United States Department of Agriculture
Forest Service
Nez Perce -Clearwater National Forests
Supervisor's Office
903 3rd Street
Kamiah, ID 83536
208-935-2513
Fax: 208-935-4275

File Code: 1920
Date: December 18, 2017

Dear Forest Planning Participant;

The Nez Perce-Clearwater National Forests (Forests) initiated Forest Plan Revision under the 2012 planning rule in early 2012. A notice of intent to revise was published in the Federal Register in July 2014, initiating a comment period on the 2014 proposed action. At this time, the Forests are preparing to develop alternatives. We intend to develop alternatives collaboratively with anyone interested in the process.

Alternatives will be developed primarily to respond to the issue statements developed from comments on the 2014 Proposed Action. The identified issue statements concerning unresolved conflicts with the proposed action uses are as follows:

> **Issue 1**: The proposed action may not adequately apportion recommended wilderness areas across the Forest. The proposed action may not adequately apportion suitable Wild and Scenic River segments across the Forest.
>
> **Issue 2**: The proposed action may not adequately apportion motorized and non-motorized recreation access opportunities in the frontcountry (Management Area 3) and backcountry (Management Area 2) areas across the forest.
>
> **Issue 3**: Desired Conditions for forest vegetation should be met through natural processes or through active management. The rate of progress towards the desired conditions should occur at a faster or slower pace. Desired conditions should include higher compositions of early seral species and increased or decreased patch sizes and increased or decreased tree densities to meet ecological habitat needs of wildlife species, maintain resiliency of forest vegetation communities and to meet social needs of forest users at a local, regional and national scale.
>
> **Issue 4**: The Potential Timber Sale Quantity (PTSQ) should be increased or decreased to better provide for a balance of ecological sustainability, economic and social resiliency. The maximum regeneration harvest unit size should be increased or decreased.

The Forests intends to develop alternatives using the public input. Collaborative and public meetings on alternative development will be ongoing through December, January, and into February. We intend to have alternatives finalized for analysis in early spring 2018. Stay tuned for additional information on ways to participate both in person, by e-mail and through other electronic means!

Based on internal and external feedback, we have developed the attachment aid in development of alternatives. This document is not an alternative in itself but is a set of plan components, based on the original 2014 proposed action and modified based on internal and external comments received so far that may be used to develop alternatives.

The following text includes several topics with components that have not been fully developed. Some were deferred based on time constraints, such as Recreation Opportunity Spectrum mapping and Scenic Integrity Objectives. Others, such as recommended Wilderness Areas, Wild and Scenic Rivers Suitability and elk security plan components were deferred so that we could develop a full range of alternatives with the public using the best available science rather than predetermining recommendations that would not respond to the issue statements by themselves. Other land allocation decisions such as management area designations, geographic areas designations, suitability determinations and potential timber sale quantities (PTSQ) are also expected to vary by alternative and are only presented in very draft form in this document. We look forward to using these areas as the basis for alternative development.

Several locations in the document below include commentary highlighted in red to get the reader thinking about how that section may vary by alternative. Should we have more or less of a particular use? Should we be more or less restrictive for a particular resource? Should we allow more or less of a particular opportunity? What other ways do we have to manage habitat for a species? Do we have the correct balance of economic, ecologic and social considerations for the Forest? Are we appropriately taking into account the connection our local communities have with the Forest? We look forward to having these discussions with you in the near future. Plan components that have been identified by the interdisciplinary team as likely to vary by alternative have been highlighted in grey.

We look forward to developing alternatives collaboratively with you, using this document as preparatory work. As you read, please take note of potential variations, modifications or alternate methods of addressing our major issues that could be incorporated into alternatives. Please bring those ideas with you to our collaborative alternative development engagements.

For each item that may vary by alternative, please think through the following questions:

1. Are the plan components correct? Should the plan components vary by alternative? How should the plan components vary?

2. Where on the landscape does this apply? How does that land allocation vary by alternative?

Alternative development will conclude in late February so that the interdisciplinary team may begin analyzing effects of the alternatives for the Draft Environmental Impact Statement (DEIS) in March. The DEIS is scheduled to be released in November 2018, which will initiate a 90 day comment period. The FEIS is scheduled to be released in December 2019 with a planned Record of Decision and Revised Forest Plan in June of 2020. We will continue to update these timelines on our website: https://www.fs.usda.gov/main/nezperceclearwater/landmanagement/planning.

A collaborative workshop on alternative development will be held in Orofino on January 10th and 11th, 2018. All are invited to attend this two-day session. Additionally, a live webinar will be scheduled for January 9th, 2018 for those wishing to participate remotely. An alternative development workshop in Missoula focusing on recreation, wilderness and Wild and Scenic Rivers is tentatively planned on January 18th, 2018. More information will be forthcoming.

If you are not able to join us in person or virtually during alternative development collaboration, we welcome your input at any time by phone or by emailing: fpr_npclw@fs.fed.us.

Public participation in land management planning is critical to our success. We look forward to hearing from you and we look forward to having in depth conversations regarding management of your National Forests. I would also like to sincerely thank those that have been involved to date. A special thanks to the Forest Plan Collaborative for helping us to get to where we are today.

For more information, please visit our website or contact Forest Planner, Zach Peterson, at 208-935-4239 or zacharyapeterson@fs.fed.us.

Thank you again for your continued participation. We look forward to seeing you soon!

Sincerely,

CHERYL F. PROBERT
Forest Supervisor

Contents

Figures

Tables

Introduction to Forest Plan Components

This document is organized in several parts: Introduction to Forest Plan Components, Framework for Alterative Development, Appendix A: Glossary of acronyms and terms used in the document, and Appendix B: Region 1 Existing and Potential Vegetation Groupings. The intent of the document is to provide proposed plan components as a foundation for future discussions on alternative development.

There is an important distinction between plan components such as desired conditions, objectives, standards, guidelines, and suitability, and other elements of the plan. A plan amendment is required to add, modify, or remove one or more plan components, or to change how or where one or more components apply to all or part of the plan area (including management areas or geographic areas) (36 CFR 219.13(a)).

Other elements of the forest plan that are not plan components provide information and/or background material integral to the successful implementation of the forest plan. As conditions change, this information can be updated with administrative changes.

Goals

Goals are broad statements of intent, other than desired conditions, usually related to process or interaction with the public. Goals are expressed in broad, general terms, but do not include completion dates. (36 CFR 219.7(e)(2)).

A goal is appropriate to describe overall desired conditions of the plan area that are also dependent on conditions beyond the plan area or Forest Service authority. Goals are used to describe a state between current conditions and desired conditions but without specific amounts of indicators (acres, percentages, frequencies). They may apply when an outcome is the result of a partnership between the Forest Service and other land owners within the broader landscape. Goals are coded with a “GL.”

Desired Conditions

A desired condition is a description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined, but not include completion dates (36 CFR 219.7(e)(1)(i)). Desired Conditions are the focus of how we intend to manage the landscape into the future.

The desired conditions describe the social, economic, and ecological attributes that are the cornerstones for management and will be used to guide management of the land and resources of the plan area. They may apply to the entire plan area, or to specific geographic or management areas. Desired conditions are not commitments or final decisions approving projects and activities. The desired condition for some resources may currently exist, or for other resources may only be achievable over a long time period. The Forest may need to make adjustments in the desired conditions if monitoring results indicate they are not achievable in the long term. Desired conditions are coded with a “DC.”

Standards

A standard is a mandatory constraint on project and activity decision making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements (36 CFR 219.7(e)(1)(iii)). Standards should be used only when essential to meet a desired condition or meet a legal requirement.

Standards can be developed for forestwide application or for specific areas and may be applied to all management activities or selected activities. Standards are coded with a "STD."

Guidelines

A guideline is a constraint on project or activity decision making that allows for departure from its terms, so long as the purpose of the guideline is met. Guidelines are established to help achieve or maintain a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements (36 CFR 219.7(e)(1)(iv)).

Guidelines can be developed for forestwide application or for specific areas and may be applied to all management activities or selected activities. Guidelines are coded with a "GDL."

Consistency with Plan Components

As required by the National Forest Management Act (NFMA), all projects and activities authorized by the Forest Service must be consistent with all applicable plan components in the forest plan as described at 36 CFR 219.15.

When a proposed project or activity would not be consistent with the applicable plan components, the responsible official shall take one of the following steps, subject to valid existing rights:

1. Modify the proposed project or activity to make it consistent with the applicable plan components
2. Reject the proposal or terminate the project or activity
3. Amend the plan so that he project or activity will be consistent with the plan as amended
4. Amend the plan contemporaneously with the approval of the project or activity so that the project or activity will be consistent with the plan as amended (36 CFR 219.15(c))

Desired Conditions: Because of the many types of projects and activities that can occur over the life of the plan, it is not likely that a project or activity can maintain or contribute to the attainment of all desired conditions, nor are all desired conditions relevant to every activity (i.e., recreation desired conditions may not be relevant to a fuels treatment project). Most projects and activities are developed specifically to maintain or move conditions toward one or more of the desired conditions of the plan. It should not be expected that each project or activity will contribute to all desired conditions in a plan, but usually to one or a subset.

To be consistent with desired conditions of the Forest Plan, a project or activity must be designed to meet one or more of the following conditions:

1. Maintain or make progress toward attaining one or more of the plan desired conditions or objectives without adversely affecting progress toward maintenance of other desired conditions or objectives
2. Be neutral with regard to progress toward attaining the plan's desired conditions or objectives

3. Maintain or make progress toward attaining one or more of the desired conditions or objectives over the long term, even if the project or activity would have an adverse but short-term effect on progress toward attaining, or maintenance of, one or more desired conditions or objectives
4. Maintain or make progress toward attaining one or more of the plan's desired conditions or objectives, even if the project or activity would have an adverse but negligible long-term effect on progress toward attaining, or maintenance of, other desired conditions or objectives

Standards: A project or activity is consistent with a standard if it is designed in exact accordance with the standard. Deviation from standards requires an amendment to the plan.

Guidelines: A project or activity must be consistent with all guidelines applicable to the type of project or activity and its location in the plan area. A project or activity is consistent with a guideline in either of two ways:

1. The project or activity is designed in accordance with the guideline
2. A project or activity design varies from the guideline but is as effective in meeting the intent or achieving the purpose of that guideline

When the project design varies from the exact wording of a guideline, project documentation must specifically explain how the project design is as effective in meeting the purpose of the guideline. Under this circumstance, a plan amendment is not required. However, if a project or activity is not designed to comply with the intent or purpose of a guideline, an amendment to the plan is required.

Preparing for Alternative Development

The following sections contains information for alternative development for the Nez Perce-Clearwater National Forests Revised Forest Plan. It is described in proposed plan components that includes desired conditions, objectives, standards, and guidelines. Other Forest Service direction including laws, regulations, policies, executive orders, and Forest Service directives (manual and handbook) are not repeated in the Forest Plan.

The section is organized under the following major categories:

- 1 Physical and Biological
- 2 Tribal Trust Responsibilities
- 3 Humans Uses of the Forest
- 4 Production of Natural Resources
- 5 Designated, Proposed, Geographic Areas and other Special Interest Areas

The first category describes proposed direction for providing ecological sustainability and diversity of plant and animal communities (36 CFR 219.8 and 219.9).

The second category describes proposed direction that assists in fulling the Forest Service federal trust responsibility.

The next two categories describe proposed direction for providing social and economic sustainability, including multiple uses (36 CFR 219.8 and 219.10).

The last category describes the proposed direction for spatially identified areas.

All proposed direction is integrated across resources and with cross-references identified where needed for clarification.

Management Area Descriptions

Management areas (MAs) and geographic areas (GAs) are spatially identified areas within the Forest. These areas are assigned sets of plan components such as desired conditions, suitable uses, and in some areas either standards or guidelines, or both.

This proposed action includes some preliminary management area delineations, but we are seeking your comments to assist with continuing to develop these components as well as potential identification of geographic areas (descriptions of geographic areas are found in section 5.C).

Management Area 1 (MA 1): Wilderness, Wild and Scenic Rivers, and National Historic Landmark Areas

This Management Area 1 (MA 1) is comprised of protected areas with national designations. This MA consists of three sub-categories designated wilderness, designated wild and scenic rivers, and National Historic Landmarks each with their own specific management direction. Components specific to Management Area 1 are coded “MA1”.

Management Area 2 (MA 2): Backcountry

This Management Area 2 (MA 2) includes lands within Idaho Roadless Areas, recommended wilderness areas, suitable wild and scenic rivers, parts of the Gospel Hump Geographic Area and Research Natural Areas (proposed and designated). This MA is made up of relatively large areas (generally without roads) and provides a variety of motorized and non-motorized recreation opportunities. Trails are the primary improvements constructed and maintained for recreation users. In some areas, lookouts, cabins, or other structures are present as well as some evidence of management activities. Components specific to Management Area 2 are coded "MA2".

Management Area 3 (MA 3): Frontcountry

The rest of the Forest is a part of Management Area 3 (MA 3). Most of MA 3 consists of the areas with roads, trails, and structures, as well as sign of past and ongoing activities designed to actively manage the area. This MA 3 includes parts of the Gospel Hump Geographic Area and Special Interest Areas (proposed and designated). This MA provides a wide variety of recreation opportunities, both motorized and non-motorized. Components specific to Management Area 3 are coded "MA3".

Table 1 displays the acres of each Management area. Acres are dependent on Management Area allocations, which will be determined during collaboration on alternative development. Acres of each management area will vary by alternative.

Table 1. Management Areas and Acreages

MA	MA Name	Acres
1	Nationally Designated Areas	TBD
2	Backcountry	TBD
3	Frontcountry	TBD

1 Physical and Biological Ecosystems

1.1 Terrestrial Ecosystems

The forest plan direction related to the terrestrial ecosystems is designed to provide for ecological integrity and sustainability, supporting a full suite of native plant and animal species, while providing for the social and economic needs of human communities. The vegetation across the Forest has changed dramatically from historic conditions. For a variety of reasons, including past timber harvest practices that targeted large trees, introduction of non-native invasive weeds, and fire exclusion that reduced early seral conditions, current forest vegetation is less diverse than historic conditions. The plan components related to terrestrial ecosystems are proposed to guide management of National Forest Service lands so they resemble the natural range of variation and are ecologically sustainable.

1.1.1 Across the Landscape

Goals

FW-GL-TE-01. The Forest Service actively participates in Cooperative Weed Management Areas (CWMAs), which are used to determine weed treatment priorities, projects, budgets and annual programs. Public awareness is promoted using various forms of outreach through the CWMAs.

FW-GL-TE-02. The Forest Service works with federal, state, tribal, and private land managers towards an all-lands approach to management and cooperation, including efforts to mitigate threats or stressors,

provide for wildlife and fish habitat connectivity, and to provide social, economic and ecological conditions that contribute to mutual objectives.

FW-GL-TE-03. The Forest Service cooperates with state agencies, federal agencies and tribes to develop actions that lead to progress towards meeting other agencies' objectives for native and desired non-native fish and wildlife species.

Desired Conditions Forest Wide

FW-DC-TE-01. Vegetation management supports vegetation composition and structural diversity as described across broad potential vegetation type (PVT) groups in the face of changing conditions. (See Appendix B for how PVT groups are classified).

FW-DC-TE-02. Uncommon habitat elements (mineral licks, talus slopes, fractured wet bedrock, rocky outcrops, scree slopes, caves, waterfalls, geologic inclusions) support long term persistence of endemic species with narrow or vary narrow habitat specificity and limited distribution associated with these habitats.

FW-DC-TE-03. Non-native invasive weeds comprise less than 5 percent cover within plant communities across the Forest. No new invasive weed species become established in any of the plant communities on the Forest.

FW-DC-TE-04. Peatlands, including fens and bogs, have the necessary soil, hydrologic, water chemistry, and vegetative conditions to provide for continued development and resilience to changes in climate and other stressors. Peatlands support unique plant and animal species.

FW-DC-TE-05. Habitats provide nectar resources and nesting sites for a diversity of native and desirable non-native pollinators.

FW-DC-TE-06. Habitat conditions in the plan area provides ecological conditions that support the diversity of plant and animal communities and provide ecosystem integrity.

FW-DC-TE-07. The arrangement of vegetation patches range widely in size, shape and structure to provide connectivity for wildlife. Patches are juxtaposed across the landscape forming a landscape pattern consistent with natural range of variation. These patterns vary by habitat type group, slope, aspect, and topographic position. Wide-ranging species are able to move freely across and between habitats, allowing for dispersal, migration genetic interaction, and species recruitment.

Guidelines

FW-GDL-TE-01. Management activities in uncommon habitat elements described in FW-DC-TE-02 (For seeps and springs refer to aquatic plan components) should conserve the habitat to allow endemic species to persist. The purpose of this guideline is to conserve rare and endemic terrestrial plant and animal communities.

1.1.2 Forestlands

The desired conditions in this section are meant to be used in conjunction with one another and provide a picture of what the Forest should look like in the future. The "Dominance Type" and "Size Class" categories of desired conditions warrant some explanation here. Dominance types are used to describe the most prevalent tree species within a stand and do not indicate that an area should be a monoculture of one particular species. The size class desired conditions, likewise, do not indicate that a stand should consist of trees of only one particular size class. The size class is an average size of trees that should occur in an area, but recognizing that varying structure is important for ecological reasons, it is fully expected that

trees of other sizes will occur in those areas as well. This structural complexity desired within a given patch is described in the "Within-Stand Characteristics" sections.

The forested lands are divided into 4 broad potential vegetation type (PVT) groups: Warm Dry, Warm Moist, Cool Moist, and Cold. These PVT groups are aggregations of habitat types and are an expression of the type of vegetation a site can support. Further explanation is included in Appendix B and a description of each PVT Group is included below. Table 2 displays the PVT group's percentage by management area and distribution of each PVT group by percentage of the Forest.

Table 2. Potential Vegetation Type (PVT) percentage by MA and percentage of Forest

PVT Group	% in MA 1	% in MA 2	% in MA 3	% of Forest
Warm Dry	41%	19%	40%	22%
Warm Moist	26%	27%	47%	38%
Cool Moist	60%	25%	15%	24%
Cold	74%	14%	12%	11%

Along with varying by broad PVT group, forested vegetation components also vary by management area. The management areas have different management emphases for forested vegetation, so the following desired conditions vary to reflect those differences. The management emphasis of MA 1 is that natural processes and management actions that mimic natural processes are what drive changes in forested vegetation. Management Area 2 has a strong emphasis on managing for ecological restoration; and more intensive management to restore forest structure and composition is feasible here than in what is feasible in MA 1. The desired conditions for MA 2 are intended to reflect this emphasis on restoration. The emphasis for MA 3 is a blend of meeting ecological, economic, and social needs; and the components for MA 3 are designed to reflect this. In order to meet these needs, the MA 3 components are designed to be ecologically appropriate, to provide for timber production, and to provide for meeting other resource needs.

Desired Conditions Forest Wide

FW-DC-FOR-01. Aspen (*Populus tremuloides*) persists as vigorous, multi age stands over time across its range on the Forest and aspen stands cover 1% of the Forest.

FW-DC-FOR-02. ***Within-Stand Characteristics of Warmest and Driest Sites***[1]***:*** Stand density reflects the historic fire regime, which typically included frequent underburns, so stands are open and many-aged, with younger trees occurring as small even-aged groups or individuals interspersed among the larger, long-lived, trees. The overstory is dominated by large ponderosa pine and the understory dominated by native grasses, forbs, and low shrubs.

[1] This is meant to include only the warmest and driest ponderosa pine and Douglas-fir habitat types that historically experienced, almost exclusively, low severity underburns.

Figure 1. Example of Desired Within-Stand Characteristics for Warmest and Driest Sites.Photo by Z. Peterson, South Fork Clearwater River 2017.

Warm Dry PVT Group

This PVT group includes the warmest and driest sites that support forest vegetation. Forested sites are primarily in the warm/dry habitat types in the ponderosa pine (*Pinus ponderosa*), Douglas-fir (*Pseudotsuga menziesii*), and dry grand fir (*Abies grandis*) series. These sites occur at lower elevations, at mid-elevations on southerly aspects, and on soils with low moisture holding capacity. The ponderosa pine and dry Douglas-fir and grand fir forest cover types are found here.

Desired Conditions Warm Dry PVT Group

FW-DC-FOR-03. ***Composition for MA 1, MA 2, and MA3:*** When measured across each Management Area, composition of the Warm Dry PVT Group moves toward the desired dominance types in Table 3. Ponderosa pine dominance type increases on all aspects. Douglas-fir and grand fir remain as components of many stands, but these dominance types are reduced to reflect desired conditions given in Table 3. The Warm Dry PVT group is on the drier end of sites that support western larch, so the western larch

dominance type primarily increases on northerly aspects. A portion of this PVT group is dominated by seral grasses and shrubs; the table below gives desired percentages for the portion that is dominated by trees.

Table 3. Desired and current composition by dominance type for Warm Dry PVT Group

Dominance Type	MA 1 Desired Range (%)	MA 2 Desired Range (%)	MA 3 Desired Range (%)	Current Condition (%) Across the Forest[2]
Ponderosa pine	50 - 60	50 - 65	50 - 60	14
Douglas-fir	15 - 20	15 - 20	15 - 20	24
Lodgepole pine	15 -20	15 -20	15 -20	12
Western larch/Douglas-fir	1 - 2	1 - 2	1 - 2	1
Grand fir	2 - 10	2 - 10	2 - 10	26

Within-Stand Characteristics of Moister Sites within the Warm Dry PVT Group[3]:
FW-DC-FOR-04. ***Within-stand Characteristics of Moister Sites within MA 1, MA 2, and MA3:*** These stands are single or two-storied, with live legacy trees from past disturbance persisting well into the next generation. These live legacy trees and snags, which are important as habitat for cavity nesting wildlife, are primarily the largest ponderosa pine; and they are present and distributed across the PVT Group.

MA1-DC-FOR-01. ***Density of Moister Sites within MA 1*** promotes stands dominated by ponderosa pine and provides for meeting desired conditions within MA 1.

MA2-DC-FOR-01. ***Density of Moister Sites within MA 2*** may vary to promote vigorous stands dominated by ponderosa pine or other dominance types given in Table 3 and provides habitat for wildlife, provides resistance to stand replacing fire, or meeting other desired conditions within MA 2.

MA3-DC-FOR-01. ***Density of Moister Sites within MA 3*** promotes vigorous stands dominated by ponderosa pine and other dominance types given in Table 3 and provides for wildlife habitat, producing high volumes of timber, providing resistance to stand replacing fire, or meeting other desired conditions within MA 3.

FW-DC-FOR-05. ***Size Class Distribution within MA 1, MA 2, and MA3:*** When measured across each MA, the Warm Dry PVT Group consists of the distribution of size classes given in Table 4. Large live ponderosa pine trees, western larch trees, and snags 20 inches in diameter and larger are present and distributed across all classes within the Warm Dry PVT Group.

[2] Numbers at the Management Area scale are currently unavailable, so the Forest-wide value is provided to give meaning to the desired ranges. Current condition values at the Management Area scale may vary from these values. Value does not add up to 100% because about 20% of this PVT Group was classified as not having a tree dominance type and additional dominance types not shown occurred at trace amounts.
[3] This is meant to include the moister Douglas-fir and dry grand fir sites within the Warm Dry PVT group that historically experienced both low severity underburns and mixed severity fire.

