUI.Oro1.a Core herd home ranges----does this recognize the potential need to	Orofino 1 w/Boise	a. This refers to the

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	expand home ranges? SUI.Oro1.b Recreational goat packing----why are we picking on the goat packer?	Satellite	currently recognized core home range. It does not refer to any potential in the future. b. The risk to bighorn sheep for disease transfer is also associated with domestic goats.
	SUI.Oro2.a No net loss of domestic sheep grazing here or later	Orofino 2	Not sure what this means.
	SUI.Gvil1.a Are these areas mapped?	Grangeville 1	Yes.
	SUI.Gvil2.a Okay; suitable for all other uses	Grangeville 2	yes
		Potlatch, Moscow, Lapwai, Lewiston	
		Kamiah/Kooskia w/ Missoula Satellite	

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