Table 4. Desired and existing size class distribution for Warm Dry PVT Group

Size Class in Diameter at Breast Height (DBH)	Desired Range (%) Across MA 1	Desired Range (%) Across MA 2	Desired Range (%) Across MA 3	Current Condition (%) Across the Forest[4]
Seral grass/shrub	5 – 15	5 – 15	5 – 15	19
0 – 4.9" DBH	10 – 25	10 – 25	10 – 25	6
5 – 14.9" DBH	20 – 40	20 – 40	20-40	45
15 – 19.9" DBH	15 – 25	15 – 25	15 – 25	16
20"+ DBH	10 – 35	10 – 35	10 – 35	14

MA1 and 2 DC-FOR-01. ***Landscape Pattern and Patch Size within MA 1 and MA 2:*** Landscape and within-patch patterns reflect historic fire regimes within the types represented here, which typically included low severity underburns, mixed severity fire, and occasional stand replacing events. Patterns and patch size are guided by topography, landtype changes, and/or to meet desired conditions.

MA3-DC-FOR-02. ***Landscape Pattern and Patch Size within MA 3:*** The pattern on the landscape is a mosaic of size classes. Patches of different size classes vary in extent, consistent with typical historical fires and they are generally bounded by ridges, streams, and other topographic features. Patches of the 0 – 4.9" DBH size class contain larger live trees in patterns consistent with historic low and mixed severity fire patterns and/or addressing landtype concerns or management objectives.

Warm Moist PVT Group

This PVT group includes low-elevation upland sites with deeper soils on north and east aspects, extensive mid-elevation moist upland sites, and most low and mid-elevation wet stream bottoms, riparian benches, and toe-slopes.

Mixed mesic forest types are found here, of which the grand fir/Douglas-fir dominance type is currently the most common. Moist sites along streams and wetlands, and toe slopes are often dominated by grand fir and western redcedar (*Thuja plicata*). The greatest conifer species diversity can be found here, although most sites are now dominated by grand fir and Douglas-fir due to fire exclusion, white pine blister rust, and past harvest practices that removed early-seral species.

Desired Conditions Warm Moist PVT Group

FW-DC-FOR-06. ***Composition for MA 1, MA 2, and MA3:*** When measured across each Management Area, composition of the Warm Moist PVT Group moves toward the desired dominance types in Table 5. Western larch and ponderosa pine dominance types increase primarily on sites in the grand fir habitat type series within this PVT Group. The western larch dominance type increases on moister sites across the entire PVT Group – often on north and east aspects, and the ponderosa pine dominance type increases across the entire PVT Group on drier sites and southerly aspects. The western white pine dominance type increases primarily on sites within the western redcedar and western hemlock habitat type series. Grand fir and Douglas-fir remain a component of many stands, but as dominance types, they are reduced from current levels to trend toward the desired range given in Table 5. A portion of this PVT group is

[4] Numbers at the Management Area scale are currently unavailable, so the Forest-wide value is provided to give meaning to the desired ranges. Current condition values at the Management Area scale may vary from these values.

dominated by seral grasses and shrubs; the table below gives desired percentages for the portion that is dominated by trees.

Table 5. Desired and current composition by dominance type for Warm Moist PVT Group

Dominance Type	MA 1 Desired Range (%)	MA 2 Desired Range (%)	MA 3 Desired Range (%)	Current Condition (%) Across the Forest[5]
Ponderosa pine	5 – 20	5 – 20	10 – 20	1
Douglas-fir	5 – 10	5 – 10	2 – 5	22
Lodgepole pine	5 – 10	5 – 10	5 – 10	3
Western larch	15 – 30	15 – 30	15 – 30	1
Grand fir/western redcedar	15 – 25	15 – 25	10 – 20	55
Western white pine	20 – 35	20 – 35	25 – 40	1
Subalpine fir/Engelmann spruce	1 – 2	1 – 2	1 – 2	4

FW-DC-FOR-07. ***Within-Stand Characteristics for the Warm Moist PVT Group for MA 1, MA 2, and MA 3:*** Within-stand structure for these stands is even-aged or two-aged, with live legacy trees from previous disturbance persisting well into the next generation. These live legacy trees and snags, which are important as habitat for cavity nesting wildlife, are primarily the largest western larch, western white pine, ponderosa pine, and western redcedar; and they are present and distributed across the PVT Group.

MA1-DC-FOR-02. ***Density within MA 1*** promotes stands dominated by western white pine, western larch, and ponderosa pine and provides for meeting desired conditions within MA 1.

MA2-DC-FOR-02. ***Density within MA 2*** may vary to promote vigorous stands dominated by western white pine, western larch or other dominance types given in Table 5 and provides habitat for wildlife or meeting other desired conditions.

MA3-DC-FOR-03. ***Density within MA 3*** promotes vigorous stands dominated by western white pine, western larch, and other dominance types given in Group and provides for wildlife habitat, producing high volumes of timber, providing resistance to stand replacing fire, or meeting other desired conditions.

FW-DC-FOR-08. ***Size Class Distribution within MA 1, MA 2, and MA3:*** Across each MA, the Warm Moist PVT Group consists of the distribution of size classes given in Table 6. Live trees and snags, 20 inches in diameter and larger, are present and distributed across all classes within the Warm Moist PVT Group.

[5] Numbers at the Management Area scale are currently unavailable, so the Forest-wide value is provided to give meaning to the desired ranges. Current condition values at the Management Area scale may vary from these values. Value does not add up to 100% because about 9% of this PVT Group was classified as not having a tree dominance type and additional dominance types not shown occurred at trace amounts.

Table 6. Desired and current size class distribution for Warm Moist PVT Group

Size Class in Diameter at Breast Height (DBH)	Desired Range (%) Across MA 1	Desired Range (%) Across MA 2	Desired Range (%) Across MA 3	Current Condition (%) Across the Forest[6]
Seral grass/shrub	5 – 15	5 – 15	5 – 15	9
0 – 4.9" DBH	15 – 25	15 – 25	15 – 25	5
5 – 14.9" DBH	20 – 35	20 – 35	20 – 35	44
15 – 19.9" DBH	15 – 25	15 – 25	15 – 25	22
20"+ DBH	10 – 35	10 – 35	10 – 35	20

MA1 and MA 2-DC-FOR-02. ***Landscape Pattern and Patch Size within MA 1 and MA 2:*** Landscape and within-patch patterns reflect historic fire regimes within the types represented here, which typically included mixed severity fire and stand replacing events. Patterns and patch size are guided by topography, landtype changes, and/or to meet desired conditions.

MA3-DC-FOR-04. ***Landscape Pattern and Patch Size within MA 3:*** The pattern on the landscape is a mosaic of size classes. Patches of different size classes vary in extent, consistent with typical historical fires and they are generally bounded by ridges, streams, and other topographic features. Patches of the 0 – 4.9" DBH size class contain larger live trees in patterns consistent with historic mixed severity fire patterns and/or addressing landtype concerns or management objectives.

Cool Moist PVT Group

The Cool Moist PVT Group consists mainly of subalpine fir (*Abies lasiocarpa*), mountain hemlock (*Tsuga mertensiana*), and Engelmann spruce (*Picea engelmanii*) habitat types. These sites support the higher elevation forest types lying between the warmer uplands and the cold forest near timberline.

On more moderate sites, species diversity can be high, with Douglas-fir, western larch (*Larix occidentalis*), western white pine (*Pinus monticola*), Engelmann spruce, lodgepole pine (*Pinus contorta*), subalpine fir, and grand fir forming various admixtures. Sites are generally too cool for western hemlock (*Tsuga heterophylla*), grand fir, and western redcedar to play a dominant role. Drier sites support more Douglas-fir, while frost-prone sites support the lodgepole pine dominance type.

Desired Conditions Cool Moist PVT Group

FW-DC-FOR-09. ***Composition for MA 1, MA 2, and MA3:*** When measured across each Management Area, composition of the Cool Moist PVT Group moves toward the desired dominance types in Table 7. On moderate sites within this PVT Group, Douglas-fir, western white pine and western larch dominate after stand-replacing disturbances; lodgepole pine and Engelmann spruce increase on sites that are colder and more frost-prone; and whitebark pine is present and may dominate after disturbance on the coldest sites. Riparian sites tend to be dominated by Engelmann spruce and subalpine fir, but include admixtures of grand fir, western white pine, western redcedar, and mountain hemlock. Whitebark pine is common on the colder habitat types within this PVT Group, either as pure stands or in mixtures primarily with lodgepole pine, subalpine fir, Engelmann spruce, and alpine larch. A portion of this PVT group is

[6] Numbers at the Management Area scale are currently unavailable, so the Forest-wide value is provided to give meaning to the desired ranges. Current condition values at the Management Area scale may vary from these values.

dominated by seral grasses and shrubs; the table below gives desired percentages for the portion that is dominated by trees.

Table 7. Desired current composition by dominance type for Cool Moist PVT Group

Dominance Type	MA 1 Desired Range (%)	MA 2 Desired Range (%)	MA 3 Desired Range (%)	Current Condition (%) Across the Forest[7]
Douglas-fir	10 – 15	10 – 15	5 – 10	9
Lodgepole pine	25 – 30	20 – 25	25 – 35	18
Western larch	5 – 10	5 – 10	10 – 20	0
Grand fir/western redcedar	5 – 10	5 – 10	1	3
Western white pine	0 – 5	0 – 5	5 – 15	0
Subalpine fir/Engelmann spruce	15 – 35	15 – 35	15 – 35	52
Whitebark pine	5 – 15	10 – 20	2 – 10	0
Mountain hemlock	5 – 10	5 – 10	5 – 10	4

FW-DC-FOR-10. ***Within-Stand Characteristics for the Cool Moist PVT Group within MA 1, MA 2, and MA 3:*** Where subalpine fir and Engelmann spruce dominate, stand level structure is often multi-storied. Where other species dominate, structure is even-aged or two-aged, with live legacy trees and snags from previous disturbance persisting well into the next generation. These live legacy trees and snags, which are important as habitat for cavity nesting wildlife are primarily the largest western larch, western white pine, Douglas-fir, and whitebark pine; and they are present and distributed across the PVT Group. Whitebark pine of all sizes is present on the colder habitat types within this PVT Group.

MA1-DC-FOR-03. ***Density within MA 1*** is consistent with promoting the desired dominance types and provides for meeting desired conditions within MA 1.

MA2-DC-FOR-03. ***Density within MA 2*** may vary to promote vigorous stands dominated by western white pine, western larch or other dominance types given in Table 7 and provides habitat for wildlife or meeting other desired conditions.

MA3-DC-FOR-05. ***Density within MA 3*** promotes vigorous stands of the dominance types given in Table 7 and provides for wildlife habitat, producing high volumes of timber, providing resistance to stand replacing fire, or meeting other desired conditions.

FW-DC-FOR-11. ***Size Class Distribution within MA 1, MA 2, and MA 3:*** Across each MA, the Cool Moist PVT Group consists of the distribution of size classes given in Table 8. Live trees and snags, 20

[7] Numbers at the Management Area scale are currently unavailable, so the Forest-wide value is provided to give meaning to the desired ranges. Current condition values at the Management Area scale may vary from these values. Value does not add up to 100% because about 12% of this PVT Group was classified as not having a tree dominance type and additional dominance types not shown occurred at trace amounts.

inches in diameter and larger, are present and distributed across all classes within the Cool Moist PVT Group.

Table 8. Desired and current size class distribution for Cool Moist PVT Group

Size Class in Diameter at Breast Height (DBH)	Desired Range (%) Across MA 1	Desired Range (%) Across MA 2	Desired Range (%) Across MA 3	Current Condition (%) Across the Forest[8]
Seral grass/shrub	5 – 20	5 – 20	5 – 20	12
0 – 4.9" DBH	15 – 40	15 – 40	15 – 40	7
5 – 14.9" DBH	20 – 40	20 – 40	20 – 40	57
15 – 19.9" DBH	10 – 35	10 – 35	10 – 35	14
20"+ DBH	5 – 10	5 – 10	5 – 10	9

MA1 and MA2-DC-FOR-03. ***Landscape Pattern and Patch Size within MA 1 and MA 2:*** Landscape and within-patch patterns reflect historic fire regimes within the types represented here, which typically included mixed severity fire and stand replacing events. Patterns and patch size are guided by topography, landtype changes, and/or to meet desired conditions.

MA3-DC-FOR-06. ***Landscape Pattern and Patch Size within MA 3:*** The pattern on the landscape is a mosaic of size classes. Patches of different size classes vary in extent, consistent with typical historical fires and they are generally bounded by ridges, streams, and other topographic features. Patches of the 0 – 4.9" DBH size class contain larger live trees in patterns consistent with historic mixed severity fire patterns and/or addressing landtype concerns or management objectives.

Cold PVT Group

The Cold PVT Group consists of the coldest, high elevation sites supporting tree growth in the subalpine fir, mountain hemlock, whitebark pine (*Pinus albicaulis*), and alpine larch (*Larix lyallii*) series. Though some of the sites on the Forest may have alpine larch on them, alpine larch-dominated stands generally do not occur in great enough abundance for it to be classified as one of the desired dominance types on the Forest. Sites in the Cold PVT group are generally too cold for Douglas-fir, western larch, and western white pine to play any substantial role. Whitebark pine has the potential to be a major stand component after fire and on the coldest sites.

Desired Conditions Cold PVT Group

MA1-DC-FOR-12. ***Composition for MA 1, MA 2, and MA 3:*** When measured across each Management Area, composition of the Cold PVT Group moves toward the desired dominance types in Table 9. A portion of this PVT group is dominated by seral grasses and shrubs; the table below gives desired percentages for the portion that is dominated by trees.

[8] Numbers at the Management Area scale are currently unavailable, so the Forest-wide value is provided to give meaning to the desired ranges. Current condition values at the Management Area scale may vary from these values.

Table 9. Desired and Current Compositions by Dominance Type for Cold PVT Group

Dominance Type	MA 1 Desired Range (%)	MA 2 Desired Range (%)	MA 3 Desired Range (%)	Current Condition (%) Across the Forest[9]
Lodgepole pine	15 – 20	20 – 25	30 – 35	38
Subalpine fir/Engelmann spruce	25 – 35	15 – 20	15 – 20	40
Whitebark pine	35 – 50	35 - 50	35 – 50	0
Douglas-fir/western larch	0 - 5	0 – 5	0 - 5	2
Mountain hemlock	5 – 10	5 – 15	5 – 10	9

MA1 and MA2-DC-FOR-04. ***Within-Stand Characteristics for the Cold PVT Group within MA 1 and MA 2:*** Where subalpine fir and Engelmann spruce dominate, stand level structure is often multi-storied. Where other species dominate, structure is even-aged or two-aged, with live legacy trees and snags from previous disturbance persisting well into the next generation. These live legacy trees and snags are present and distributed across the PVT group. Whitebark pine of all sizes is present on the colder habitat types within this PVT group.

MA3-DC-FOR-07. ***Within-Stand Characteristics for the Cold PVT Group within MA 3:*** Where subalpine fir and Engelmann spruce dominate, stand level structure is often multi-storied. Where other species dominate, structure is even-aged or two-aged, with live legacy trees and snags from previous disturbance persisting well into the next generation. These live legacy trees and snags, which are important as habitat for cavity nesting wildlife are primarily the largest western larch, Douglas-fir, and whitebark pine; and they are present and distributed across the PVT Group. Whitebark pine of all sizes is present on the colder habitat types within this PVT Group.

MA1-DC-FOR-04. ***Density within MA 1*** is consistent with promoting the desired dominance types and provides for meeting desired conditions within MA 1.

MA2-DC-FOR-04. ***Density within MA 2*** may vary to promote vigorous stands dominated by dominance types given in Table 9 and provides habitat for wildlife, or meeting other desired conditions.

MA3-DC-FOR-08. ***Density within MA 3*** promotes vigorous stands of the whitebark pine and other dominance types given in Table 9 and provides for wildlife habitat, producing timber, providing resistance to stand replacing fire, or meeting other desired conditions.

FW-DC-FOR-13. ***Size Class Distribution within MA 1, MA 2, and MA 3:*** Across each MA, the Cold PVT Group consists of the distribution of size classes given in Table 10. Live trees and snags, 20 inches in diameter and larger, are present and distributed across all size classes within the Cold PVT Group. The desired distribution of size classes is given in Table 10.

[9] Numbers at the Management Area scale are currently unavailable, so the Forest-wide value is provided to give meaning to the desired ranges. Current condition values at the Management Area scale may vary from these values. Value does not add up to 100% because about 9% of this PVT Group was classified as not having a tree dominance type and additional dominance types not shown occurred at trace amounts.

Table 10. Desired and current size class distribution for Cold PVT Group

Size Class in Diameter at Breast Height (DBH)	Desired Range (%) Across MA 1	Desired Range (%) Across MA 2	Desired Range (%) Across MA 3	Current Condition (%) Across the Forest[10]
Seral grass/shrub	5 – 20	5 – 20	5 – 20	9
0 – 4.9" DBH	30 – 40	30 – 40	30 – 40	10
5 – 14.9" DBH	5 – 20	5 – 20	5 – 20	72
15 – 19.9" DBH	25 – 50	25 – 50	25 – 50	7
20"+ DBH	0 – 5	0 – 5	0 – 5	2

MA1 and MA2-DC-FOR-05. ***Landscape Pattern and Patch Size within MA 1 and MA 2:*** Landscape and within-patch patterns reflect historic fire regimes within the types represented here, which typically included mixed severity fire and stand replacing events. Patterns and patch size are guided by topography, landtype changes, and/or to meet desired conditions.

MA3-DC-FOR-09. ***Landscape Pattern and Patch Size within MA 3:*** The pattern on the landscape is a mosaic of size classes. Patches of different size classes vary in extent, consistent with typical historical fires and they are generally bounded by ridges, streams, and other topographic features. Patches of the 0 – 4.9" DBH size class contain larger live trees in patterns consistent with historic mixed severity fire patterns and/or addressing landtype concerns or management objectives.

Across All PVT Groups

Guidelines for MA2 and MA3 Across All PVT Groups

MA2 and MA3-GDL-FOR-06. To ensure sufficient organic materials to maintain nutrient cycling and soil biology, and to provide habitat structure for various terrestrial wildlife, the levels listed in Table 11 of downed coarse woody material (greater than 3 inches) should be retained onsite following regeneration harvest and fuels management/site preparation activities. The following amounts are recommended by Graham et al (1994) and are intended to give general direction for retention of coarse woody debris within PVT groups. If sufficient downed coarse woody material is unavailable, standing retained trees and snags may be counted toward meeting the numbers in the table below. Exceptions may occur in areas where a site-specific analysis indicates that leaving the quantities listed in Table 11 would create unacceptable fuel loads near administrative sites, sensitive natural or historical resources, or within WUI zones. These numbers are given as averages across treated areas; distribution may be somewhat clumpy, but coarse woody material should be well distributed across units.

Table 11. Coarse woody materials to maintain by PVT Group

PVT Group	Tons/Acre
Warm Dry	6-14
Warm Moist	17-33
Cool Moist	9-18
Cold	7-24

[10] Numbers at the Management Area scale are currently unavailable, so the Forest-wide value is provided to give meaning to the desired ranges. Current condition values at the Management Area scale may vary from these values.

Desired Conditions for MA 3 Across All PVT Groups

MA3-DC-FOR-10. Amounts of ponderosa pine, western larch, western white pine, and whitebark pine old growth are maintained or increased from existing amounts. Amounts of western redcedar, pacific yew, and western hemlock old growth are maintained.

MA3-DC-FOR-11. Snags are present across forest lands, contributing to diversity of structure and habitat. Snags are unevenly distributed and dynamic over time, with highest densities occurring in burned areas and those infested by insects. The lowest densities of snags occur along roads and in developed sites or other areas where the concern for human safety is elevated. A range of decay classes is represented.

MA3-DC-FOR-12. Timber harvest has a dominant role in affecting composition, structure, and pattern of vegetation. These management activities trend the vegetation toward desired conditions described in the terrestrial ecosystems section. Although natural ecological processes and disturbances are still present, they are influenced more by human activity in this MA than in others.

Standards for MA 3 Across All PVT Groups

MA3-STD-FOR-01. Within ponderosa pine, western larch, western white pine, pacific yew, western redcedar, western hemlock, and whitebark pine old growth stands, vegetation management activities shall not be authorized if the activities would likely modify the characteristics of the stand to the extent that the stand would no longer meet the definition of old growth (see glossary for old growth definition) over the long term.

Guidelines for MA 3 Across All PVT Groups

MA3-GDL-FOR-01. Vegetation management activities may be authorized in ponderosa pine, western larch, western white pine, pacific yew, western redcedar, western hemlock, and whitebark pine old growth stands only if the activities are designed to increase the resistance and resiliency of the stand to disturbances or stressors, and if the activities are not likely to immediately modify stand characteristics to the extent that the stand would no longer meet the definition of old growth (see the glossary for the definitions of resistance and resilience) over the long term.

MA 3-GDL-FOR-02. To prevent fragmentation of existing ponderosa pine, western larch, western white pine, pacific yew, western redcedar, western hemlock, and whitebark pine old growth patches, permanent road construction should be avoided in these old growth types unless a site specific analysis determines the route through old growth to be the optimum location.

MA 3-GDL-FOR-03. A stand categorized as one of the non-desired old growth types should not be regenerated if it can be converted to a desired old growth type to meet desired conditions in MA3-DC-FOR-10.

MA3-GDL-FOR-04. In order to achieve desired minimum snag amounts, snags should be retained to achieve the amounts given in Table 12 when assessed across an entire project area or watershed. If sufficient snags are not available to meet the numbers below, retain additional live trees ≥15" DBH.

The distribution of snags does not need to be uniform – some areas may have more snags, others may have fewer or none (example given in Figure 2).

Table 12. Minimum snags per acre across a project area or watershed

Dominance Group	Broad PVT Group	Minimum Number of Snags per acre ≥15" DBH	Additional Snags per Acre ≥20" DBH	Total Minimum Number of Snags per Acre

Lodgepole pine[11]	All	1	1	2
All Other Groups	Warm Dry	2	1	3
	Warm Moist	3	3	6
	Cool Moist and Cold	3	1	4

Figure 2. Example of Uneven Distribution of Snags. Photo by M. Chin, Selway River, 2017

MA3-GDL-FOR-05 Where present, a minimum of 3 live trees per acre ≥15" DBH should be retained within harvest units to act as future snags. Trees retained for reasons other than snag recruitment count toward this number. The minimum is meant to be an average across an entire timber sale unit and does not mean that 3 live trees must be retained on every acre.

MA3-GDL-FOR-06. Where safety permits, non-merchantable snags should be retained to benefit wildlife.

1.1.3 Meadows, Grasslands, and Shrublands

The Nez Perce-Clearwater National Forests contain a mosaic of forest, grassland, meadows and shrubland vegetation. Grasslands, meadows, and shrublands support native plant communities and forage for animals throughout the planning area.

Desired Conditions

FW-DC-GS-01. Bluebunch Wheatgrass Habitat Type Groups are dominated by native bunchgrasses, while conifers are absent or occur as scattered individuals. Dominant vegetation includes bluebunch wheatgrass *(Pseudoroegneria spicata)* and Sandburg's bluegrass *(Poa secunda)*, along with a variety of

[11] Lodgepole pine is only the dominance type here- this does not mean that when harvesting in lodgepole pine stands that lodgepole pine must be left as snags. In many cases, western larch and Douglas-fir occur as relict trees and snags mixed with lodgepole. If these or other relict trees exist within the lodgepole dominance group, they may be retained to meet these numbers.

native forbs, including arrowleaf balsamroot *(Balsamorhiza sagittata),* lupine *(Lupinus sericeus)*, phlox *(Phlox longifolia.)*, and yarrow *(Achillea millefolium).*

FW-DC-GS-02. Fescue Habitat Type Groups are dominated by native grasses and sedges, including Idaho fescue *(Festuca idahoensis)*, prairie junegrass *(Koeleria macrantha)*, Sandburg's bluegrass, western needlegrass *(Achnatherum occidentale),* elk sedge *(Carex garberi),* Hood's sedge *(Carex hoodii)* and assorted native forbs, including cinquefoil *(Potentilla glandulosa.)*, pearly pussytoes *(Antennaria anaphaloide)* buckwheat *(Lomatium triternatum),* biscuitroot *(Eriogonum heracleoides)*, pinkfairies *(Clarkia pulchella),* and geum *(Geum triflorum.).* Conifers are absent or occur as scattered individuals.

FW-DC-GS-03 Xeric Shrubland Habitat Type Groups are dominated by an over story of mountain mahogany *(Cercocarpus ledifolius),* hackberry *(Celtis occidentalis),* and smooth sumac *(Rhus glabra).* The understory vegetation is comprised of a variety of native grasses and forbs, including those species occurring within the Bluebunch Wheatgrass Habitat Type Groups. Conifers are absent or occur as scattered individuals.

FW-DC-GS-04. Wetland Graminoid and Riparian Shrub Habitat Groups are dominated by native graminoids, such as water sedge *(Carex aquatilis)* and tufted hairgrass *(Deschampsia cespitosa)* and a variety of native forbs. Native shrubs include willow *(Salix spp.),* dogwood *(Cornus spp.)* and alder *(Alnus spp.).*

FW-DC-GS-05. Subalpine Herbaceous and Shrub Habitat Groups are dominated by native grasses, sedges, forbs, and shrubs including Idaho fescue, prairie junegrass, Cusick's bluegrass *(Poa cusickii*), Hood's sedge, nettleleaf horsemint *(Agastache urticifolia),* woodland strawberry, *(Fragaria vesca),* shrubby cinquefoil *(Potentilla fruticosa)* and mountain heather *(Cassiope spp.).*

FW-DC-GS-06. Mollisol soils are dominated by native grasses, forbs and shrubs and are largely free of conifer trees. Early seral conifer species may occur as scattered individuals. Grasslands and shrublands on mollisol soils do not decrease in size over time from conifer encroachment.

FW-DC-GS-07. Areas of naturally occurring non-forested vegetation are not reduced or encroached by forested vegetation.

FW-DC-GS-08. Dasynotus (*Dasynotus daubenmirei*) and Pacific dogwood (*Cornus nuttallii*) persists in transitional shrubland and forested habitats throughout their ranges in the Middle Fork Clearwater River and its major tributaries.

FW-DC-GS-09. Douglas clover (*Trifolium douglasii*) and sticky goldenweed (*Pyrrocoma hirta* var. *sonchifolia*) persists in seasonally moist meadows over basalt on the Palouse Ranger District, particularly in the headwaters of the Potlatch River.

1.1.4 Soil Quality and Productivity

Soils are an integral part of ecosystems, their function, and the above and below ground interaction of organisms. These functions all contribute to ecological resilience. The National Forest Management Act states that management activities on NFS lands will not produce substantial and permanent impairment of soil productivity. Productivity is maintained by establishing soil quality standards. Since 1999, physical soil disturbance has been the focus of soil management on NFS lands. In 2010, FS Manual Chapter 2550 Soil Management was revised at the national level. The emphasis of soil management was changed to include long-term soil quality and ecological function. The manual defines six soil functions: soil biology, soil hydrology, nutrient cycling, carbon storage, soil stability and support, and filtering and buffering. The objectives of the national direction on NFS lands are 1) to maintain or restore soil quality, and 2) to manage resource uses and soil resources to sustain ecological processes and function so that desired

ecosystem services are provided in perpetuity. In order to provide for multiple uses and ecosystem services in perpetuity, these six soil functions need to be active. The following components do not apply to intensively developed sites such as mines, developed recreation sites, administrative sites, rock quarries, trails or system roads. (R1 Supplement FSM 2500-2014-1) For other components related to soils see MA2 and MA3-GDL-FOR-06, FW-STD-TBR-02, FW-DC-WTR-07.

Desired Conditions

FW-DC-SOIL-01. Soil productivity and function contributes to the long-term resilience of ecosystems. Soil physical, biological, and chemical functions reflect the site characteristics of the ecological type.

FW-DC-SOIL-02. Soil organic matter and down woody material support healthy microbial populations, protect soil from surface erosion, facilitate soil moisture retention, provide nutrients, and maintain soil development and biochemical processes.

FW-DC-SOIL-03. Andic soils are intact and retain unique properties, including low bulk density and high water and nutrient holding capacity.

Standards

FW-STD-SOIL-01. Land management activities shall be designed and implemented in a manner that conserves soil physical, chemical and biological functions, and improves these functions where impaired. Limited short term or site-scale effects from activities may be acceptable when they support long-term benefits to soil resources.

FW-STD-SOIL-02. In order to maintain long-term soil productivity, impaired soil function created through management activities, including fire suppression, shall be rehabilitated to reestablish soil function to the appropriate site potential.

FW-STD-SOIL-03. Project specific best management practices and design features shall be incorporated into land management activities as a principle mechanism for protecting soil resources.

Guidelines

FW-GDL-SOIL-01. To maintain soil stability, ground-disturbing management activities should not occur on field verified mass movement areas if they have the potential to trigger a slope failure. Vegetation management activities may be authorized to provide for long-term slope stability.

FW-GDL-SOIL-02. Project activities should provide sufficient effective ground cover (litter, fine and coarse wood material, or vegetation) with a post-implementation target of 85 percent aerial extent to retain soil moisture, support soil development, provide nutrients, and reduce soil erosion. The depth and distribution of organic matter reflects the amounts that occur for the local ecological type and natural wildland fire regime.

Guidelines for MA 2 and MA 3

MA2 and MA3-GDL-SOIL-01. Ground-based equipment used for vegetation management should only operate on slopes less than 45 percent to protect soil quality. Log skidding equipment should only operate on slopes less than 40 percent to limit detrimental soil disturbance. Exceptions can be authorized where soil, slope and equipment are determined appropriate to maintain soil functions.

MA2 and MA3-GDL-SOIL-02. To limit additional soil disturbance, existing or past disturbed areas should be utilized before creating new soil disturbance for temporary roads, skid trails, or landings.

MA2 and MA3-GDL-SOIL-03. When conducting management activities that disturb soil, areas of impaired soil function from past management activities should be treated in order to restore long-term soil productivity and function.

MA2 and MA3-GDL-SOIL-04. When conducting management activities that disturb soil, avoid permanent soil impairment that results in loss of long term soil productivity on soils that have verified high soil burn severity.

MA2 and MA3-GDL-SOIL-05. After a road is decommissioned or after cessation of management activities on temporary roads, soil function appropriate to the site potential shall be restored, using demonstrably effective methods.

1.1.5 Fire

Wildland fire is an essential ecological function in the Nez Perce – Clearwater National Forests fire-adapted ecosystems. Balancing the safe and effective management of wildland fire to maintain and restore ecological integrity with the protection of communities, valued resources, and assets within and around the national forest forms the core challenge of wildland fire management. This can be accomplished by implementing a coordinated risk management approach to build landscapes that are resilient to fire-related disturbances and preparing for and executing a safe, effective, and efficient response to fire.

There are two types of wildland fire: prescribed fires (planned ignitions) and wildfires (unplanned ignitions). Prescribed fires are ignited by a management action and are designed to meet specific land management objectives. Wildfires are those not ignited by management actions. Some wildfires may be managed to meet specific land management objectives.

Goals

FW-GL-FIRE-01. ***Fire adapted communities:*** Human populations and infrastructure within and adjacent to the Nez-Perce Clearwater National Forests can withstand a wildfire without loss of life and property.

FW-GL-FIRE-02. ***Wildfire response:*** The Nez Perce Clearwater National Forest, local, state, tribal, and other Federal agencies support one another with wildfire response, including engagement in collaborative planning and the decision making processes that take into account all lands and recognize the interdependence and statutory responsibilities among jurisdictions. All jurisdictions that are impacted by wildfire participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.

FW-GL-FIRE-03.Community leaders, service providers, business owners, homeowners and permittees who are invested in or adjacent to the forest are knowledgeable about wildfire risk. They understand the need to adapt their communities, properties, and infrastructure to wildfire, while recognizing that wildland fire is an ecological process. The maintenance of defensible space, fire resistant buildings and the reduction of the potential fire behavior characteristics around community assets that allows direct suppression tactics are examples of adapting to wildfire.

FW-GL-FIRE-04. Wildland fire is accepted both internally and by the public as a necessary process integral to the sustainability of the forest's fire-adapted ecosystems.

FW-GL-FIRE-05. When wildfire occurs, appropriate response strategies will be developed based on the risk considerations of life, safety and potential resource impacts and with the participation of other responsible agencies, authorities, and jurisdictions as appropriate.

Desired Condition

FW-DC-FIRE-01. ***Restore and maintain landscapes***: Landscapes across the Nez Perce-Clearwater National Forests are resilient to fire-related disturbances in accordance with management objectives.

FW-DC-FIRE-02. Fire management activities reduce the risk of loss of life, damage to property or ecosystem function. Firefighter and public safety is the first priority in every fire management activity.

FW-DC-FIRE-03. The full range of fire management activities, including wildland fires (prescribed fire and wildfire), are recognized and used by forest administrators as an integral part of achieving ecosystem sustainability, including interrelated ecological, economic and social components such as improved ecosystem resilience and wildlife habitat, protection of property, other values at risk, and public safety.

FW-DC-FIRE-04. Wildland fires burn with a range of intensity, severity, and frequency that allows ecosystems to function in a healthy and sustainable manner and meets desired conditions for other resources.

FW-DC-FIRE-05. Wildfire occurs at smaller scales and lesser severities in areas where resource objectives and infrastructure limit the desirability of a wildland fire event. Hazardous fuels are maintained within these areas to promote low flame lengths that allow for safe, effective fire management opportunities.

FW-DC-FIRE-06. Natural fuel conditions emulate the structure, species mix, spatial pattern, extent and resiliency of the historic fire regime of the area.

FW-DC-FIRE-07. Fire management uses an all lands, landscape approach, which is risk-based, consistent with the current national policy, guidance, strategy and authorities, responsive to the latest fire and social sciences and adaptable to rapidly changing conditions.

FW-DC-FIRE-08. Hazardous fuel accumulations are mitigated adjacent to private land and infrastructure where feasible so that fires originating on National Forest System Lands have the opportunity to provide fire managers with safe feasible opportunities to achieve resource protection measures before crossing on to other ownerships.

Standards

FW-STD-FIRE-01. When planning projects where high severity wildfire events are not desirable, i.e. Wildland Urban Interface, administrative sites, and permitted infrastructure, design treatments to remove or rearrange material necessary to achieve the following outcomes under the 90% weather conditions: achieve an average flame length of 4 feet or less OR surface fire behavior.

FW-STD-FIRE-02. When planning projects where resource objectives and infrastructure limit the desirability of a wildfire fire event i.e. Wildland Urban Interface, administrative sites, and permitted infrastructure. Snags are absent or in very low densities to maximize firefighter safety and minimize the likelihood of spotting in areas where firefighters are likely to work, in close proximity to structures, administration sites, permitted infrastructure, and along roads that could be used for escape routes by firefighters and the public.

Guidelines

FW-GDL-FIRE-01. Strategy and tactics take an opportunistic approach to fuels management. Take advantage of wildland fire occurrence and wherever possible, connect wildland fires to fuels treatments, forest health, and wildlife habitat improvement projects.

FW-GDL-FIRE-02. To prevent expansion of invasive weeds, planned ignitions in areas highly susceptible to weed invasion should be planned and implemented with design features to address the spread of invasive weeds

FW-GDL-FIRE-03. When rehabilitating areas burned by wildfire and affected by wildfire suppression, measures should address invasive weed management as part of post-fire habitat restoration.

1.2 Aquatic Ecosystems

The forest plan direction related to the aquatic ecosystems is designed to move towards recovery of fish listed under the Endangered Species Act through restoration and conservation of designated critical habitat and streams potentially affecting designated critical habitat, across the planning area. Direction is also intended to conserve and restore habitat for aquatic species of conservation concern (SCC), to prevent future listings, as well as meet Clean Water Act requirements.

1.2.1 Water and Aquatic Resources

Goals

FW-GL-WTR-01. The Nez Perce-Clearwater National Forests build and maintain partnerships to fund and implement projects that result in improved watershed and stream conditions.

FW-GL-WTR-02. The Nez Perce-Clearwater National Forests cooperate with appropriate agencies to address the expansion of aquatic invasive species.

FW-GL-WTR-03. Watershed restoration projects promote the long-term ecological integrity of ecosystems and conserve the genetic integrity of native species.

FW-GL-WTR-04. The Nez Perce-Clearwater National Forests coordinate with the Nez Perce Tribe, Idaho Department of Fish and Game, National Marine Fisheries Service, and other governmental organizations to plan and implement actions that contribute to the restoration and recovery of anadromous fisheries and their habitat.

Desired Conditions

FW-DC-WTR-01. National Forest System lands provide the distribution, diversity, and complexity of watershed and landscape-scale features including disturbance regimes and the aquatic and riparian ecosystems to which species, populations, and communities are uniquely adapted. Watersheds and associated aquatic ecosystems retain their inherent resilience to respond and adjust to disturbances, including climate change, without long-term, adverse changes to their physical or biological integrity.

FW-DC-WTR-02. Spatial connectivity exists within the stream network. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact habitat refugia. These network connections provide chemically and physically unobstructed routes, other than natural barriers, to areas critical for fulfilling life history requirements of aquatic, riparian-associated, and many upland species of plants and animals.

FW-DC-WTR-03. Habitat and ecological conditions support populations of native aquatic and riparian associated plant and animal species.

FW-DC-WTR-04. Aquatic habitats across the Forests are diverse, with channel characteristics and water quality reflective of the climate, geology, and natural vegetation of the area. Stream habitat features, such as large woody material, percent pools, residual pool depth, median particle size, and percent fines are

within reference ranges as defined by agency monitoring, when evaluated at the Forest, basin, and/or subbasin scale.

FW-DC-WTR-05. Aquatic systems and riparian habitats express physical integrity, including physical integrity of shorelines, banks, and bottom configurations, within their desired range of variation.

FW-DC-WTR-06. Water quality, including groundwater, meets or exceeds applicable state water quality standards, fully supports designated beneficial uses and are of sufficient quality to support surrounding communities, municipal water supplies, and natural resources. The Forest has no documented lands or areas that are delivering water, sediment, nutrients, and/or chemical pollutants that would result in conditions that violate the State of Idaho's water quality standards, TMDLS, or is permanently above natural or background levels.

FW-DC-WTR-07. The sediment regime including timing, volume, rate, and character of sediment input is within the range of natural variation. Sediment delivery to streams is of the types, quantities, and rates that support the natural instream sediment transport rates and instream sediment substrate composition.

FW-DC-WTR-08. Instream flows are sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows are within the natural range of variation. Stream flow regimes maintain riparian ecosystems, and natural channel and floodplain dimensions.

FW-DC-WTR-09. The timing, variability, and duration of floodplain inundation are within the natural range of variation. The distribution of channels with floodplain connectivity in managed watersheds is comparable to reference watersheds of similar size and geology.

FW-DC-WTR-10. Groundwater dependent ecosystems, including peatlands, bogs, fens, wetlands, seeps, springs, riparian areas, groundwater-fed streams and lakes, and groundwater aquifers, persist in size and seasonal and annual timing and exhibit water table elevations within the natural range of variation. Surface and groundwater flows provide late-season stream flows, cold water temperatures, and sustain the function of surface and subsurface aquatic ecosystems.

FW-DC-WTR-11. Non-forested areas in and surrounding wetlands are composed of plant and animal communities that support and contribute to wetland ecological and habitat diversity.

FW-DC-WTR-12. Beavers play an important role in geomorphic settings where their activities historically influenced ground water, surface water, and aquatic habitat complexity.

FW-DC-WTR-13. Aquatic ecosystems are free of invasive species.

FW-DC-WTR-14. Non-native brook trout populations have not expanded and have reduced abundance in streams and lakes where their presence is causing undesirable effects to native species.

Standards

FW-STD-WTR-01. New stream diversions and associated ditches shall have screens placed on them to prevent capture of fish and other aquatic organisms.

FW-STD-WTR-02. Project-specific Best Management Practices, including State of Idaho and National BMPs, shall be incorporated as a principle mechanism for controlling non-point pollution sources, to meet soil and watershed desired conditions, and to protect beneficial uses.

FW-STD-WTR-03. Portable pump set-ups shall include containment provisions for fuel spills and fuel containers shall have appropriate containment provisions.

FW-STD-WTR-04. In streams not meeting desired conditions for substrate fine sediment, when evaluated at the subwatershed scale (HUC 12), projects that could result in measurable increase in substrate fine sediment shall include measures that result in a long term net decrease of sediment yield over existing levels.

Guidelines

FW-GDL-WTR-01. In order to restore watersheds, management activities in watersheds with approved total maximum daily loads (TMDLs) should be designed to comply with the TMDL load allocations.

FW-GDL-WTR-02. To maintain stream channel stability and aquatic habitat, large woody debris should not be cut and/or removed from stream channels unless it threatens critical infrastructure, or public safety.

FW-GDL-WTR-03. When reconstructing or conducting maintenance on existing stream diversions, screens should be installed to prevent capture of fish and other aquatic organisms.

FW-GDL-WTR-04. When drafting water from streams, pumps should be screened to prevent capture of fish and aquatic organisms. During the spawning season for native fish, pumping sites should be located away from spawning gravels.

FW-GDL-WTR-05. To protect spawning or staging fish, eggs, and embryos, instream activities, and those within the inner Riparian Management Zone (as defined in Table 14), that may disturb native salmonids, or have the potential to directly deliver sediment to their habitats, should be limited to times outside of spawning and incubation seasons for those species.

FW-GDL-WTR-06. To prevent the introduction of non-native species, equipment that comes in contact with a water body should be inspected and cleaned for aquatic invasive species prior to use in a water body or when moving between subbasins (HUC 8) during non-emergency operation, including pumps used to pull water from water bodies (draft), water tenders, and helicopter buckets.

MA3-GDL-WTR-07. To meet desired conditions for watersheds and streams, particularly FW-DC-WTR-08, management activities should be designed to reduce stream channel alteration when peak flows exceed 10 percent, when evaluated at the subwatershed scale (HUC12).

MA 3-GDL-WTR-08. To prevent stream channel alteration, actions that increase peak stream flow greater than 10 percent in 1st and 2nd order streams with channel types sensitive to channel substrate and streambank erosion should be designed to meet desired condition FW-DC-WTR-08.

1.2.2 Conservation Watershed Network

The Conservation Watershed Network components are intended to provide a pattern of protection across the landscape in which the habitat of migratory salmonids receives special attention and treatment. HUC12 watersheds with stream habitat meeting desired conditions, and with strong local populations, are expected to function as refugia and a source of colonizing fish for adjacent HUC12 watersheds with habitat not meeting desired conditions. Adjacent HUC12 watersheds with habitat not meeting desired conditions, with high potential for restoration and fish production, are included in the network and are expected to offer future habitat suitable for population expansion after desired conditions are met.

Watersheds included in the Conservation Watershed Network are intended to replace those previously identified as Key or Priority under guidance found in PACFISH (1995) and INFISH (1995).

Table 13. Proposed Conservation Network Watersheds – To Replace PACFISH/INFISH Key/Priority Watershedscontains the updated list of HUC12 watersheds proposed to be included as Conservation Network Watersheds, in which achievement of desired conditions for aquatic resources is expected to be

emphasized, summarized by subbasin (HUC8) and HUC10. These watersheds would replace PACFISH/INFISH priority watersheds.

Criteria used to identify these watersheds included the following:

1) Designated critical habitat for one or more ESA listed species over large portions of the stream network (Columbia River bull trout, Snake River steelhead trout, and/or Snake River spring/summer chinook salmon)
2) A local bull trout population identified in the final Columbia River Bull Trout Recovery Plan (USDI-FWS 2016).
3) A major or minor spawning area for Snake River steelhead trout and/or Snake River spring/summer chinook salmon identified in the draft Snake River Recovery Plan (NMFS 2016).
4) 1980/2040 Climate Shield modeled reaches for bull trout – based on Isaak et al. (2015)
5) Municipal watershed
6) Important spawning and rearing habitat for one or more aquatic species
7) Isolated allopatric westslope cutthroat trout population with high genetic integrity
8) Important spawning habitat for kokanee (Lower North Fork Clearwater subbasin only)

Table 13. Proposed Conservation Network Watersheds – To Replace PACFISH/INFISH Key/Priority Watersheds

HUC8	HUC10	HUC12	HUC12 Acres - Total	HUC12 Acres – FS Only
Lower North Fork Clearwater	NF Clearwater River – Beaver Creek	Isabella	19,769	19,769
		Little NF Clearwater - Minnesoka	22,353	18,355
	Elk Creek	Upper Elk	26,983	21,846
Upper North Fork Clearwater	Skull Creek	Upper Skull	17,947	17,947
		Collins	22,733	22,722
		Lower Skull	15,520	15,235
	NF Clearwater – Quartz Creek	Quartz Creek	27,935	27,935
	Weitas Creek	Upper Weitas	15,789	15,787
		Middle Weitas	34,822	34,822
		Lower Weitas	19,124	19,124
		Little Weitas	19,471	19,470
		Middle	17,510	17,510
		Hemlock	21,431	21,428
		Johnny	11,742	11,472
	Moose Creek	Deadwood Creek – Moose Creek	14,311	14,151
		Osier	19,835	19,664
		Little Moose	12,529	12,529
	Cayuse Creek	Upper Cayuse	28,934	28,933
		Middle Cayuse	17,837	17,834
		Lower Cayuse	14,196	14,196
		Toboggan	13,791	13,791
		Monroe	13,259	13,259
		Gravey	19,907	19,819
	Kelly Creek	Kelly Forks	26,235	26,101
		Upper Kelly	30,644	30,641
		Lower Kelly	30,431	30,431
	NF Clearwater – Lake Creek	NF Clearwater – Vanderbilt	34,112	33,742
		NF Clearwater - Meadow Creek	16,210	61,210
		NF Clearwater - Long Creek	17,921	17,921
		NF Clearwater – Lake Creek	22,066	21,956

HUC8	HUC10	HUC12	HUC12 Acres - Total	HUC12 Acres – FS Only
Lochsa	Lower Lochsa River	Pete King	17,630	17,591
		Old Man Creek	28,133	28,130
		Split Creek	9,994	9,994
		Fire Creek	11,273	11,225
	Middle Lochsa River	Lochsa River – Post Office Creek	12,192	12,192
		Lochsa River – Lake Creek	33,315	33,307
		Lochsa River – Stanley Creek	31,593	31,593
		Lochsa River – Boulder Creek	30,038	30,023
		Lochsa River - Bald Mountain Creek	28,825	28,818
		Lochsa River – Weir Creek	33,221	33,212
	Warm Springs Creek	Wind Lakes Creek	12,561	12,538
		Upper Warm Springs	13,788	13,785
		Lower Warm Springs	19,451	19,436
	Fish Creek	Upper Fish Creek	23,251	23,245
		Hungery Creek	22,687	22,687
		Lower Fish Creek	10,401	10,397
	Upper Lochsa River	Lochsa River – Walton Creek	18,820	15,804
		Lochsa River – Wendover	20,737	20,737
		Lochsa River Waw'aa'limnine Creek	17,209	17,194
		Lochsa River – Imnatmat'noon Creek	13,227	10,406
	Colt Killed Creek	Upper Colt Killed Creek	24,754	24,754
		Middle Colt Killed Creek	10,810	10,792
		Colt Creek	16,658	16,658
		Lower Colt Killed Creek	21,071	18,695
		Storm Creek	32,704	32,591
		Hidden Creek	10,519	10,514
		Upper Big Sand Creek	17,368	17,111
		Lower Big Sand Creek	24,497	24,497
	Crooked Fork Creek	Upper Crooked Fork Creek	19,449	18,888
		Boulder Creek	16,033	15,645
		Lower Crooked Fork Creek	21,113	11,811
Lower Clearwater	Upper Potlatch River	WF Upper Potlatch River	39,815	24,224
		EF Potlatch River[3]	39,715	4,778
	Middle Potlatch River	Corral Creek	14,351	7,425
		Potlatch River – Hog Meadows	22,168	10,189
	Lolo Creek	Upper Lolo Creek	26,831	26,831
		Middle Lolo Creek	29,520	10,026
		Musselshell Creek	35,354	14,717
		Eldorado Creek	27,214	27,213
	Clear Creek	Upper Clear Creek	19,139	18,557
		South Fork Clear Creek	24,152	24,152
		Lower Clear Creek	29,412	7,778
Lower Selway River	Lower Selway River – Gedney Creek	O'Hara Creek	37,899	37,899
		Gedney Creek	30,836	30,835
		Selway River – Goddard Creek	22,725	21,525
	Meadow Creek	Lower Meadow Creek	31,605	31,605
		Buck Lake Creek	20,750	20,750
		Sable Creek	13,694	13,694

HUC8	HUC10	HUC12	HUC12 Acres - Total	HUC12 Acres – FS Only
		Middle Meadow Creek	33,240	33,240
		Upper Meadow Creek	22,359	22,359
		Headwaters Meadow Creek	24,082	24,082
	Selway River – Three Links Creek	All HUC12's	229,990	229,990
	Moose Creek	All HUC12's	217,053	217,053
Upper Selway River	Bear Creek	All HUC12's	145,268	145,268
	Upper Selway River – Pettibone Creek	All HUC12's	96,639	96,568
	Running Creek	Upper Running Cr	24,371	24,369
		Lower Running Cr	17,716	17,701
South Fork Clearwater River	Middle South Fork Clearwater River	South Fork Clearwater River – Lightning Creek	29,740	11,937
		Meadow Creek	24,024	23,774
		Mill Creek	23,459	22,810
	Johns Creek	Lower Johns Creek	26,149	25,390
		Upper Johns Creek	30,800	30,800
		Gospel Creek	15,209	15,150
	Upper South Fork Clearwater River	Tenmile	34,353	34,299
	Crooked River	Upper Crooked River	28,643	28,412
		Lower Crooked River	16,980	15,878
	Newsome Creek	Upper Newsome Creek	24,522	24,324
		Lower Newsome Creek	18,048	17,989
	American River	Upper American River	15,266	14,259
		East Fork American River	11,401	10,590
		Lower American River	15,263	8,979
		Elk Creek	16,317	6,971
	Red River	Upper Red River	32,019	31,383
		South Fork Red River	24,152	24,152
		Middle Red River	23,132	21,321
		Lower Red River	23,935	22,557
Middle Salmon - Chamberlain	Sabe Creek	Upper Sabe Creek	19,865	19,865
		Lower Sabe Creek	15,313	15,313
	Bargamin Creek	Upper Bargamin Creek	23,097	23,097
		Middle Bargamin Creek	22,617	22,616
		Lower Bargamin Creek	24,230	24,230
	Middle Salmon – Sheep Creek	Sheep Creek	35,041	34,464
	Crooked Creek	Upper Crooked Creek	17,441	17,176
		Lake Creek	28,902	27,848
		Big Creek	18,012	18,012
		Lower Crooked Creek	20,072	19,975
	Wind River	Wind River	23,698	23,587
		Meadow Creek	17,807	17,606
Lower Little Salmon River	Rapid River	Rapid River – Copper Creek		
		West Fork Rapid River	22,053	21,972
		Lower Rapid River	16,511	12,188
	Lower Salmon River – Race Creek	Race Creek	18,418	12,270
		John Day Creek	14,028	6,659

HUC8	HUC10	HUC12	HUC12 Acres - Total	HUC12 Acres – FS Only
Lower Salmon River	Slate Creek	Upper Slate Creek	10,659	10,659
		Upper Little Slate Creek	25,528	25,468
		Lower Little Slate Creek	15,876	15,876
		Lower Slate Creek	32,049	26,161
	Lower Salmon River – Skookumchuck	Skookumchuck Creek	20,947	14,372
	White Bird Creek	North Fork White Bird Creek	21,084	14,055
		South Fork White Bird Creek	22,979	21,480

Goals

FW-GL-CWN-01. The Nez Perce-Clearwater National Forests coordinate with the National Marine Fisheries Service, U. S. Fish and Wildlife Service, and the Nez Perce Tribe to plan and implement projects that contribute to recovery goals for aquatic species listed under the Endangered Species Act and their designated critical habitat, such that protective measures under the Act are no longer necessary.

Desired Conditions

FW-DC-CWN-01. Conservation Watershed Networks have functionally intact ecosystems that provide high-quality water and contribute to and enhance the conservation of aquatic species of conservation concern and recovery of threatened or endangered fish species.

Standards

FW-STD-CWN-01. In Conservation Network Watersheds not meeting FW-DC-CWN-01, and FW-DC-WTR-04, activities shall be planned and implemented in a manner that initiates, supports, and/or contributes to a trend towards achievement of aquatics Desired Conditions at the HUC12 scale.

Guidelines

FW-GDL-CWN-01. To meet or maintain desired conditions for Conservation Network Watersheds, net increases in permanent stream crossings and permanent roads miles in RMZs should not occur, unless necessary to improve ecological function in aquatic ecosystems.

1.2.3 Riparian Management Zones (RMZs)

RMZs shall be delineated on the ground based on site conditions as follows:

Category 1. Fish-bearing streams: RMZs consist of the stream and the area on each side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet total, including both sides of the stream channel), whichever is greatest.

Category 2. Permanently flowing non-fish bearing streams: RMZs consist of the stream and the area on each side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance (300 feet total, including both sides of the stream channel), whichever is greatest.

Category 3. Constructed ponds and reservoirs, and wetlands greater than 1 acre: RMZs consist of the body of water or wetland and: the area to the outer edges of the riparian vegetation, or to the extent of seasonally saturated soil, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance from the edge of the wetland greater than 1 acre or the maximum pool elevation of constructed ponds and reservoirs, whichever is greatest. Lakes and natural ponds - RMZs consist of the body of water and: the area to the outer edges of the riparian vegetation, or to the extent of seasonally saturated soil, or to the extent of unstable and potentially unstable areas, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance, whichever is greatest.

Category 4. Seasonally flowing or non-fish-bearing intermittent streams, wetlands, seeps and springs less than 1 acre, - This category applies to features with high variability in size and site-specific characteristics. At a minimum, the RMZs should include:

- The stream channel and extend to the top of the inner gorge

- The stream channel or wetland and the area from the edges of the stream channel or wetland to the outer edges of the riparian vegetation, extending from the edges of the stream channel to a distance equal to the height of one site-potential tree, or 100 feet slope distance, whichever is greatest. A site-potential tree height is the average maximum height of the tallest dominant trees for a given site class.

- Intermittent streams are defined as any non-permanent flowing drainage feature having a definable channel and evidence of annual scour or deposition. This includes what are sometimes referred to as ephemeral streams if they meet these two physical criteria.

In order to achieve watershed desired conditions, the RMZ is broken into two areas called the inner and outer RMZs. Some activities are prohibited or restricted in the inner RMZ, whereas more active management is allowed in the outer RMZ with an increase in protections in close proximity to water resources.

Table 14 below outlines the typical widths of the inner, outer, and total RMZs on either side of a water body in Idaho. The width of inner RMZ listed in Table 14 is the minimum interior portion of the entire RMZ width that is needed to protect and maintain water quality and aquatic habitat. If an already established road is located within the inner RMZ, then the inner RMZ can end at the toe of the road fill, so that the road prism and all uphill area of that point is considered part of the outer RMZ.

Table 14. Widths of inner and outer areas on each side of feature within riparian management zones (RMZs) within Idaho

Stream/water/area type	Inner (ft)	Outer (ft)	Total width (ft)
Category 1 – Fish bearing streams	100*	200	300*
Category 2 – Perennial, non-fish-bearing streams	100*	50	150*
Category 3 – Natural Lakes and ponds, Constructed Ponds and Reservoirs, and wetlands greater than 1 acre	100*	50	150*
Category 4 – wetlands** less than 1 acre, intermittent streams	50*	50	100*

* Management zone widths extend either to the distance listed or to the top of the inner gorge slope break, whichever is greater.

Desired Conditions

FW-DC-RMZ-01. RMZs reflect a natural composition of native flora and fauna and a distribution of physical, chemical, and biological conditions appropriate to natural disturbance regimes affecting the area. The species composition and structural diversity of native plant communities in riparian

management zones provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration. They supply amounts and distributions of nutrients, coarse woody debris, and fine particulate organic matter sufficient to sustain physical complexity and stability.

FW-DC-RMZ-02. RMZs feature key riparian processes and conditions that function consistent with local disturbance regimes, including slope stability and associated vegetative root strength, wood delivery to streams and within the RMZs, input of leaf and organic matter to aquatic and terrestrial systems, solar shading, microclimate, and water quality.

FW-DC-RMZ-03. Habitat for western pearlshell mussels and Pacific lampreys is present and well-distributed in basins where they naturally occur.

FW-DC-RMZ-04. Vegetation in the outer RMZs meets fuel loading and other desired conditions through a combination of natural disturbance, wildland fire and vegetation management.

Standards

FW-STD-RMZ-01. Vegetation and road management activities shall be proposed and implemented consistent with State law (i.e. Idaho Forest Practices Act).

FW-STD-RMZ-02. Vegetation management shall only occur in the inner riparian management zone in order to maintain, restore or enhance aquatic, soil, and riparian-associated resources long-term. Treatments that do not create soil disturbance or compact soils may be authorized with site-specific analysis as long as aquatic and riparian-associated resources are maintained.

FW-STD-RMZ-03. Storage and refueling sites shall be located outside of RMZs to minimize effects to aquatic resources. If refueling or storage is needed within RMZs, the locations must be approved by the Forest Service and have an approved spill containment plan.

FW-STD-RMZ-04. Salvage harvest shall not occur in inner RMZs except hazard tree mitigation for the purpose of safety near roads, trails, administrative and recreation sites.

Guidelines

FW-GDL-RMZ-01. Trees felled inside the inner RMZs should be left onsite and where it is safe and practical to do so, directionally felled towards or into streams.

FW-GDL-RMZ-02. To reduce the amount of sediment that is generated and delivered to watercourses from areas where timber harvest and fuel reduction activities are conducted, projects should:

- Avoid tractor skidding in RMZs.
- Avoid construction or locating skid trails in RMZs.
- Locate log landing, processing, and handling areas outside of RMZs.
- Locate burn piles outside of RMZs.

FW-GDL-RMZ-03. To reduce the amount of sediment delivered to streams, new road construction, including temporary roads, should be avoided in RMZs except where necessary for stream crossings, or where Forest Service authorities are limited by law or regulation. In these cases, FW-GDL-IFS-01, 02, 06, and 09 should be followed.

FW-GDL-RMZ-04. Aerial application of chemical retardant, foam, or other fire chemicals and petroleum should not occur in mapped aerial retardant avoidance areas (see glossary), in order to prevent adverse effects streams and mortality of aquatic species.

FW-GDL-RMZ-05. To prevent adverse effects to riparian areas, aquatic habitat, and riparian dependent species, incident bases, camps, helibases, helispots, staging areas, and other centers for incident activities should be located outside of RMZs. When no practical alternative exists, measures to maintain, restore, enhance, and reduce adverse effects to riparian areas, stream habitat, and riparian dependent species should be used.

FW-GDL-RMZ-06. To reduce sediment delivery and adverse effects to stream channels, construction of machine fireline in RMZs should be avoided, except where needed to cross streams, when necessary to protect life and property, or when that location is expected to have the highest probability of successfully meeting fire management objectives.

FW-GDL-RMZ-07. New sand and gravel mining and extraction should not occur within RMZs, to avoid ground disturbance and sediment delivery to streams.

FW-GDL-RMZ-08. To maintain or promote desired conditions, including prevention of blow down of inner RMZ trees and changes in the microclimate in the inner RMZ, clearcut harvest should not occur in RMZs.

FW-GDL-RMZ-09. To conserve Pacific lamprey and western pearlshell mussel populations, stream substrates should be surveyed prior to de-watering channel work proposed in areas containing habitat for these species. If found, individuals should be re-located to an alternate site with suitable habitat.

1.2.4 Infrastructure *(Aquatics)*

Desired Conditions

FW-DC-IFS-01. The transportation system and its usage result in lessened effects to water quality and aquatic resources.

Standards

FW-STD-IFS-01. During dust abatement applications on roads, chemicals shall only be applied to the road prism and not directly to watercourses, water bodies (e.g., ponds, lakes), wetlands, or ditchlines.

FW-STD-IFS-02. For new road construction and reconstruction of existing road segments within or adjacent to RMZs, do not side-cast material.

FW-STD-IFS-03. To maintain free-flowing streams, new, replacement, and reconstructed stream crossing sites (culverts, bridges and other stream crossings) should accommodate at least a 100-year recurrence interval flood flow, including associated bedload and debris.

Guidelines

FW-GDL-IFS-01. To maintain the hydrologic integrity of watersheds, NFS roads, trails, linear features, and airstrips should have a water drainage system that is hydrologically disconnected from delivering water, sediment, and pollutants to water bodies, to the extent practicable.

FW-GDL-IFS-02. To maintain and/or improve watershed ecosystem integrity, and reduce road-related mass wasting and sediment delivery to watercourses, new and relocated road, trail, (including skid trails

and temporary roads) and other linear features should not be constructed on lands with high mass wasting potential.

FW-GDL-IFS-03. To maintain free-flowing streams new, replacement, and reconstructed stream crossing sites (culverts, bridges and other stream crossings) should be constructed to prevent diversion of stream flow out of the channels in the event the crossing is plugged or has a flow greater than the crossing was designed.

FW-GDL-IFS-04. To maintain channel stability and reduce sediment delivery to watercourses, trails, fords, and other stream crossings should be hardened to protect the stream bed, banks, and approaches during construction or reconstruction.

FW-GDL-IFS-05. To reduce sediment delivery to watercourses, soil should not be side-cast into watercourses during road and trail maintenance activities.

FW-GDL-IFS-06. Care should be taken when plowing snow so as not to include road soil and breaks should be designed in the snow berms to direct water off of the road.

FW-GDL-IFS-07. Wetlands and unstable areas should be avoided when reconstructing existing roads or constructing new roads and landings.

FW-GDL-IFS-08. New, replacement, and reconstructed stream crossing sites should be designed to provide and maintain fish passage where native fish, or other desired aquatic organisms, are present.

1.2.5 Energy and Minerals *(Aquatics)*

FW-STD-EM-01. Any Plan of Operation that proposes activities in RMZs should include a reclamation plan and a reclamation bond that address the cost of removing facilities, equipment, and materials; recontouring disturbed areas to pre-mining topography; isolating and neutralizing or removing toxic materials; salvaging or replacing topsoil; and revegetating with trees and shrubs and/or native plant seed to move toward attainment of desired riparian and stream conditions and avoid adverse effects on native fish.

Guidelines

FW-GDL-EM-01. Mineral projects should reuse existing access routes and processing sites left from previous projects. Where new construction or relocation is necessary, access routes and processing facilities should avoid RMZs. Where no alternative access exists, roads should be kept to the minimum necessary for the approved mineral activity.

FW-GDL-EM-02. Best Management Practices for Mining in Idaho as administered by Idaho Department of Lands should be utilized during operations and rehabilitation of the site.

FW-GDL-EM-03. Access routes and processing sites should be immediately decommissioned or placed into intermittent stored service, after operations are completed or if they have been abandoned longer than 1 year.

FW-GDL-EM-04. To maintain water quality and to prevent biological, chemical, or industrial pollutants from being delivered to water bodies, mineral exploration, processing, and extraction projects should not have direct water flow paths and should install barriers between construction-related pollutant hazards (e.g., sumps, processing pits, fuel storage, latrines, adits and shafts, underground workings, open pits, overburden, development rock and waste rock dumps, tailings impoundments, leach pads, mills, and process water ponds) or natural pollutant hazards (e.g., acidity, metals, sulfate, cyanide, and/or nitrate), and watercourses, streams, lakes, wetlands, or groundwater dependent ecosystems (GDE).

FW-GDL-EM-05. Where placer mineral exploration, processing, and extraction activities occur within stream channels, the project: a) should not excavate the stream banks; and b) Should restore all project activity to proper channel.

FW-GDL-EM-06. To maintain quality and quantity of water flows to, within, or between GDEs, bore holes from minerals exploration should be decommissioned after exploration or extraction operations are complete. A decommissioned bore should not: a) Produce or accept fluids; b) Serve as a conduit for the movement of contaminants inside or outside the well casing; or c) Allow the movement of surface or groundwater into unsaturated zones, into another aquifer, or between aquifers.

1.2.6 Livestock Grazing *(Aquatics)*

Standards

FW-STD-GR-01. Livestock grazing practices shall avoid, minimize, or mitigate adverse effect to fish and riparian habitat that may result from grazing practices. Management actions could include but are not limited to adjusting accessibility of riparian areas to livestock and changes in length of grazing season, stocking levels, and timing.

Guidelines

FW-GDL-GR-01. Locations for livestock trailing (gathering and moving), loading, and salting should be relocated from the inner RMZs in instances where these activities may result in adverse effects to plant and animal species (including fish) listed under the Endangered Species Act, designated critical habitat, or species of conservation concern and their habitat..

FW-GDL-GR-02. Grazing allotments that contain low gradient Rosgen C and E channels (or their equivalent) should be administered with requirements that end of season stubble height is 15 cm along the greenline to achieve conditions at site scales that enable attainment and maintenance of desired conditions in these locations. Application of the greenline stubble height numeric value should be applied where it reflects existing and natural conditions for the specific geo-climatic, hydrologic, and vegetative conditions for which it is being applied. Indicator values should be adapted over time based on long-term monitoring and evaluation of conditions and trends. Alternative utilization and disturbance indicators and values, including those in current Endangered Species Act (ESA) consultation documents or prescribed by a recent NEPA analysis, may be used if they are based on the best available science and monitoring data and meet the purpose of this guideline.

FW-GDL-GR-03. To maintain quality and quantity of water flows to, within, or between groundwater dependent ecosystems (GDE), water to spring developments should be protected from livestock trampling.

FW-GDL-GR-04. Grazing management should prevent trampling of native fish redds by livestock.

1.2.7 Lands and Special Uses *(Aquatics)*

Guidelines

FW-GDL-LSU-01. Authorizations for new special uses and re-authorizations for existing special uses (including, but not limited to water diversion or transmission facilities (e.g., pipelines, ditches), energy transmission lines, roads, hydroelectric and other surface water development proposals) should result in the re-establishment, restoration, or mitigation of habitat conditions and ecological processes identified as being essential for the maintenance or improvement of habitat conditions for fish, water and other riparian

associated species and resources. These processes include in-stream flow regimes, physical and biological connectivity, water quality, and integrity and complexity of riparian and aquatic habitat.

FW-GDL-LSU-02. To avoid or reduce effects to RMZs, locate new support facilities outside of RMZs. Support facilities include any facilities or improvements (e.g., workshops, housing, switchyards, staging areas, transmission lines). An exception may be allowed for implementation of prescribed protection, mitigation, or enhancement measures.

FW-GDL-LSU-03. If existing support facilities are located within the RMZs, at time of permit reissuance, reduce adverse effects to aquatic and riparian resources, e.g. move support facilities outside of RMZs.

1.2.8 Recreation *(Aquatics)*

Desired Conditions

FW-DC-REC-01. The effects of recreation facilities, including trails and dispersed sites, their maintenance, and use result in fewer effects to aquatic resources, including water quality, threatened or endangered species, designated critical habitat, and species of conservation concern and their habitat.

Guidelines

FW-GDL-REC-01. To maintain quality and quantity of water flows to, within, or between groundwater dependent ecosystems, groundwater use developments (e.g., recreation and administrative sites, drinking water wells, waste water facilities) should not:

a) Be developed in RMZs (unless no alternatives exist);

b) Measurably lower river flows, lake levels, or flows to wetlands or springs (e.g., change springs from perennial to intermittent, or eliminate springs altogether); and/or

c) Discharge pollutants directly to groundwater.

FW-GDL-REC-02. To protect resources, new and reconstructed solid and sanitary waste facilities should not be located within inner RMZs.

FW-GDL-REC-03. Avoid placing new facilities or infrastructure within expected long term channel migration zone to reduce potential impacts to water and fishery resources. Where new activities inherently must occur there, locate them to reduce impacts on riparian associated resource conditions.

1.3 Wildlife

This forest plan incorporates a complementary ecosystem and species-specific approach to maintaining the diversity of plant and animal communities and the persistence of native species in the plan area. The plan must provide for ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area including plan components to maintain or restore structure, function, composition, and connectivity. Moving towards the natural range of variability outlined in plan components for terrestrial ecosystems such as those in the Forested Lands, Grass and Shrublands, Aquatic Ecosystems and Riparian Management Zones, will ensure that ecological conditions for most wildlife will be provided. Additionally, the plan must contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern within the plan area. The plan must also include plan components to maintain or restore key characteristics associated with terrestrial and aquatic ecosystem types, rare aquatic and terrestrial plant and animal communities, and the diversity of native tree species similar to that existing in

the plan area (USDA 2012). Where ecosystem plan components are insufficient to provide such ecological conditions, then additional species-specific plan components, including standards or guidelines, must be included in the plan to provide such ecological conditions in the plan area (USDA 2012). This section provides additional species specific plan components for Threated and Endangered, proposed, candidate, and species of conservation concern.

Goals

FW-GL-WL-01. Through cooperation and collaboration with the U. S. Fish and Wildlife Service, other federal agencies, state agencies, and tribes on conservation strategies, recovery plans, and habitat management, ecological conditions on NFS lands contributes towards recovery of Federally Listed Endangered and Threatened species, candidate and proposed species are conserved, and future listings are prevented.

Desired Conditions

FW-DC-WL-01. The Forest provides habitat conditions for Federally Listed Threatened, Endangered and Candidate plant and animal species that contribute to their recovery to the point at which listing is no longer appropriate. Habitat used by federally listed species provide conditions to meet their life history needs.

FW-DC-WL-02. Ecological conditions in the Forest planning area provide for, or contribute, to the persistence of populations of species of conservation concern over the long term, with sufficient distribution to be resilient and adaptable to stressors and likely future environments.

FW-DC-WL-03. The arrangement of vegetation patches range widely in size, shape and structure to provide connectivity for wildlife. Patches are juxtaposed across the landscape forming a landscape pattern consistent with natural range of variation. These patterns vary by habitat type group, slope, aspect, and topographic position. Wide-ranging species are able to move freely across and between habitats, allowing for dispersal, migration genetic interaction, and species recruitment.

FW-DC-WL-04. The forest provides the ecological conditions for the long term persistence of fisher, whose habitat generally follows the distribution of the Warm Moist PVT (even though fishers sometimes use other PVTs). Fisher habitat is composed of large patches of tall forest (trees 25m≥ tall, see glossary) arranged in complex, highly connected patterns at the landscape scale (200-40 sq mi). Patches of tall forest cover an extent of approximately 50% across the Warm Moist PVT group forest wide (consistent with DC Table 6 in Warm Moist PVT Section). At the home range scale (8 sq mi), fishers benefit from variety in successional stages resulting from a patchy mosaic of stand heights that occur in patterns that reflects natural disturbance (see Warm Moist PVT). The shapes, sizes, distribution, density and height of forest patches vary by topography, slope, aspect, and topographic position (e.g. ridge, mid-slope, toe slope, valley bottom) to provide variety in fisher habitat (e.g. seasonal habitats, denning, foraging). Some stands of tall forests, distributed across the Warm Moist PVT, provide a high prevalence of large trees and snags (20+ dbh), abundant coarse woody debris, and multiple canopy layers (denning and resting habitat). This desired condition is based upon the best available science (Sauder and Rachlow 2014, Sauder 2014), however it may be adjusted in the future by new science that produces improved understanding of fisher habitat.

FW-DC-WL-05. Bighorn sheep persist long term within the planning area. Bighorn sheep habitats provide grass and forbs with high protein content, which is maintained by natural disturbance, juxtaposed near rugged escape cover. Bighorn sheep habitat reflects its historic distribution and connectivity. Habitat is composed of native vegetation including upland shrublands, upland grasslands, riparian shrublands, and riparian woodlands.

FW-DC-WL-06. River corridors and tributaries within harlequin duck nesting habitat provide a suite of habitat conditions optimal for harlequin duck nesting and brooding.

FW-DC-WL-07. Caves, mines, and snags with loose bark provide areas for roosting, hibernation, or maternity sites for bat species of conservation concern.

Standards

FW-STD-WL-01. Canada lynx habitat shall be managed in accordance with the Northern Rockies Lynx Management Direction (2007) and ROD, and any amendments, updates, or new direction forthcoming.

FW-STD-WL-02. When closing caves, bat friendly closures are required.

FW-STD-WL-03. In order to prevent disease transmission between wild and domestic sheep, domestic sheep or goat grazing shall not be authorized in or within 16 miles of bighorn sheep occupied core herd home ranges.

Guidelines

FW-GDL-WL-01. In order to provide connectivity between watershed basins (HUC 10), corridors of mature and mid seral forest with canopy closure greater than 40% should be retained and should connect to patches of mature forest in adjacent watershed basins. Considerations for location and width should include topography, elevation and configuration of riparian areas.

FW-GDL-WL-02. Infrastructure such as communication towers and energy developments, should not be located such that they adversely affect dispersal, migration, crucial winter habitat or movement of wildlife unless no other suitable sites exists.

FW-GDL-WLMU-03. When closing mines, actions should be taken to avoid loss of bat maternity or hibernation habitat, and/or bat entombment.

FW-GDL-WLMU-04. New and reconstructed livestock water developments should be equipped with wildlife escape ramps.

1.3.1 Multiple Uses- Wildlife

The 2012 Planning Rule requires forest plans provide for ecosystem services and multiple uses, including outdoor recreation, range, timber, watershed, wildlife, and fish, within Forest Service authority and the inherent capability of the plan area. Plans must include components that guide the contribution to social and economic sustainability to provide people and communities with a range of social, cultural, and economic benefits for present and future generations. Plan components below are designed to provide or contribute to habitat conditions for wildlife, fish, and plants commonly enjoyed and used by the public for hunting, fishing, trapping, gathering, observing, subsistence, and other activities. They also provide opportunities for the plan area to contribute to cultural traditions, history, art, and traditional resource uses important to Tribes.

This section applies to wildlife such as big game, fur bearers, upland game, wildlife that provides non-consumptive uses, and wildlife used by the Nez Perce Tribe for ceremonial, spiritual, or cultural uses. The plan area supports native populations of mountain goat, moose, mule deer, whitetail deer, black bear, wolf, cougar, and bighorn sheep. Prominent in the area are herds of elk, which at one time were among the largest in the Nation, but have since greatly declined. There is a strong desire by the public, local and state governments, Tribes, outfitter and guides, sportsman's groups and other interest groups to recover and grow elk populations. Furbearers in the plan area include beaver, badger, bobcat, river otter, musk rat, coyote, fox, skunk, long tailed weasel, marten, and mink. Other species are used by Federally Recognized

Tribes for cultural traditions, history, art, and traditional resource uses. Pursuant to the planning rule, plan components in this section are subject to provisions that provide for the diversity of plant and animal communities (Section 219.9 (USDA 2012)). Plan components below were developed in collaboration with the Nez Perce Tribe, and the Idaho Fish and Game. Plan components related to ecological sustainability and diversity of plant and animal communities also contribute to social and economic sustainability.

Alternatives may vary the emphasis placed on Elk habitat across the planning area. Additional plan components for Elk, including winter and summer range, forage quality and elk security will be deferred until alternative development working in conjunction with the Region 1 Science Advisory Group.

Goals

FW-GL-WLMU-01. Habitat contributes to wildlife populations at levels meeting Idaho Department of Fish and Game species management plan objectives.

Desired Conditions

FW-DC-WLMU-01. Habitat supports opportunities for hunting, fishing, trapping, gathering, observing, photography, subsistence, cultural interactions and the exercise of treaty reserved rights. Wildlife are distributed in habitats within their respective seasonal ranges.

FW-DC-WLMU-02. Habitats in each PVT function within desired range of variation to contribute to multiple use wildlife needs.

FW-DC-WLMU-03. At the Forest scale, habitat for wild ungulates provides conditions to meet life history requirements year-round. Vegetation in these habitats are primarily composed of native plants.

FW-DC-WLMU-04. Winter and summer habitats for elk provide high quality forage and cover.

FW-DC-WLMU-05. Pacific yew plant communities and timbered areas with mature and old yew-wood thickets provide moose winter habitat.

FW-DC-WLMU-06. Natural processes contribute to the mosaic of habitats needed by ungulates.

Guidelines

FW-GDL-WLMU-01. When implementing projects, consider taking action to improve effectiveness of road closures and other travel plan decisions to reduce unauthorized motorized use.

FW-GDL-WLMU-02. New fencing installation or reconstruction should be designed to reduce barriers to wildlife movement.

FW-GDL-WLMU-03. In order to reduce disturbance to wintering big game during their most challenging season, management activities should not be authorized in big game winter range between December 1 and March 15th.

1.4 Air Quality

Goal

FW-GL-AIR-01. Coordinate with local and regional partners to reduce cumulative air quality impacts prior to planned ignition activities.

Desired Condition

FW-DC-AIR-01. Air quality supports human and ecosystem health and quality of life over the long term. It enhances visibility and the visual aesthetics of the planning area over the long term.

2 Tribal Trust Responsibilities

The Nez Perce Tribe aboriginally occupied a territory that encompassed about 13,204,000 acres of land(1995), including nearly all land now managed by the Nez Perce-Clearwater Forests. According to the Nez Perce Tribe:

> The land and its waters define the Nez Perce way. Over the course of thousands of years, nature has taught us how to live with her. This intimate and sacred relationship unifies us, stabilizes us, humbles us. It is what makes us a distinct people and what gives us our identity. We cannot be separated from the land or our rights without losing what makes us Nez Perce. We defend our rights to preserve who we are and what we hold sacred.(2013)

The Nez Perce Tribe has ancestral and treaty-reserved rights to uses and resources on the Forests. Indian Treaty rights are property rights held by the sovereign Indian tribes who signed the treaties. Each treaty is unique but, generally speaking, Indian tribes reserved separate, isolated reservation lands under the treaties and, in the case of the Nez Perce Treaty of 1855 and subsequent treaties, retained certain rights to hunt, fish, graze, and gather on the lands ceded to the United States. These rights retained on ceded lands are known as “off-reservation treaty rights” or “other reserved rights”.

Trust responsibility arises from the United States' unique legal and political relationship with Indian tribes. It derives from the Federal Government's consistent promise, in the treaties that it signed, to protect the safety and well-being of the Indian tribes and tribal members. The federal trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal treaty rights, lands, assets, and resources, as well as a duty to carry out the mandates of federal law with respect to all federally recognized American Indian and Alaska Native tribes and villages.

Goals

FW-GL-TT-01. Proposed practices and management activities do not diminish rights of Indian tribes or tribal members.

Desired Conditions

FW-DC-TT-01. Vegetative conditions provide a sustainable diversity of habitats necessary to provide plant and animal species that are of Tribal importance.

FW-DC-TT-02. Habitats support wildlife at huntable and harvestable population levels for the exercise of treaty reserved rights.

FW-DC-TT-03. At the Forest scale, habitats supports populations of black bear, cougar, wolves, furbearers and porcupine.

FW-DC-TT-04. At the Forest scale, culturally important botanical species are present and vigorous.

FW-DC-TT-05. At the Forest scale, habitat supports populations of wildlife species necessary for tribal subsistence (ungulates, big game) and cultural practices, such as porcupine, beaver, otter, cottontail, eagles, grouse and cranes.

FW-DC-TT-06. Hot springs are natural, free-flowing in function and appearance. Water quality meets state water quality standards for beneficial uses. Human waste is not present at or near the springs.

Ecological conditions within and surrounding hot springs fall within their historic range of variability. Human use impacts are minor and consistent with traditional cultural uses of the site. Guidelines

Guideline

FW-GDL-TT-01. Collection of special forest products is managed in a manner that protects resources and avoids conflicts with tribal uses.

3 Human Uses of the Forest

3.1 Cultural Resources

Goals

FW-GL-CR-01. Local user groups, affected communities, and local organizations collaborate in the preservation and protection of cultural resources and maintaining the community's connection to those resources.

Desired Conditions

FW-DC-CR-01. Historic properties maintain their National Register integrity (36 CFR 60.4) for present and future generations. These well maintained properties connect communities with ancient places having a deep history as well as sites associated with the recent past. Archaeological and historical research contributes to knowledge about history and provides a valuable perspective on past climate and environment. Traditional cultural properties and other culturally significant areas identified by tribes and local communities provide tangible links to historically rooted beliefs, customs, and practices through the retention of their National Register integrity.

FW-DC-CR-02. The Nez Perce (NEE-ME-POO) National Historic Trail, Lewis and Clark National Historic Trail, Lolo Motorway (FR 500), Magruder Corridor Road, and Elk City Wagon Road, are maintained to protect their National Register integrity. Modern use of the trails occurs in a manner that maintain the integrity of the trails and promotes, educates, and interprets this historic context and importance of the travel routes.

FW-DC-CR-03. Future use determinations, and other processes involving the disposition of historic buildings and structures, are crafted in an integrated manner where adaptive-reuse alternatives are pursued.

FW-DC-CR-04. Deferred maintenance of historic administrative facilities and priority heritage assets are reduced or eliminated. Benign neglect is avoided.

FW-DC-CR-05. Historic properties and cultural landscapes exist to provide a greater understanding and appreciation of local, regional and national history. Sites listed on the National Register of Historic Places add to the inventory of significant historical sites in Idaho. Restored historic buildings placed on the Forest Service facility rental program add to forest recreation program capacity and diversity, and generate revenue. Historic Forest Service administrative buildings are maintained to reflect agency history, identity, and function.

Guidelines

FW-GDL-CR-01. Adverse effects (36 CFR 800.5(a)1) to historic properties in developed and dispersed recreation sites should be mitigated per 36 CFR800.6.

3.2 Municipal Watersheds

This section applies to municipal watersheds and source water protection areas, as designated by the Idaho Department of Water Resources. While no formal, written agreements exist between the Forest Service and municipalities, three municipal watersheds are recognized by the Forest: Wall Creek (serving the Clearwater Water Association); Big and Little Elk Creek (serving the Elk City, Idaho, area); and Elk Creek (serving the town of Elk River, Idaho). Source water areas include watershed areas not specifically designated as municipal watersheds that provide untreated water from streams, rivers, or lakes that is used to supply public drinking water.

Desired Condition

FW-DC-MWTR-01. Lands that contribute to municipal watersheds[12] and source water protection areas are in a condition that contributes to consistent delivery of clean water, meets the supply need of users, and meets or exceeds State of Idaho water quality standards.

Standards

FW-STD-MWTR-01. Management activities conducted in source water protections areas[13] will be consistent with source water protections and goals. Short-term effects from activities in source water protection areas may be acceptable when those activities support long-term benefits to water quality.

3.3 Recreation

3.3.1 Recreation Opportunity Spectrum (ROS)

The Forest's spring, summer and fall (non-winter) recreation settings range from primitive, unroaded backcountry areas offering solitude and quiet recreation, to roaded natural and rural settings connecting communities to the forest and offering visitors the opportunity to roam vast distances or gather and socialize with family and friends.

Recreation settings change as snow blankets Forest's landscapes. While some settings become less accessible and more remote, others shift from providing only non-motorized opportunity to providing visitors opportunities to recreate using over-snow vehicles. Although the full range of settings are still present, their location, distribution, and percentages change considerably during winter months.

The Recreation Opportunity Spectrum (ROS) maps and numbers are being updated to align with the revised National Recreation Opportunity Spectrum Mapping Protocol. Rough estimates of the existing percentages are found in Table 15 and Table 16, the percentages may change when the calculations for the existing public recreation opportunity (ROS) classes are finalized. Desired Condition ROS (future) will be developed collaboratively during alternative development and will vary by alternative.

Desired Conditions

FW-DC-ROS-01. The Forest provides a range of recreation settings throughout the year to provide opportunities for a variety of recreation activities.

FW-DC-ROS-02. Historic trails, old mining towns and settlements, ranger stations, and fire lookouts, offer visitors opportunities to learn about and experience the rich heritage of American Indians, and the

[12] The definition does not include communities served by a well or a confined groundwater aquifer that is unaffected by Forest Service activities.
[13] As defined by the Safe Drinking Water Act or any subsequent laws applicable to public water systems that provide water for human consumption

history of early settlers and the Forest Service. These sites are accessible and usable by the public so people can connect with the land and their heritage.

FW-DC-ROS-03. Winter Primitive and Semi-primitive non-motorized backcountry settings offer solitude and quiet recreation for those accessing the forest on skis, snowshoes, or snow boards. Primitive and Semi-primitive motorized settings offer snowmobilers the opportunity to explore areas of the forest that are often non-motorized in the summer months. Roaded Natural and Rural settings continue to serve as convenient connections to surrounding communities and easy access to visitors. Fewer facilities are operated to provide user comfort. Groomed motorized and non-motorized trails offer users the opportunity to get outside for a quick day trip or take longer, cross-country excursions.

FW-DC-ROS-04. Recreation activities contribute to jobs and income in the local economy, community stability, and the quality of life and diverse lifestyles in the area throughout the year.

FW-DC-ROS-05. Desired non-winter recreation settings and opportunities are distributed across the Forest as displayed in the desired summer ROS map and in Table 15.

Table 15. Summer Recreation Opportunity Spectrum (ROS)*

ROS*	Percentage Existing (%)	Percentage Desired Future (%)
Primitive	Estimate of 29	TBD
Semi-primitive Non-motorized	Estimate of 40	TBD
Semi-primitive Motorized	Estimate of 14	TBD
Roaded Natural	Estimate of 17	TBD
Rural	0	TBD
Grand Total	**100**	

*See glossary for ROS class definitions

FW-DC-ROS-06. Desired winter recreation settings and opportunities are distributed across the Forest as displayed in the desired winter ROS map and in Table 16.

Table 16. Winter Recreation Opportunity Spectrum (ROS)

ROS Class*	Percentage Existing (%)	Percentage Desired Future (%)
Primitive	Estimate of 23	TBD
Semi-primitive Non-motorized	Estimate of 21	TBD
Semi-primitive Motorized	Estimate of 43	TBD
Roaded Natural	Estimate of 17	TBD
Rural	0	TBD
Grand Total	**100**	

*See glossary for ROS class definitions

3.3.2 Access

Goals

FW-GL-ACCESS-01. Trail maintenance priorities will be set by the Forest Service consistent with the forest recreation strategy which considers input from recreational user groups, partners and the public.

FW-GL-ACCESS-02. When planning, evaluating and managing NFS trail networks, consider linking routes into cohesive and expanded trail networks through collaboration with local, State, Federal and Tribal governments.

FW-GL-ACCESS-03. Hubs of recreation activity are taken into account when planning, evaluating and managing NFS infrastructure. User groups and local communities that use these hubs as takeoff points for various recreation activities collaborate in the management and maintenance of routes emanating from community hubs.

Desired Conditions

FW-DC-ACCESS-01. The trail system serves land management and public needs and purposes. It may interconnect with trails on other landownerships. Trail management objectives (TMOs) are identified and kept current for all trails. Trail are maintained consistent with TMOs.

FW-DC-ACCESS-02. Trails not needed to serve management or public needs and purposes are absent.

FW-DC-ACCESS-03. National Historic Trails and other historic travelways are available for people to access and enjoy using a variety of methods. Access to and interpretation of National Historic Trails (NHT) and historic travelways is available to forest visitors using a variety of methods to access and enjoy.

FW-DC-ACCESS-04. Off-Highway Vehicle (OHV) recreational cross-forest routes connect southern Idaho communities to northern Idaho communities and Washington and Oregon communities to Montana communities and connect community hubs within and adjacent to the Forest using loop trails where appropriate.

FW-DC-ACCESS-05. The Grand Exploration Motorized (GEM) Trail provides motorized travel connections between community hubs by primarily using existing roads and trails.

FW-DC-ACCESS-06. Summer recreation trailheads contribute to economic sustainability of nearby communities by providing recreationists access to motorized and non-motorized trails on the Forest.

FW-DC-ACCESS-07. Winter recreation trailheads contribute to economic sustainability of nearby communities by providing recreationists access to designated cross-country ski trails, snowshoe trails, snow machine routes and/or large expanses of open terrain on the Forest. Trailhead locations may shift in response to snow patterns induced by climate change.

FW-DC-ACCESS-08. Winter recreation fee areas provide access to a designated system of groomed motorized and non-motorized routes to reduce conflicts between modes of travel.

FW-DC-ACCESS-09. Groomed snowmobile routes connect communities, and groomed and ungroomed routes provide north/south and east/ west routes across the Forest. High-elevation, open-riding winter environments are distributed across the Forest.

FW-DC-ACCESS-10. Existing airstrips provide users the unique opportunities to quickly access vast and remote backcountry and Wilderness areas for recreational activities.

FW-DC-ACCESS-11. The Magruder Road offers a unique opportunity for motorized travel on a primitive road that connects Idaho to Montana and provides high country access to East and West Meadow Creek Roadless areas, the Frank Church River-of-No-Return Wilderness, and the Selway-Bitterroot Wilderness. The Gospel Road to Square Mountain Lookout provides motorized access to the high country of the Gospel Hump Wilderness. The Lolo Motorway, Elk City Wagon Road and other

historic travelways provide motorized access for the public to travel historic travel routes by a variety of methods. Interpretation of the historic importance of these trails is available to the public.

3.3.3 Developed Recreation

Recreation sites throughout the Forest provide a range of opportunities including day use and overnight use. Recreation visitors range from backpackers who carry most of what they need with them to people pulling a camp trailer or driving a Recreation Vehicle (RV). Regardless of their mode of travel people may seek different opportunities. Some visitors like the freedom of dispersed camping with minimal regulation where they can be alone, or with a group. Other visitors like the structure and security of more highly developed campground with designated campsites and the onsite management presence of a campground host. Some recreation sites include specialized facilities like boat ramps along rivers and lakes or stock handling facilities.

The development scale for recreation sites is a numeric scale from 0-5 that is used to define the level of development within a recreation site. Level 0 is the least developed site, with no constructed features while level 5 is the most developed sites appropriate on National Forests.

Goals

FW-GL-DEVREC-01. Coordinate with local communities and tourism organizations to promote an integrated recreation experience for visitors through traditional media and emerging technologies.

Desired Conditions

FW-GL-DEVREC-1. Recreation sites provide opportunities for visitor experience consistent with the ROS spectrum. Facilities with a development scale of 0-2 are suitable in primitive, semi-primitive non-motorized and semi-primitive motorized settings. Recreation sites ranging from 0-5 are all suitable in roadless natural, roaded modified and rural ROS settings

FW-GL-DEVREC-2. The development scale of recreation facilities is consistent with recreation corridor, river management, scenic byway, trail management or other specialized plans.

3.3.4 Dispersed Recreation

Dispersed recreation occurs outside developed sites and includes the majority of recreation use on the forest. Dispersed recreation includes sites with no constructed facilities to minimal development that favors resource protection over user convenience from level 0 to level 2 in the development scale. It includes single day activities but may include camping. Dispersed campsites are established over time by recurring recreation use and tend to be located in areas with desirable characteristics, particularly those with easy access to forest system roads, relatively flat topography, and close proximity to water. Much of dispersed recreation occurs with limited constraints.

FW-DC-DISREC-01. Dispersed campsites are available in desirable locations and are free of litter and human waste.

FW-DC-DISREC-02. Dispersed recreation sites are available in desirable locations when they are consistent with other resource requirements, do not unreasonably degrade the natural environment, and do not increase in size over time. Forest visitors use existing dispersed sites and the access routes to them consistent with current travel plans.

FW-DC-DISREC-04. Undeveloped hot springs are available for human use and enjoyment. They are free-flowing to retain natural function and appearance. Water meets State water quality standards for

beneficial uses. Human waste is not visible at or near the springs. Lands immediately surrounding hot springs remain vegetated where vegetation can be supported.

3.3.5 Scenery

Scenery is valued by many Forest Visitors. Whether they are hunting, fishing, floating, hiking, driving for pleasure the view of the surrounding landscape is often an important part of their recreational experience. Although a variety of landscapes may be visually pleasing, the Scenery Management (SMS) sets a comprehensive science-based framework to describe scenic character. It provides for public input to identify travel routes where scenery is important.

The interdisciplinary team will develop and map Scenic Integrity Objectives during alternative development with input from the public on the importance (concern level) of roads, trails and use areas for scenery.

Desired Conditions

FW-DC-SCENERY-01. Locally unique and healthy landscapes contribute to recreation settings and sense of place. The unique and distinctive attributes and scenic resources that make up the landscape character contribute to the recreation settings and sense of place for community residents and visitors. These attributes reflect resilient landscapes.

FW-DC-SCENERY-02. The Forest's landscape provides a range of scenic quality consistent with scenic character descriptions by meeting scenic integrity objectives as mapped.

FW-DC-SCENERY-03. Historic facilities and structures remain an integrated part of the cultural and scenic landscape. Modern facilities reflect the architectural character of the area and are constructed of materials that blend with natural settings.

FW-DC-SCENERY-04. Constructed features, other than those described in FW-GDL-SCENERY-02, such as those created for fish and wildlife habitat improvement, range improvement or those authorized in special use permits repeat colors and textures found in the surrounding landscape.

Guidelines

FW-GDL-SCENERY-01. To meet FW-DC-SCENERY-02, projects should be consistent with scenic integrity objectives that are mapped at a broad forest scale emphasizing scenic corridors. Public concern for site-specific scenery concerns should be considered at the project level.

FW-GDL-SCENERY-02. To ensure consistency with the desired scenic character of the forest and the historical and cultural influences of the broader area, the construction or reconstruction of Forest Service buildings (recreation, fire, administrative and other) and buildings authorized under special use permits is consistent with the Built Environment Image Guide (Rocky Mountain Region) or equivalent.

FW-GDL-SCENERY-03. Management activities should be designed to meet mapped Scenic Integrity Objectives.

3.3.6 Recreation Special Uses

Some Forest visitors prefer to recreate on the Forest using the services of an outfitter-guide who may provide specialized skills, equipment or knowledge. The Forest Service values the services that outfitter guides provide to help people enjoy hunting, fishing and recreating on the Forest lands and waters.

Goals

FW-GL-RSU-01. Coordinate the permitting and licensing of outfitted recreation activities with the Idaho Outfitter Guide Licensing Board (IOGLB).

FW-GL-RSU-02. Coordinate with the Idaho Outfitter Guide Association (IOGA) and other outfitter organizations on issues that may affect outfitting opportunities.

FW-GL-RSU-03. Identify additional public needs for outfitted services in conjunction with the IOGLB IOGA and other interested parties.

Desired Conditions

FW-DC-RSU-01. Outfitters and guides provide opportunities for quality recreation experiences as an extension of the National Forest. They are available to provide a variety of year-round guided services to the public and provide small business opportunities in local communities.

FW-DC-RSU-02. Outfitter guides assist the forest in delivering interpretation and education that instills an appreciation for the natural and cultural resources of the Forest and promotes conservation and stewardship.

3.4 Public Information, Interpretation, and Education

Connecting people to their environment and to the natural and cultural history of the area to the Nez Perce-Clearwater National Forests. Relevant and timely public information, creative interpretation, and stimulating education help the FS communicate with the public and enable visitors to be involved in the activities, actions, and expectations for activities on National Forest lands. These connections provide opportunities for the development of strong stewardship ethics and appreciation for the natural and cultural history across these landscapes.

FW-GL-ED-01. Partnerships with federal and non-federal entities helps achieve desired conditions and improve overall resources management. Partnerships and/or collaborative processes within the local communities fosters relationships that help accomplish projects in the communities' and Forest's shared interest and provide hands-on educational opportunities.

FW-GL-ED-02. Partners assist the forest in delivering interpretation and education that instills an appreciation for the natural and cultural resources of the Forest and promotes conservation and stewardship.

FW-GL-ED-03. Forest employees participate in community events such as county fairs, Nez Perce Tribal events, and events sponsored by user groups or partners by providing educational or interpretive materials or programs.

FW-GL-ED-04. Forest employees coordinate with wilderness leaders in the region to provide wilderness management and traditional skills education on-Forest.

FW-GL-ED-05. Forest employees coordinate with partners to provide strong and vigorous youth education in the communities in and adjacent to the Forest.

Desired Conditions

FW-DC-ED-01. Interpretation and education opportunities enhance the visitor's understanding and appreciation for the rich natural and cultural history of the Forest. Interpretive and educational themes focus on Nez Perce native history; wild mountains; early exploration, public land and FS history, mining, trapping, and settlement; and rivers.

FW-DC-ED-02. Ecosystem processes; sustainable management, logging, restoration and fire are interpreted using a variety of methods.

FW-DC-ED-03. Visitor information is available on electronic media, at Forest Service offices, at key forest portals, and at destination recreation facilities.

FW-DC-ED-04. New and emerging technologies are used in interpretation to reach a variety of people of different ages and cultures.

FW-DC-ED-05. Opportunities are available for educators in local communities to learn about local natural resource issues and partner with the forest to deliver place-based outdoor learning opportunities.

FW-DC-ED-06. Interpretation and education opportunities informs the public of potential wildlife-human conflicts and conflict reduction.

FW-DC-ED-07. Education signs are located at high public use areas and trailheads regarding invasive weeds such as cooperative weed management area strategies and weed free hay.

FW-DC-ED-08. Interpretation and education discussing good public land stewardship is provided across the Forest.

3.5 Infrastructure

Desired Conditions

FW-DC-INF-01. The road system serves land management and public needs and purposes. It is interconnected with federal, state, and local public roads to provide access to lands, infrastructure, other land ownerships and inholdings where appropriate. Although roads maintained for passenger cars meet public road safety standards, roads maintained for high clearance vehicles may have hazards and require operator judgment and skill to negotiate. Road management objectives are identified and kept current for all roads. Roads are maintained in accordance with Road management objectives.

FW-DC-INF-02. Roads not needed to serve management and public needs and purposes are absent.

FW-DC-INF-03. Administrative facilities serve the needs of land managers in an economical and cost effective manner. The size, number, and location of facilities meet management needs; are affordable, safe, and energy efficient; and meet appropriate level of accessibility. Facilities are included in the facilities master plan, which is kept current. .

FW-DC-INF-04 Airstrips serve the land management and public needs and purpose of the Forest. The seven existing public backcountry airstrips for airplane and helicopter access to the Forest's backcountry maintain historical site conditions to provide safe and functioning airstrips for backcountry access.

Guidelines

FW-GDL-INF-02. ***Airstrips***. Management and maintenance of all airstrips should follow Idaho Aeronautics Network (IAN) recommendations to provide for safe and functioning airstrips to meet FW-DC-ACCESS-10.

FW-GDL-INF-03. Facilities not needed should be transferred to other uses/ownership or decommissioned.

3.6 Lands and Lands Special Uses

Desired Condition

FW-DC-LND-01. Land ownership is adjusted (acquired or conveyed) to provide reasonable access, efficient management of NFS lands, and/or resource protection as opportunities arise.

FW-DC-LND-02. Land acquisitions and conservation easements are sought to meet forest plan desired conditions, facilitate access for recreation, facilitate restoration and/or conservation of high resource values including: habitat for SCC and listed fish and wildlife species and acquire high value historic properties.

The list of high value resources in FW-DC-LND-02 will become the Forests priority list for acquisitions. We will work with internal and external stakeholders to discuss the highest priorities for acquisitions and will incorporate that list into the DC above.

FW-DC-LND-03. National Forest Service property boundaries adjacent to private lands are surveyed and clearly posted and occupancy trespass is reduced.

FW-DC-LND-04. Rights-of-way and strategic easements are acquired to provide reasonable public and administrative access.

FW-DC-LND-05. Designated communication sites provides communication for the Forest and other government entities and to meet various public needs. Communication site plans will be approved for all designated communication sites.

FW-DC-LND-06. Lands special use authorizations meet land management and both individual and collective public needs.

Guidelines

FW-GDL-LND-01. Proposals for utility and communication facilities outside designated communication sites or utility corridors should only be considered after improvement of existing facilities to accommodate expanded use is analyzed and determined to be infeasible.

4 Production of Natural Resources

4.1 Timber

Per the National Forest Management Act (NFMA) and planning rule regulations, the quantity of timber that may be sold must be less than or equal to the sustained yield limit (SYL). It is the volume that could be removed annually in perpetuity on lands that may be suitable for timber production. The calculation of the SYL is not limited by land management plan desired condition, other plan components, or the Forest's fiscal or organizational capacity and it does not vary by alternative. However, to meet overall multiple-use objectives and achieve the plan's desired conditions and objectives, the expected sale of timber may be increased above the SYL for a limited time (see FSH 1909.12, Chapter 60). The SYL calculation is expected by January 2018.

To display the intended timber program, the plan must identify the SYL, the projected wood sale quantity (PWSQ) and the projected timber sale quantity (PTSQ). The PWSQ is the estimated output of timber and all other wood products expected to be sold during the plan period for any purpose (except salvage harvest or sanitation harvest) on all lands in the plan area. The PTSQ is the portion of the PWSQ that is the quantity that meets applicable utilization standards.

Because the PWSQ and the PTSQ take into account the Forest's fiscal capacity and must be consistent with all plan components, they will vary by alternative. PWSQ and the PTSQ calculations will be run based on constraints developed during alternative development and are not displayed here.

Desired Conditions

FW-DC-TBR-01. The sustainable flow of sawtimber and non-saw timber from the National Forest System lands of the Nez Perce-Clearwater National Forests is primarily a result of treatments used to move from the existing vegetation conditions to a desired vegetation condition.

FW-DC-TBR-02. Restoration treatments and timber harvesting opportunities contribute to business and employment opportunities. Productive timber lands continue to support traditional lifestyles and generational ties to the land. A sustainable mix of timber products is offered under a variety of harvest, contract methods, and authorities to contribute to economic and social sustainability in our communities.

FW-DC-TBR-03. In areas suitable for timber harvest, dead or dying trees in excess of trees needed for snags and snag recruitment are available for salvage (see MA3-GDL-FOR-04for requirements).

FW-DC-TBR-04. Harvests, including regeneration harvests, reflect the scale of natural disturbances and are designed to reach forest vegetation desired conditions.

FW-DC-TBR-05. Timber harvest in the wildland urban interface is designed to reduce fuel loads, limit the risk of wildfire affecting the adjacent populated areas, and provide for safer firefighting conditions.

FW-DC-TBR-06. Wildfire is managed to limit timber losses on lands suitable for timber production.

Standards

FW-STD-TBR-01. Harvest activities on lands not suitable for timber production shall be designed to move toward desired conditions of those lands and are not designed for the purpose of timber production.

FW-STD-TBR-02. Timber will not be harvested on lands where soil, slope, or other watershed conditions would be irreversibly damaged, as identified in project-specific findings.

FW-STD-TBR-03. Timber harvest activities shall only be used when there is reasonable assurance of restocking within 5 years after final regeneration harvest or to meet other desired conditions. Minimum adequate stocking levels are given in Table 17. In some instances, such as when lands are harvested to create openings for fuel breaks and vistas, to prevent encroaching trees, or to create or improve wildlife habitat it is adequate to restock at lower numbers or not to restock. Where harvest is performed to meet vegetation desired conditions on lands not suitable for timber production, it is adequate to restock at lower levels, so long as desired conditions are met.

Table 17. Minimum trees per acre to certify a stand as restocked

Species[14]	**Minimum Trees per Acre**[15]
Ponderosa pine	60

[14] The species that will be favored during vegetation management actions

[15] The minimum trees per acre is the total trees per acre required for restocking and need not consist entirely of the species listed in the adjacent column.

Species[14]	Minimum Trees per Acre[15]
Douglas-fir, grand fir, western redcedar, subalpine fir	125
Western white pine, western larch, western hemlock, Engelmann spruce	125
Lodgepole pine	300

FW-STD-TBR-04. Silvicultural prescriptions and harvesting systems shall be selected based on their ability to meet desired conditions and not strictly on their ability to provide the greatest dollar return.

FW-STD-TBR-05. When determined necessary to help achieve desired ecological conditions for the plan area, the maximum opening size created by clearcutting, seedtree cutting, shelterwood cutting or other cuts designed to regenerate an even-aged stand of timber in a single harvest operation shall be 375 acres. These desired conditions include those associated with forest patterns, patch sizes and forest resilience both in the short and long term (see Forested Vegetation section for details); and the guidelines that help achieve these desired conditions (see Forested Vegetation section for details). This standard applies Forest-wide to new harvest proposals on NFS lands only and need not consider existing recently created openings on NFS, adjacent private, or other agency lands. Additional guidance is available in FSH 1909.12 64.21.

FW-STD-TBR-06. Harvest openings created as a result of one harvest operation that exceed the maximum opening size established in FW-STD-TBR-05 will require 60-day public review and Regional Forester approval.

FW-STD-TBR-07. FW-STD-TBR-05 and FW-STD-TBR-06 shall not apply to the size of salvage harvest openings created as a result of stand replacing or stand initiating natural disturbances.

FW-STD-TBR-08. Clearcutting will be used only where one of the following situations exist:

- Where conducting regeneration harvest in a stand dominated by tree species of an undesired dominance type and shade intolerant tree species are planned for regeneration. Clearcutting may be used where there are insufficient numbers of the desired species to retain as a seed source for the new stand.
- Where conducting regeneration harvest in a stand of lodgepole pine.
- Where conducting regeneration harvest and most or all overstory trees are infected by insect and/or disease and where clearcutting is silviculturally the optimal method of ensuring future stands are not infected, as in the case of dwarf mistletoe.
- Where a site-specific finding determines that clearcutting is the optimum method.

FW-STD-TBR-09. Seedtree harvest will be used only where one of the following situations exist:

- Where conducting regeneration harvest and shade intolerant tree species are planned for regeneration. Seedtree cutting may be used where a sufficient number disease free individuals of the desired species are available to retain as a seed source for the new cohort.
- Where a site-specific finding determines that seedtree cutting is the optimum method.

FW-STD-TBR-10. Shelterwood harvest will be used only where one of the following situations exist:

- Where conducting regeneration harvest and shade intolerant tree species are planned for regeneration. Shelterwood cutting may be used where there are concerns over frostiness or high insolation rates on a site.
- Where a stand of root disease susceptible trees exists on soils where slope stability is a concern. Shelterwood harvest may be used to produce a cohort of root disease tolerant species.
- Where a site-specific finding determines that shelterwood cutting is the optimum method.

FW-STD-TBR-11. The quantity of timber that may be sold per decade will be less than or equal to 10 times the annual SYL departure limits (given in the opening paragraph above). Salvage harvest of trees substantially damaged by fire, windthrow, or other catastrophe or in imminent danger from insect or disease attack may be harvested over and above the SYL.

Guidelines

FW-GDL-TBR-01. Timber harvest on lands other than those suitable for timber production may occur for such purposes as salvage, fuels management, insect and disease mitigation, protection or enhancement of biodiversity or wildlife habitat, meeting desired conditions, or to perform research or administrative studies, or recreation and scenic-resource management consistent with other management direction.

FW-GDL-TBR-02. In order to ensure successful regeneration of harvested stands in the grand fir mosaic, follow mitigation techniques for factors that cause regeneration failures on these sites. These techniques include prompt planting following regeneration harvest, controlling pocket gopher populations during seedling establishment, and selecting planting stock and tree species suitable for these sites[16].

FW-GDL-TBR-03. Harvest activities should be shaped and blended to the natural terrain to the extent practicable and in keeping with project purpose.

FW-GDL-TBR-04. On lands suited for timber production, even-aged stands should generally have reached or surpassed culmination of mean annual increment (95 percent of CMAI, as measured by cubic volume) prior to regeneration harvest. Table 18 gives ages at which culmination generally occurs. Stands need not have met CMAI prior to regeneration harvest if one of the following conditions have been identified during project development:

- When such harvesting would assist in reducing fire risk within the wildland-urban interface (WUI) or the community protection zone (CPZ).
- When harvesting of stands will trend landscapes toward vegetation desired conditions.
- When harvest is thinning, stand improvement, or uneven-aged systems that do not regenerate even-aged or two-aged stands.
- When harvest is for sanitation or salvage of timber stands that have been substantially damaged by fire, wind-throw, or other catastrophe or which are in imminent danger from insect or disease attack.
- When harvest is on lands not suited for timber production and the type and frequency of harvest is due to the need to protect or restore multiple use values other than timber production, or to move the area towards desired conditions.

[16] "The Grand Fir Mosaic Ecosystem—History and Management Impacts" by Ferguson et al (2007) provides further information on this subject.

Table 18. Minimum age at which stands generally reach CMAI

Cover Type	Minimum Stand Age in Years at which CMAI is Generally Reached
Ponderosa pine, Dry Douglas-fir, and dry grand fir	90
Moist Douglas-fir, western larch, western white pine, grand fir, western redcedar	70
Grand fir, western redcedar	80
Cold Douglas-fir, cold western larch	80
Subalpine fir, Engelmann spruce	90
Lodgepole pine	70

4.2 Energy and Minerals

Desired Conditions

FW-DC-EM-01. Locatable minerals are available for prospecting, exploring, developing, and producing, contributing to local employment opportunities, as well as supporting traditional lifestyles and generational ties to the land.

FW-DC-EM-02. Lands are reclaimed in an appropriate manner as defined by the responsible official for the site following exploration, development, and production activities. Abandoned mines that present a physical or chemical hazard to humans are identified and inventoried and reclaimed following State BMPs.

FW-DC-EM-03. Saleable materials are available and accessible to support resource management (e.g., road surfacing or protective rip-rap); personal uses (e.g., landscape rock); and local government and commercial uses. Lands are reclaimed in an appropriate manner. Saleable rock sources for internal use are developed to reduce haul distances.

FW-DC-EM-04. Non-energy leasable minerals are available for prospecting, exploring, developing, and producing and the lands are reclaimed in an appropriate manner.

FW-DC-EM-05. Energy resources in the form of biofuels are available to contribute to demand.

FW-DC-EM-06. Energy resources, such as oil, natural gas, geothermal, wind and solar, are available for lease.

Standards and Guidelines for minerals activities will be developed.

4.3 Livestock Grazing

Desired Conditions

FW-DC-GRZ-01. Livestock grazing on public rangelands has been and continues to be an important and appropriate use of our public lands and is important to the economic vitality and cultural identity of many communities[17]. Within the planning area, the Forests provide forage for domestic livestock grazing consistent with the capacity of the land to produce sustained forage for multiple uses. This includes transitory forage made available following the reduction in conifer overstory from fire and timber harvest. Livestock grazing on the Forests contribute to agriculture businesses and local employment opportunities, as well as supporting traditional lifestyles.

Guidelines

FW-GDL-GRZ-01. To reduce localized impacts resulting from concentrated livestock use and associated trampling, livestock salting should be excluded from riparian areas, meadows, designated sensitive plant habitat, seedling conifer regeneration areas, and prescribed restoration areas.

FW-GDL-GRZ-02. Allotment planning should include measures to protect listed Threatened and endangered occupied habitat during the active growth period[18] as needed. Allotment planning should evaluate the habitat requirements for at-risk and culturally important botanical species and adjust grazing prescriptions as necessary to ensure plant population viability.

FW-GDL-GRZ-03. To allow forage plants to maintain vigor, root development, and soil cover, upland forage utilization should not exceed 45 percent. Specific utilization guidelines should be developed during grazing allotment environmental analysis and allotment management plan development, which consider variables such as ecological condition of the vegetation, timing and duration of use, and other resource values in the area.

An additional plan component for shrub browse will be developed.

4.4 Special Forest and Botanical Products

Desired Condition

FW-DC-SFP-01. Special forest and botanical products are harvested in a sustainable manner that honors treaty-reserved rights, protects resources, and provides products for current and future generations.

FS-DC-SFP-02. Firewood from desirable firewood species is available to meet local firewood demand.

4.5 Suitability

Suitability of lands is a determination made regarding the appropriateness of various land within a plan area for various uses or activities, based on the desired conditions. Identifying suitability of lands for a use in the forest plan indicates that the use may be appropriate, but does not make a specific commitment to authorize that use. Final suitability determinations for specific authorizations occur at the project or activity level decision making process. Generally, the lands on the Forest are suitable for all uses and management activities appropriate for national forests, such as outdoor recreation, range, or timber, unless identified as not suitable.

Specific lands within the Forest will be identified as suitable for various multiple uses or activities based on the desired conditions applicable to those lands. The plan will also identify lands within the Forest as

[17] Joel Holtrop, Deputy Chief, National Forest System, U.S.D.A. Forest Service, July 2008
[18] Active growth period may be variable year to year depending on local climatic conditions.

not suitable for uses that are not compatible with desired conditions for those lands. The suitability of lands need not be identified for every use or activity (36 CFR 219.7 (e)(1)(v)).

Proposed suitable uses for specific areas within the Forest are listed in Table 19. Suitability for some uses is written into law, while other may vary by alternative, which will be determined during collaboration on alternative development.

Table 19. Suitable Uses and Activities on the Forest

	Timber		Roads				Minerals				Recreation Access		
Area	**Timber Production**	**Timber Harvest**	**Permanent Road Construction**	**Temporary Road Construction**	**Prescribed Fire**	**Livestock Grazing**	**Minerals-Locatable**	**Minerals - Leasable**	**Minerals Materials-Saleable**	**New Facilities**	**Motorized Recreation[1]**	**Over-snow Motorized Recreation**	**Mechanized Recreation Travel[1]**
Landmark Historic Corridor	N	N	N	N	Y	Y	Y	N	N	N	Y	Y	Y
Wilderness	N	N	N	N	Y	**	N	Y	N	N	N	N	N
Recommended Wilderness	N	N	N	N	Y	Y	Y	Y	Y	N[10]	N	N	N
Designated Wild and Scenic Rivers – Wild Classification	N	Y[2]	N	N	Y[2]	Y	N	Y[2]	Y[2]	N	Y	Y	Y
Designated Wild and Scenic Rivers- Scenic Classification	N	Y[2]	Y	Y	Y[2]	Y[2]	N	Y[2]	Y[2]	Y	Y	Y	Y
Designated Wild and Scenic Rivers- Recreational Classification	N	Y[2]	Y	Y	Y[2]	Y[2]	N	Y[2]	Y[2]	Y	Y	Y	Y
Suitable Wild and Scenic Rivers – Wild Classification	N	Y	Y	N	Y	Y[3]	Y	Y[3]	Y[3]	Y	Y	Y	Y
Suitable Wild and Scenic Rivers- Scenic Classification	N	Y	Y	Y	Y	Y[3]	Y	Y[3]	Y[3]	Y	Y	Y	Y
Suitable Wild and Scenic Rivers- Recreational Classification	N	Y	Y	Y	Y	Y[3]	Y	Y[3]	Y[3]	Y	Y	Y	Y
Idaho Roadless Area – Wild Land Recreation theme area	N	N	N[4]	N	Y	Y	Y	N	N	N	Y	Y	Y
Idaho Roadless Area - Primitive and Special Areas of Historic or Tribal Significance theme area	N	Y	N[4]	N	Y	Y	Y	N	N	N	Y	Y	Y
Idaho Roadless Area - Backcountry Restoration theme area	N	Y	N[4]	N[4]	Y	Y	Y	Y	Y	N	Y	Y	Y
Idaho Roadless Area - Backcountry Restoration: Community Protection Zone	N	Y	Y[4]	Y[4]	Y	Y	Y	Y	Y	Y	Y	Y	Y
Primitive ROS	N	Y	N	N	Y	Y	Y	Y	Y	N	N	N	Y[5]
Semi-Primitive Non-Motorized ROS	N	Y	N	N	Y	Y	Y	Y	Y	Y	N	N	Y
Semi-Primitive Motorized ROS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Roaded Natural, Roaded Modified, and Rural ROS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

	Timber		Roads				Minerals				Recreation Access		
Area	Timber Production	Timber Harvest	Permanent Road Construction	Temporary Road Construction	Prescribed Fire	Livestock Grazing	Minerals-Locatable	Minerals - Leasable	Minerals Materials-Saleable	New Facilities	Motorized Recreation[1]	Over-snow Motorized Recreation	Mechanized Recreation Travel[1]
Riparian Management Zones (RMZs)	N	Y	N[6]	N[6]	Y	Y	Y	N	N	N[7]	Y[6]	Y	Y
Mass Movement Areas[8]	N	Y[9]	N	N	Y	Y	Y	N	N	N	Y	Y	Y
Municipal Watersheds	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Developed Recreation Sites	N	Y	Y	Y	Y	N	N	Y	N	Y	Y	Y	Y
Administrative Sites	N	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y

** Per designating legislation
[1] On designated routes and areas
[2] Depending on river management plan
[3] When managed to protect and enhance identified Outstandingly Remarkable Values

[4] Road construction and reconstruction may be allowed only to the extent permitted in the Idaho Roadless Rule (36 CFR 294.23)
[5] Outside of Wilderness and recommended Wilderness
[6] Except at perpendicular stream crossing as designed per plan components
[7] Except as needed for resource protection or those inherently located in RMZs

[8] As identified during site-specific project planning
[9] When long-term slope stability can be maintained or improved
[10] Except as needed to protect resources or administer the area or replacement of existing buildings and structures

Suitability-Timber Production

When revising the forest plan all National Forest System lands within the plan area are reviewed to identify their suitability for timber production. The lands suitable for timber production are managed to provide commercial timber products on a regulated basis with planned, scheduled entries. The crops of trees are managed through the use of growing, tending, harvesting, and regeneration techniques. Timber harvest is the removal of trees for wood fiber utilization and other multiple-use purposes.

In Forest planning a two-step approach is used to identify lands not suited for timber production. Table 20 will summarizes the results of the review of lands suitable for timber production.

Step 1. Lands were identify that are not suited based on legal availability or technical considerations (36 CFR 219.11). These lands do not vary by alternative in the plan EIS. After subtracting the lands that are not suited (Table 20. Category 2) from the total of National Forest System lands (Table 19. Category 1), the remaining lands are lands that *may be* suited for timber production, and are considered in step 2 (Table 20. Category 3).

Step 2. From the lands that *may* be suited for timber production (Table 20. Category 3), lands will be identified that *are not* suited for timber production (Table 20. Category 4) and *are* suited for timber production (Table 20. Category 5). The determination is based on the compatibility of timber production with the desired conditions and objectives for those lands. This second step will be completed in the EIS for each alternative considered in plan revision, as the desired conditions, objectives, management areas and other plan components will vary among alternatives.

Timber harvest may be used as a tool for the purpose of maintaining or restoring other resource values in Category 4 and some lands in category 2 (e.g., maintaining a healthy, visually pleasing forest in the recreation segment of a Wild and Scenic River corridor or reducing fire hazard in the wildland urban interface or riparian conservation areas).

Table 20. Timber Production Suitability Classification*

Land Classification Category	Acres
1. Total National Forest System lands in the plan area	3,934,010
2. Lands not suited for timber production due to legal availability or technical considerations (Timber harvest for other resource objective may occur in some areas such as riparian conservation areas per plan component descriptions). Includes: • Designated Wilderness • Idaho Roadless Area – Wild Land Recreation Theme • Wild River segments • Designated Research Natural Areas • Lands not able to reforest • Non-forested	Calculation ongoing
3. Lands that may be suited for timber production (line 1 minus line 2)	TBD
4. Lands not suited for timber production because timber production is not compatible with the desired conditions and objectives established by the plan (harvest may occur in some areas for other resource objectives per plan component descriptions). Includes:	TBD

Land Classification Category	Acres
• Idaho Roadless Rule – Primitive, Backcountry Restoration, and Special Areas of Historic or Tribal Significance Themes • Lolo Trail National Historic Landmark • Riparian Conservation Areas • Scenic and Recreation River segments • Proposed Research Natural Areas • Municipal Watersheds • MM McCrosky State Park Area	
5. Lands suited for timber production (sec. 62.2) (line 3 minus line 4)	TBD
6. Total lands not suited for timber production. (line 2 plus line 4)	TBD

** This table will be updated in the DEIS.*

5. Designated, Proposed, Geographic and other Special Interest Areas

5.A Designated Wilderness Areas, Designated Wild and Scenic Rivers, and National Historic Landmark

Management Area 1 is comprised of protected areas with national designations. This MA consists of three sub-categories designated wilderness areas, designated wild and scenic rivers, and National Historic Landmarks each with their own specific management direction.

5.A.1 Designated Wilderness

The Forest manages the entire Gospel Hump Wilderness. The Forest also manages portions of the Selway Bitterroot and Frank Church River of No Return Wilderness Areas, two of the largest wilderness areas in the country (outside of Alaska). The combination of these three wilderness areas comprise an expansive block of nearly 4 million acres of wilderness in central Idaho and western Montana. Each wilderness area is managed according to its designating legislation and any subsequent management plans specific to that wilderness area. Forest Service policy for managing designated wilderness is found in FSM 2350.

Table 21. Designated Wilderness Areas

Wilderness[19]	Designating Legislation	Nez Perce-Clearwater National Forests Acres	Total Wilderness Acres including adjoining forests
Gospel Hump wilderness	Endangered American Wilderness Act, 1978	205,796	205,796
Selway-Bitterroot Wilderness	The Wilderness Act, 1964	818, 864	1,340,681
Frank Church River of No Return Wilderness	Central Idaho Wilderness Act, 1980	110, 773	2,365,896
Total Designated Wilderness		**1,135,433**	**3,912,373**

Goals

MA1-GL-WILD-01. Coordinate management of wilderness areas that span multiple forests to ensure consistency where appropriate.

FW-GL-WILD-02. The Forest Service cooperates with Idaho Department of Fish and Game to manage fish and wildlife resources within designated wilderness while protecting the wilderness character as provided for in section (4)(d) (8) of the Wilderness Act.

Desired Condition

MA1-DC-WILD-01. Wilderness areas provide the qualities of wilderness character as defined by the Wilderness Act of 1964.

[19] Although 59,000 acres of the Hells Canyon Wilderness are located on the Forest, these are administratively managed by the Wallowa-Whitman NF and are not covered by this document.

MA1-DC-WILD-02. Wilderness areas meet Class I air shed criteria except when fire ignitions result in short term non-compliance.

Standards

MA1-STD-WILD-01. Manage designated wilderness areas according to the law that designated that wilderness (shown in Table 21) and by its current management plan.

Guidelines

MA1-GDL-WILD-01. Manage wilderness character according to wilderness character descriptions specifically developed for each wilderness area.

5.A.2 Designated Wild and Scenic Rivers

The Nez Perce-Clearwater National Forests administers all or part of five designated Wild and Scenic Rivers: Middle Fork Clearwater River, including the Lochsa and Selway Rivers, Rapid River and the Salmon River. The classification and mileage is shown in Table 22. There are approximately 214 miles of river and 59,500 acres within the designated boundaries on the Forest. Management direction for designated rivers is found in the Wild and Scenic Rivers Act (WSRA) and the Act that designated the river (if not designated under the WSRA). Forest Service management policy is found in FSM 2350.

Table 22. Designated Wild and Scenic Rivers

River	Segment	Miles	Classification	Designating Legislation
Lochsa	Powell Ranger Station to Lowell	64	Recreational	Wild and Scenic Rivers Act, 1968
Middle Fork Clearwater	Lowell to Kooskia	23	Recreational	Wild and Scenic Rivers Act
Selway	Lowell to Selway-Bitterroot Wilderness boundary	22	Recreational	Wild and Scenic Rivers Act
Selway	Selway-Bitterroot Wilderness boundary to the Bitterroot NF boundary	36	Wild	Wild and Scenic Rivers Act
Rapid River	Segment located on the Nez Perce-Clearwater NFs	13	Wild	Hells Canyon National Recreation Area Act, 1975
Salmon	Salmon Falls to Long Tom Bar	56	Wild	Central Idaho Wilderness Act, 1980

Goal

MA1-GL-DWSR-01. Management of Wild and Scenic Rivers that cross multiple national forests will be coordinated to ensure consistency of management if necessary to comply with the Act or protect and enhance the outstandingly remarkable values for which the river was designated.

Desired Conditions

MA1-DC-DWSR-02 Comprehensive river management plans are consistent with the Wild and Scenic Rivers Act.

Standards

MA1-STD-DWSR-01 Designated WSR are managed consistent with their individual comprehensive river management plans.

MA1-STD-DWSR-02. River corridors are managed to maintain free-flow and water quality and to protect and enhance the outstandingly remarkable values for which the river was designated.

5.A.3 Lolo Trail National Historic Landmark

The Lolo Trail, a National Historic Landmark administered in cooperation with the National Park Service, is part of the Nez Perce National Historical Park. The trail extends through the Nez-Perce Clearwater National Forests from Lolo, Montana, to Weippe Prairie, Idaho.

The Lolo Trail National Historic Landmark was designated in 1963. Its significance lies in its roots as an ancient Nimiipuu or Nez Perce trail, the route that Lewis and Clark traveled in the early 19th century as well as the flight of the Nimiipuu during the 1877 conflict with the United States government. The Landmark stretches about 62 miles from the Nez Perce-Clearwater National Forests boundary near Musselshell Meadows to the Forest boundary near Lolo Pass.

Goals

MA1-GL-NHL-01. The Lolo Trail National Historic Landmark is no longer considered "at risk" by the National Park Service because the natural setting of the Landmark is managed to benefit its integrity.

Desired Conditions

MA1-DC-NHL-01. The national register integrity (36 CFR 60.4) of the Lolo Trail National Historic Landmark is "high" in order to retain its status as a national historic landmark, and convey its exceptional value and qualities in illustrating the heritage of the United States.

MA1-DC-NHL-02. Natural processes alter vegetative communities within the Landmark. Both wildland and prescribed fire keep vegetative communities within the natural range of variation and perpetuate the natural setting as seen and described by 19th century journalists.

MA1-DC-NHL-03. Open views of the prairies to the west and southwest from the Sherman Peak vicinity exist to understand and facilitate the joy of discovery experienced by the Corps of Discovery on September 18-19, 1805 when the Corps first realized they would be exiting "the most terrible…dismal and horrible mountains…ever beheld."

MA1-DC-NHL-04. Roads and trails persist in a manner that maintains or improves the National Register integrity of the Landmark while providing for safe passage by the public. Non-system roads are not present.

MA1-DC-NHL-05. Static interpretation appropriate for the solitude of the Landmark is used to communicate its national significance. Interpretation utilizes the latest technology and media.

MA1-DC-NHL-06. Resource advisors with historic preservation knowledge are utilized during wildland fire emergencies to maintain and protect the National Register integrity (36 CFR 60.4) of the Landmark.

Standards

MA1-STD-NHL-01. Removal of trees by any motorized mechanical system within the Landmark is prohibited. Creating landings or other significant visual disturbances within the Landmark that are associated with management activities located outside the Landmark is also not allowed.

MA1-STD-NHL-02. Felling of trees within the Landmark for any reason, including for precommercial thinning purposes or collecting firewood and camp wood, is prohibited except for hazard trees which pose a direct threat to users of roads, trails, or recreation facilities.

Guidelines

MA1-GDL-NHL-01. Manage lands within the Landmark corridor to maintain high scenic integrity. Manage lands directly adjacent to the corridor edge in a manner that avoids creating straight lines by feathering edges on vegetative management units located immediately adjacent to the Landmark.

MA1-GDL-NHL-02. Trail treads associated with National Historic Trails within the Landmark should not be widened or deepened during fire suppression activities.

MA1-GDL-NHL-03. Forest policies or other orders which permit non-commercial firewood gathering of down material for both personal and camp wood use, should be formulated to maintain and protect the National Register integrity (36 CFR 60.4) of the Landmark.

MA1-GDL-NHL-04. Stumps resulting from hazard tree felling should be flush-cut, or other visual mitigation employed, to reduce the impact to the natural setting and national register integrity (36 CFR 60.4) of the Landmark.

MA1-GDL-NHL-05. New temporary or permanent road construction shall not be permitted within the Landmark unless the integrity of the National Historic Landmark is maintained, and the purpose of the action is to benefit the integrity of the Landmark.

MA1-GDL-NHL-06. The planting of desirable tree species within the Landmark to help vegetative communities achieve a natural range of variation should be conducted in a way which avoids a systematic and unnatural tree-spacing appearance.

MA1-GDL-NHL-07. Road and trail maintenance and brushing, including during fire suppression activities, should adhere to appropriate maintenance standards whereby the integrity (36 CFR 60.4) of the Landmark and National Historic Trails is maintained. Windthrow falling across open roads and trails may be cut and moved to provide for safe passage. Resulting wood is left for firewood or camp wood use.

MA1-GDL-NHL-08. Wildland fire within the approximate 36-mile segment separating the Mex Mountain/Beaver Dam Saddle localities in the western portion of the Landmark, and Wendover Ridge in the eastern portion of the Landmark, should not be suppressed excepting public or fire fighter safety and infrastructure protection. Wildland fire suppression elsewhere in the Landmark should follow Minimum Impact Suppression Tactics (MIST) or equivalent to maintain the Landmark's National Register integrity.

MA1-GDL-NHL-09. Hazard trees felled for safety reasons are left on the ground for firewood and camp wood use, unless their accumulation impacts the integrity of the landmark corridor.

5.B Recommended Areas and Roadless Areas

5.B.1 Recommended Wilderness

The 2012 Planning Rule requires to Forest to identify and evaluate lands that may be suitable for inclusion in the National Wilderness Preservation System and determine whether to recommend any such lands for wilderness designation. Recommended Wilderness areas preserve opportunities for inclusion in the National Wilderness Preservation System. The components developed for areas recommended for wilderness designation are designed to protect and maintain the ecological and social characteristics that provide the basis for their suitability for wilderness designation. Until congressional action is taken, the Forest is required to maintain the wilderness character and potential for the area to be included in the National Wilderness Preservation System.

The 2014 proposed action included two different proposals for recommended wilderness- Option A and Option B. Option A was developed with public input during the 2004-2007 Forest Plan Revision process. Option B was developed collaboratively after Forest Plan revision began under the 2012 Planning Rule. Option B proposed similar areas for recommended wilderness and added special management areas to provide for limited summer and/or winter motorized use in key areas. Because of the large number of comments we received showing preference for either Option A or Option B we are not including a wilderness recommendation at this time. We will proceed with a collaborative approach to developing a range of alternatives for recommended wilderness considering information in our wilderness evaluation that is currently under development. More information about this process, including an interactive map and background documents are being developed and will be shared on our website: https://www.fs.usda.gov/main/nezperceclearwater/landmanagement/planning.

The management approach considered here looks at which activities have prevented areas from eventual wilderness designation on other National Forests or caused the deletion of portions of recommended areas prior to designation. Other activities that have generally not precluded eventual designation would be allowed to continue. Table 23 listed activities reviewed and the proposed activities allowed in recommended wilderness.

Desired Condition

MA2-DC-RWILD-01. These areas provide opportunities for exploration, solitude, risk, challenge and primitive recreation with users accessing the area by non-motorized and non-mechanized travel. Outfitter guides permitted by the Forest Service and licensed by the State of Idaho may support these uses.

MA2-DC-RWILD-02. Both summer and winter recreation opportunities are consistent with the ROS classification of semi-primitive non-motorized or primitive.

MA2-DC-RWILD-03. Natural ecological processes and disturbances, e.g. fire, insects and disease, are the primary forces affecting the composition, structure, and patterns of vegetation.

MA2-DC-RWILD-04. Large remote areas with little human activity contribute to the connectivity to facilitate movement of wildlife species across the forest.

Standards

MA2-STD-RWILD-01. Road construction and reconstruction may be allowed only to the extent permitted in the Idaho Roadless Rule (36 CFR 294.23- Road construction and reconstruction in Idaho Roadless Areas).

MA2-STD-RWILD-02. Timber cutting, sale or removal may be allowed only to the extent permitted in the Idaho Roadless Rule (36 CFR 294.24- Timber cutting, sale or removal in Idaho Roadless Areas).

MA2-STD-RWILD-03. Mineral activities may be allowed only to the extent permitted in the Idaho Roadless Rule (36 CFR 294.25- Mineral Activities in Idaho Roadless Areas).

MA2-STD-RWILD-04. Winter motorized travel (over the snow) is not suitable in recommended wilderness Areas.

MA2-STD-RWILD-05. Summer motorized travel is not suitable in recommended wilderness areas.

MA2-STD-RWILD-06. Bicycles and other mechanized forms of transportation are not suitable in recommended wilderness.

MA2-STD-RWILD-07. Wheeled carts for transport (including game carts) are suitable for use in recommended wilderness both on trails and cross country.

MA2-STD-RWILD-08. Commercial use of permanent structures such as rental of fire lookouts or cabins is suitable in recommended wilderness.

Guidelines

MA2-GDL-RWILD-01. Minimum requirements analysis should be considered for all instances authorizing uses that may prevent the protection and maintenance of the social and ecological characteristics that provides the bases for wilderness designation.

MA2-GDL-RWILD-02. Motorized and mechanized equipment (such as use of chain saws to clear trails) may be used to facilitate access of the area by the public and meet FW-DC-ACCESS-01.

MA2-GDL-RWILD-03. Chainsaws and other hand held motorized and/or mechanized tools are permitted to accomplish restoration activities or to accomplish administrative work that protect and/or enhance the wilderness characteristics of the area. These tools may be used to maintain infrastructure and to maintain trails to facilitate access into areas.

MA2-GDL-RWILD-04. Administrative landing of aircraft, including unmanned aircraft systems (UAS), for emergency and non-emergency purposes is allowed, including use by other federal agencies, State and local governments.

MA2-GDL-RWILD-05. Recreational (non-administrative) aircraft landing, including unmanned aircraft systems (UAS), is not suitable unless specifically permitted or for an emergency use.

MA2-GDL-RWILD-06. Administrative uses by the Forest Service are allowed. Administrative use for research or monitoring purposes directly related to their management responsibilities by other federal and state agencies is allowed, with coordination with the Forest.

MA2-GDL-RWILD-07. Prescribed fire is suitable in recommended wilderness to protect and/or enhance the wilderness characteristics of these areas.

MA2-GDL-RWILD-08. Herbicide application is suitable in recommended wilderness to protect and/or enhance the wilderness characteristics of these areas.

MA2-GDL-RWILD-09. The construction of new buildings[20] or structures[21] is not suitable in recommended wilderness unless explicitly needed to protect resources or administer the area. Existing

[20] Building is defined as structure designed to be inhabited.
[21] Structure is defined as any other structure not designed to be inhabited.

facilities are suitable in recommended wilderness. Replacement of existing buildings and structures is suitable.

MA2-GDL-RWILD-10. Existin2g outfitter guide services that are consistent with wilderness characteristics and do not include [m]echanized or motorized travel are suitable and may continue to be permitted.

Table 23. Proposed Activities Allowed in Recommended Wilderness

Proposed Activities in Recommended Wilderness	**Use Allowed in Recommend Wilderness (Yes or No)**
Road Construction / Reconstruction (only to the extent permitted in the Idaho Roadless Rule)	Yes
Timber Cutting, Sale or Removal (only to the extent permitted in the Idaho Roadless Rule)	Yes
Mineral Activities (only to the extent permitted in the Idaho Roadless Rule)	Yes
Winter Motorized Travel (Over The Snow)	No
Summer Motorized Travel	No
Mechanized Transport (including Bicycles)	No
Wheeled Carts for Transport on trails and cross country (including Game Carts)	Yes
Commercial Use Of Permanent Structures (such as rental of fire lookouts or cabins)	Yes
Administrative Use of Motorized and/ or Mechanized Tools	Yes
Public Use of Motorized Hand Tools (such as use of chain saws to clear trails for access to area)	Yes, if for trail clearing
Administrative Landing Of Aircraft	Yes
Recreational Aircraft Landing	No
Prescribed Fire	Yes
Herbicide Application	Yes
Construction Of New Buildings Or Structures	No
Existing Outfitter Guide Services	Yes

5.B.2 Suitable Wild and Scenic Rivers

This portion of MA 2 applies to river segments that have been identified as suitable for inclusion as part of the Wild and Scenic Rivers System under the authority granted by the Wild and Scenic Rivers Act of 1968, as amended.

The Forest has developed a preliminary list of eligible rivers. We are currently reviewing comments and preparing to move forward with a suitability analysis as described in FSH 1909.12 section 83- Evaluating River Suitability. Suitability determinations will be made collaboratively and are expected to vary by alternative.

More information about this process, including an interactive map and background documents, visit Wild and Scenic River Evaluation Process webpage https://www.fs.usda.gov/detail/nezperceclearwater/landmanagement/planning/?cid=fseprd552493.

These interim protection measures apply to all identified suitable rivers. Future projects considered in these areas will be evaluated to determine their consistency with the protection measures.

Goals

MA2-GL-SWSR-01. Coordinate with other agencies, governments and private land owners who have jurisdiction in suitable river corridors.

Desired Conditions

MA2-DC-SWSR-01. Forest Service-identified suitable wild, scenic, and recreational rivers remain free-flowing, maintain water quality and continue to meet their preliminary classification of "wild", "scenic" or "recreational" until a decision is made on the future use of the river and adjacent lands through an Act of Congress or a determination that the river is not suitable.

MA2-DC-SWSR-02. Outstandingly remarkable values (ORVs), as defined in each river's suitability report, are protected in Forest Service-identified suitable rivers corridors until a decision is made on the future use of the river corridor through an Act of Congress or from a change in suitability status from a future study.

The following protection measures apply to interim management of Forest Service-identified suitable rivers. (FSH 1909.12 84.3)

Standards

MA2-STD-SWSR-01. In Suitable Wild River corridors, new airfields may not be developed.

MA2-STD-SWSR-02. In Suitable Wild River corridors, do not construct or authorize roads outside of the corridor that would adversely affect the wild classification. The accessibility attribute for the Wild classification states "that a few existing roads leading to the boundary of the area are acceptable" Construction of new roads that lead to the boundary are not acceptable in wild segments.

Guidelines

MA2-GDL-SWSR-01. Water Resources Projects on Suitable Wild, Scenic and Recreational River corridors. To maintain free flow, protect and enhance ORVs and maintain water quality, water resources projects such as the construction or development of water supply dams, diversions or flood control should not be allowed unless analysis shows no adverse impacts to free-flow, water quality and ORVs.

MA2-GDL-SWSR-02. Hydroelectric Power Facilities on Suitable Wild, Scenic, Recreational River corridors. Hydroelectric power facilities should not be authorized unless free-flowing condition, water quality and ORVs can be protected.

MA2-GDL-SWSR-03. Locatable Minerals (such as silver and gold) on Suitable Wild, Scenic and Recreational River corridors. Locatable minerals are subject to regulation under 36 CFR Part 228 and should be conducted in a manner that maintains free-flowing condition, water quality and the ORVs.

MA2-GDL-SWSR-04. Leasable Minerals (such as oil and gas) on Suitable Wild, Scenic and Recreational River corridors. Leases, licenses and permits under mineral leasing laws should include conditions to protect the ORVs

MA2-GDL-SWSR-05. Saleable Minerals (such as sand, gravel and rock)

> **Suitable Wild River Corridors.** Sale of mineral material is prohibited.
>
> **Suitable Scenic and Recreational River Corridors.** Mineral material may be sold if the ORVs are protected. Mineral material may be used for administrative purposes if the ORVs are protected.

MA2-GDL-SWSR-06. Transportation (Roads, railroads, bridges, trails and airfield)

Suitable Wild River Corridors. Roads and railroads are generally not compatible with a wild river classification. Prevent actions that would preclude protection of the river as wild. Prevent actions related to the road system that would preclude protection of the river as a wild segment. New trail construction should generally be designed for non-motorized uses. Limited motorized uses and unobtrusive trail bridges may be allowed if ORVs are protected.

Suitable Scenic River Corridors. New roads and railroads are permitted to parallel the river or to bridge the river if such construction protects ORVs (including the rivers free-flowing character). Bridge crossings and river access are allowed. New trail construction or airfields must be compatible with and protect ORVs,

Suitable Recreational River Corridors. New roads and railroads are permitted to parallel the river if such constructions fully protects river values (including the river's free-flowing character). Bridge crossing and river access are allowed. New trail construction or airfields must be compatible with and protect ORVs.

MA2-GDL-SWSR-7. Motorized Travel

Suitable Wild River Corridors. Motorized travel on land or water is generally not compatible with this classification. It may be permitted when deemed to be necessary if it is carefully defined and the effects are mitigated.

Suitable Scenic and Recreational River Corridors. Motorized travel on land or water may be permitted, prohibited or restricted to protect the ORVs.

MA2-GDL-SWSR-8. Utility Proposals on Suitable Wild, Scenic and Recreational River Corridors. New above ground transmission lines such as gas lines, water lines and other linear facilities are not compatible. New underground transmission lines may be compatible if ORVs can be protected. Where no reasonable alternative exists, additional or new facilities should be restricted to existing rights-of-way.

MA2-GDL-SWSR-9. Vegetation Management

Suitable Wild River Corridors. Cutting of trees and other vegetation is not allowed within the corridor except when needed to maintain a primitive recreation experience, to protect users or to protect outstandingly remarkable values. Prescribed fire and wildfires managed for resource benefit may be used to restore or maintain habitat for threatened, endangered or sensitive species or to restore the natural range of variation.

Suitable Scenic and Recreational River Corridors. A range of vegetation management and timber harvest is allowed within the corridor if these practices are designed to protect users, or protect, restore, or enhance the river environment and its outstandingly remarkable values.

MA2-GDL-SWSR-10. Fish and Wildlife habitat on Suitable Wild, Scenic and Recreational River corridors. Construction of minor habitat structures and vegetation management to protect and enhance wildlife and fish habitat are allowed if ORVs can be protected.

MA2-GDL-SWSR-11. Historic properties may be protected or stabilized if ORVs can be protected.

MA2-GDL-SWSR-12. Recreational Development

Suitable Wild River Corridors. New major public-use areas such as development level 4 and 5 campgrounds, interpretive centers, or administrative headquarters should not be constructed in the river corridor. Minimum facilities, such as toilets should be constructed only where necessary to

protect and enhance water quality or ORVs. All facilities should be located and designed to harmonize with the primitive character, natural and cultural settings of the river corridor and be screened from view from the river to the extent possible.

Suitable Scenic River Corridors. New public use facilities such as development level 3 campgrounds, toilets, river access facilities such as boat ramps are allowed within the river corridor. All facilities should be located and designed to harmonize with their natural and cultural settings, protect ORVs and screened from view from the river to the extent possible.

Suitable Recreational River Corridors. New recreation, administrative and river access facilities such as boat ramps may be constructed in the river corridor in close proximity to the river. All facilities should be located and designed to harmonize with their natural and cultural settings, protect ORVs and screened from view from the river to the extent possible.

MA2-GDL-SWSR-13. Domestic Grazing on Suitable Wild, Scenic and Recreational River corridors. Domestic livestock are managed to protect identified river values. Existing structures may be maintained. New facilities may be developed to facilitate livestock management if ORVs can be protected.

5.B.3 Idaho Roadless Areas

This MA includes lands within Idaho Roadless Areas as defined in the Idaho Roadless Rule. There are 34 separate mapped areas that vary greatly in size, elevation and habitat. They are generally at least 5,000 acres (three areas that are adjacent to wilderness or recommended wilderness are smaller) and as large as 250,000 acres. These areas comprise approximately 1,500,000 acres across the forest with an average size of approximately 44,000 acres. The Idaho Roadless Rule assigned one or more management themes for each area which outlines the permitted and prohibited actions for timber cutting, roads and minerals. The Idaho Roadless Rule does not direct the management of motorized uses. Motorized use is determined in travel planning. Trails are the primary improvements constructed and maintained for recreation users. In some areas, lookouts, cabins, or other structures are present as well as some evidence of resource management activities.

Idaho Roadless Areas are managed in a manner that is consistent with the appropriate theme as defined by the final rule: 36 CFR Part 294. Special Areas; Roadless Area Conservation; Applicability to the National Forests in Idaho; Final Rule.

Goals

MA2-GL-IRA-01. Coordinate all proposed management activities with the Idaho Roadless Commission.

MA2-GL-IRA-02. Recreation opportunities may be consistent with the full range of ROS classes from primitive to rural for both summer and winter uses.

Desired Conditions

MA2-DC-IRA-01. Natural ecological process, natural disturbances and prescribed fire are the primary forces affecting the composition, structure, and pattern of vegetation.

MA2-DC-IRA-02. Large remote areas with little human activity contribute habitats for wide ranging species. Habitat conditions contribute to wildlife movement within and across the Forest and provide connectivity. These areas also provide foraging, security, denning, and nesting habitat for wildlife.

MA2-DC-IRA-03. These areas provide remote and undeveloped recreation opportunities (motorized and non-motorized).

MA2-DC-IRA-04. Habitat configuration, distribution, and composition provide ecological conditions to increase elk herds.

MA2-DC-IRA-05. Roadless Areas maintain the roadless characteristics of high quality or undisturbed soil, water and air, sources of public drinking water, diversity of plant and animal communities, habitat for threatened, endangered , proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land, primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation, reference landscapes and natural appearing landscapes with high scenic quality.

Standards

MA2-STD-IRA-01. The provisions in the Idaho Roadless Rule (36 CFR 294 Subpart C) shall take precedence over any inconsistent land management plan component unless and until the rule is amended. Land management plan components that are not inconsistent with the Rule will continue to provide guidance for projects and activities within Idaho Roadless Areas; as shall those related to protection of threatened and endangered species (36 CFR 294.28(d)).

5.B.4 Research Natural Areas

Desired Conditions

MA2-DC-RNA-01. Designated and proposed Research Natural Areas (RNAs) maintain a representation of natural systems found on the Nez Perce-Clearwater National Forests as a baseline for research, monitoring, and education by the agency, academia, and public interests. Wildfire, insects, and pathogens, along with other processes and disturbances, continue to affect vegetation, reflecting the dynamic nature of the systems they represent. RNAs contribute to ecological sustainability and biological diversity. The names and acreage of the designated and proposed Research Natural Areas are listed in Table 24.

Standards

MA2-STD-RNA-01. Do not authorize the collection of special forest products for commercial purposes and personal use (including firewood).

Table 24. Designated and Proposed Research Natural Areas

Research Natural Area Name	Designated RNA	Proposed RNA	Acres
Aquarius	•		3,900
Bald Mountain	•		365
Bull Run Creek	•		373
Chateau Falls	•		200
Dutch Creek	•		303
Fenn Mountain		•[1]	600
Four-Bit Creek	•		392
Grave Peak	•		360
Lochsa River	•		1,490
Rhodes Peak		•[1]	310
Sneakfoot Meadow	•		1,965
Steep Lakes	•		784
Upper Hemlock Creek		•[2]	1,405
Elk Creek	•		6,984
Fish Lake	•		760
Moose Meadow Creek	•		1,000
No Business Creek	•		1,360
O'Hara Creek	•		7,000
Square Mountain Creek	•		709
Upper Newsome Creek	•		1,201
Warm Springs Creek	•		530
Mud Springs Ridge		•	289
Bull Run Expansion		•	370

[1] Proposed in 1987 Forest Plans, continue to be proposed.
[2]Proposed after 1987 Forest Plan, continue to be proposed.

5.C. Geographic Areas

5.C.1 Gospel Hump Geographic Area

The Endangered American Wilderness Act (1978) divided the roadless area formerly known as the Gospel Hump area into three portions. The largest portion (206,000) acres became wilderness, another portion (45,000 acres) became available for immediate development and a third portion (three areas totaling 92,000 acres referred to as the Gospel Hump Multi-Purpose Area), was designated for multiple purpose resource development. Section 4 of the Act directed the completion of the Gospel Hump Multi-Purpose Plan, which was completed in 1985 and incorporated into the 1987 Nez Perce Forest Plan. The Endangered American Wilderness Act provides for periodic updates to this multi-purpose plan. This section fulfills that legislative intent and would replace the direction for the area found in the Gospel Hump Multipurpose Resource Development Plan and the 1987 Nez Perce National Forest Land Management Plan.

After review of the 1978 management plan and 1987 Nez Perce Forest Plan direction we have considered existing management direction for each of the three geographic areas in the management plan. We have assigned geographic names to each of the areas- Sourdough to the north of the Gospel Hump Wilderness

Big Meadows to the east and Indian Creek to the southeast adjacent to the Salmon River corridor. Table 25 shows a cross reference of the geographic areas and the names used in the past for each area. See Figure 4 for a map of the Gospel Hump geographic areas.

Table 25. Gospel Hump Geographic Areas

Geographic name	1987 Forest Plan Name	1985 Gospel Hump Multipurpose Resource Development Plan Name
Sourdough Geographic Area	Geographic Display Area 1	Multipurpose Resource Development Area 2
Big Meadows Geographic Area	Geographic Display Area 3	Multipurpose Resource Development Area 1
Indian Creek Geographic Area	Geographic Display Area 2	Multipurpose Resource Development Area 3

Desired Conditions

GA-DC-GPH-01. The Gospel Hump Geographic Area provides multiple ecosystem services consistent with Congress' legislation in the "Endangered American Wilderness Act of 1976", public law 95-237. The area provides quality fish and wildlife habitat, motorized and non-motorized recreation opportunities, areas available for timber harvest to meet social and economic demand and opportunities for research.

Guidelines

GA-GDL-GPH-01. On the eastern portion of the Sourdough Geographic Area where timber production is suitable, activities shall be planned and implemented in a manner that initiates, supports, and/or contributes to a trend towards achievement of aquatics Desired Conditions at the 12th HUC scale.

GA-GDL-GPH-02. Within the Big Meadows Geographic Area, activities shall be planned and implemented in a manner that initiates, supports, and/or contributes to a trend towards achievement of aquatics Desired Conditions at the 12th HUC scale

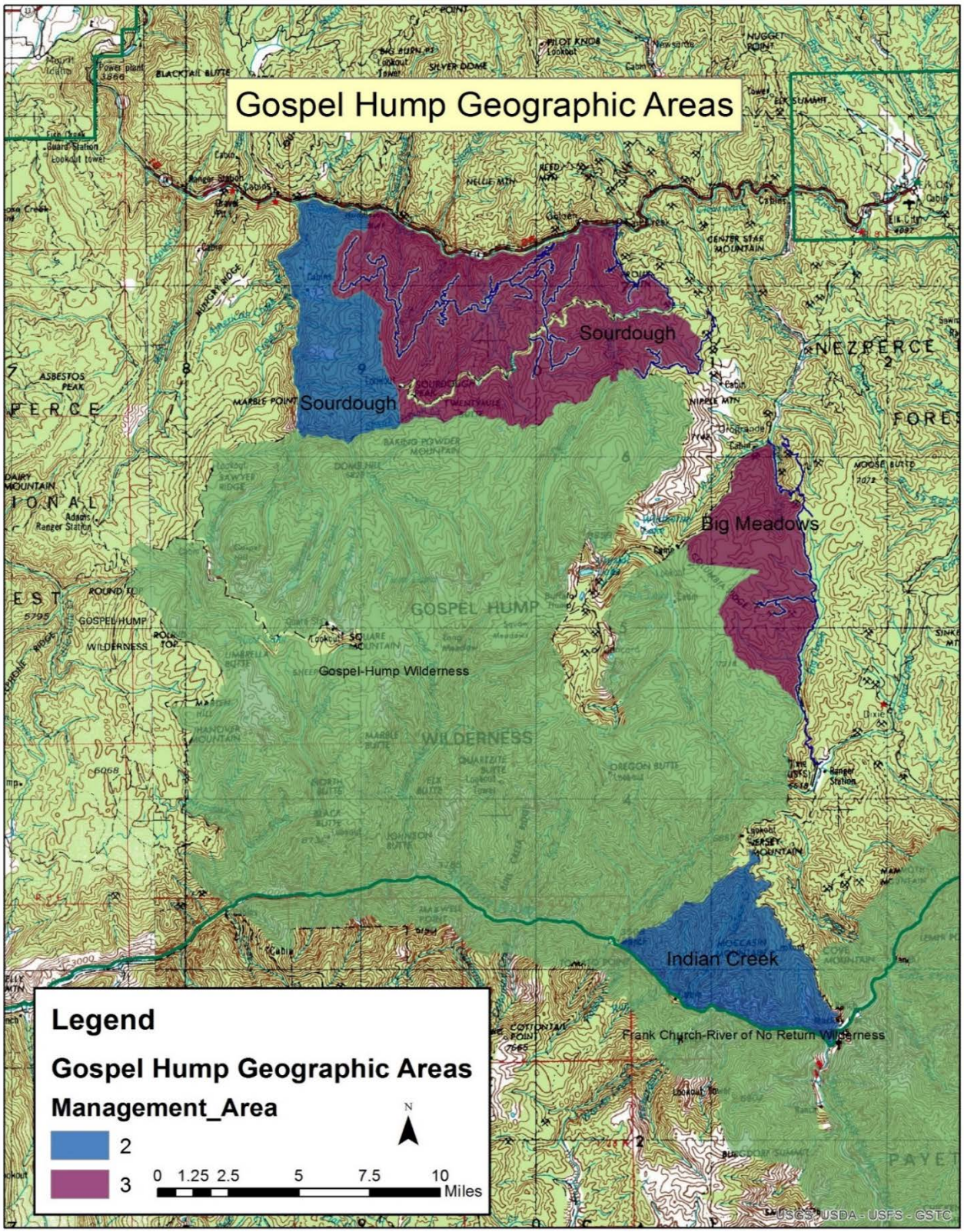

Figure 3. Gospel Hump Geographic Area Map

5.C.2 Lower Salmon River Geographic Area

The Lower Salmon River area contains rich geological complexity contributing to a biological community that is unique within the plan area. This geographic area contains a large portions of the driest of the warm dry PVT group dominated by ponderosa pine under a frequent low intensity fire system. These habitats support species associated with ponderosa pine dominated habitats, including several species of conservation concern. The Lower Salmon River Geographic Area is host to the majority of observations of Ponderosa pine Species of Conservation Concern. For example, the Idaho Department of Fish and Game's Species Diversity Database (Accessed January 2017) shows the majority of observations of white headed woodpecker, Lewis's woodpecker, fringed myotis, Townsend's big eared bats, and mountain quail occur within this geographic area. Similarly, the area contains substantial amounts of habitat for the flammulated owl, and pygmy nuthatch.

The area is home to remarkable biodiversity and high endemism of land and aquatic snails. The Lower Salmon River Canyon has long been known as a hot spot of biodiversity for land snails, where more than 60 species have been identified to date, which represents more than half of the land snail biodiversity within the State of Idaho. Many of the land snail species are thought to be restricted to the lower Salmon River corridor, some occupy this area and portions of the nearby Snake River, while others are only known from a few rock outcrops. Surprisingly, none of the land snail species occur throughout the Lower Salmon River. Several specimens from this area appear to warrant consideration as distinct species and have not yet been fully described within the scientific literature (Frest and Johannes 1995). Also of note is the contribution of this geographic area as habitat for wintering elk, and it contains important habitat for mule deer. It also contributes habitat for bighorn sheep.

Desired Conditions

SRGA-DC-WL-01. Forest management is consistent with desired conditions found in Terrestrial Ecosystems section 1.1 with emphasis on restoration and maintenance of ponderosa pine ecosystems on appropriate sites.

SRGA-DC-WL-02. Mountain Quail habitat emulates historic natural range of variation, provides connectivity, and is dominated by plant native species.

SRGA-DC-WL-03. Habitat for ponderosa pine associated species, including legacy trees and snags, are within desired conditions within ponderosa pine systems (FW-DC-FOR-02, and all plan components under the Warm Dry PVT sections). Understory characteristics do not facilitate stand replacing fires, and are composed of native plants that provide insect populations as forage for ponderosa pine associated species. These habitats are resilient to changes due to climate change.

A map is under development. Public participation in the development of additional plan components for this Geographic Area will occur during alternative development.

5.C.3 Pilot Knob

Desired conditions and Objectives for the Pilot Knob Geographic Area will be developed with the Nez Perce Tribe.

5.C.4 Idaho Roadless Rule Community Protection Zones

Goals

GA-GL-CPZ-01. Management activities in CPZs are coordinated with local officials and residents.

Desired Condition

GA-DC-CPZ-01. Hazardous fuel accumulations are mitigated within Community Protection Zones where feasible so that fires originating on National Forest System Lands have the opportunity to provide fire managers with safe feasible opportunities to achieve resource protection measures before crossing on to other ownerships.

Standards

GA-STD-CPZ-01. When planning projects in Community Protection Zones, design treatments to remove or rearrange material necessary to achieve the following outcomes under the 90% weather conditions; achieve an average flame length of 4 feet or less OR surface fire behavior.

GA-STD-CPZ-02. Projects within Community Protection Zones shall be consistent with the Idaho Roadless Rule.

Work with stakeholders to further develop Desired Conditions and Objectives for the CPZs. All plan components will be consistent with the Idaho Roadless Rule.

5.D Special Interest Areas

Desired Conditions

GA-DC-SIA-01. Special Interest Areas are established to protect and manage for public use and enjoyment, areas with scenic, geological, botanical, zoological, paleontological, archaeological, or other special characteristics or unique values on the Forests. Education and interpretation of these areas promote public awareness of these special features. The names and acreage of the proposed special interest areas are listed in Table 26.

Table 26. Special Interest Areas

SIA Name	Designated SIA	Proposed SIA	Theme	Acres*
Giant Western Redcedar	•		Botanical	23
Morris-Perkins Grove	•		Botanical	33
Devoto Grove	•		Botanical	20
Heritage Cedar Grove	•		Botanical	50
Colgate Licks	•		Geologic	50
Musselshell Meadows	•		Heritage	50
Walde Mt.	•		Botanical	150
Sing Lee Fen		•	Botanical	31
Clear Creek Glades		•	Botanical	267
Packer Meadow		•	Botanical/ Heritage	299

Appendix A-Glossary and Acronyms

Activity area—A land area affected by a management activity such as a harvest unit including landings and temporary roads outside the harvest unit boundary but excluding system roads. An activity area may also be a prescribed burn unit or any area delineated on the ground for a specific treatment. Activity areas must be feasible to monitor.

Adaptive management—An approach to natural resource management where actions are designed and executed and effects are monitored for the purpose of learning and adjusting future management actions, which improves the efficiency and responsiveness of management.

Adverse Effect to an Historic Property: An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative

Allotment management plan (AMP)—A document applying to management of rangeland ecosystems and livestock operations on the public lands prescribing: (1) the manner in and extent to which livestock operations will be conducted in order to meet ecosystem health, multiple use, economic, and other objectives; (2) describing range improvements to be installed and maintained; and (3) containing such other provisions relating to livestock grazing and other objectives found by the Secretary of Agriculture to be consistent with the provisions of Federal Land Policy and Management Act. An AMP integrates resource objectives, standards, guidelines, and management requirements for soil and water for watershed protection, wildlife and fisheries, recreation, timber, and other resources on lands within a range allotment.

Adaptive reuse—The process of utilizing districts, sites, buildings, structures, and objects in ways other than what they were originally designed for - whereby the historic value and integrity of the property is retained. Adaptive reuse contributes to community and landscape resiliency, as well as perpetuates sense of place.

Assessment—For the purposes of this forest plan, an assessment is the identification and evaluation of existing information to support land management planning. Assessments are not decision making documents, but provide current information on select topics relevant to the plan area, in context of the broader landscape (36 CFR 219.19).

Aquatic ecosystem—Waters and wetlands of the United States that serve as habitat for interrelated and interacting communities and populations of plants and animals. The stream channel, lake or estuary bed, water, biotic communities, and the habitat features that occur therein.

Beneficial uses—Any of the various uses which may be made of the water, including, but not limited to, domestic water supplies, fisheries and other aquatic life, industrial water supplies, agricultural water supplies, navigation, recreation in and on the water, wildlife habitat, and aesthetics.

Best management practices (BMP)—Practice or set of practices that enable a planned activity to occur while still protecting the resource managed, normally implemented and applied during the activity rather than after the activity.

Best management practices for water quality (BMP)—Methods, measures, or practices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operations and maintenance procedures. BMPs can be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters (36 CFR 219.19).

Big game—Those species of large mammals normally managed as a sport hunting resource. Generally includes; elk, moose, white-tailed deer, mule deer, mountain goat, bighorn sheep, black bear, and mountain lion.

Biophysical setting—An aggregation of vegetation response units or landtype associations, grouped by broad, climatic modifiers including temperature and moisture gradients.

Coarse woody debris—Coarse woody debris consists of dead woody material larger than 3 inches in diameter and derived from tree limbs, boles, and roots.

Collaboration or collaborative process—A structured manner in which a collection of people, with diverse interests share knowledge, ideas, and resources, while working together in an inclusive and cooperative manner toward a common purpose.

Community protection zone—as an area extending one-half mile from the boundary of an at-risk community or an area within one and half miles of the boundary of an at-risk community, where any land:

1) has a sustained steep slope that creates the potential for wildfire behavior endangering the at-risk community;

2) has a geographic feature that aids in creating an effective fire break, such as a road or ridge top; or

3) is in condition class 3 as defined by the Healthy Forest Recreation Act (HFRA).

("At-risk community" for this definition is defined by the HFRA.)

Connectivity— Ecological conditions that exist at several spatial and temporal scales that provide landscape linkages that permit the exchange of flow, sediments, and nutrients; the daily and seasonal movements of animals within home ranges; the dispersal and genetic interchange between populations; and the long distance range shifts of species, such as in response to climate change.

Decommission—Demolition, dismantling, removal, obliteration and/or disposal of a deteriorated or otherwise unneeded asset or component, including necessary cleanup work. This action eliminates the deferred maintenance needs for the fixed asset.

Deferred maintenance—Maintenance that was not performed when it should have been or when it was scheduled, and therefore, was put off or delayed for a future period. When allowed to accumulate without limits or consideration of useful life, deferred maintenance leads to deterioration of performance, increased costs to repair, and decrease in asset value. Code compliance (e.g., life safety, ADA, OSHA, environmental, etc.), Forest Plan Direction, Best Management Practices, Biological Evaluations other regulatory or Executive Order compliance requirements, or applicable standards not met on schedule are considered deferred maintenance.

Designated area—An area or feature identified and managed to maintain its unique special character or purpose. There are two types of designations: statutorily designated (wilderness, national heritage areas, national recreation areas, national scenic trails, wild and scenic rivers, and wilderness study areas) and administratively designated areas (e.g., experimental forests, research natural areas, scenic byways, botanical areas, and significant caves). (36 CFR 219.19)

Designated route—A National Forest System road or a National Forest system trail on National Forest System lands that is designated for motor vehicle use pursuant to 36 CFR 212.51 on a motor vehicle use map.

Determination—A finding in the study document that the river segment meets the criteria found in this chapter to be first eligible, and then later, suitable for inclusion in the National System. FSH 1909.12 Chapter 80

Detrimental soil disturbance (DSD) - The alteration of natural soil characteristics resulting in immediate or prolonged loss of soil productivity and soil-hydrologic conditions. Disturbances include the effects of compaction, displacement, rutting, severe burning, surface erosion, loss of surface organic matter, and soil mass movement.

Development scale—A numeric scale (0 through 5) used to define the level of development within a recreation site. 0 is the least developed recreation site, containing no constructed features; 5 is the most developed recreation site, typically containing paved access and parking, flush toilets, showers, and other amenities for the comfort of visitors. Reference the Development Scale Primer document for more information. Development scale 0 to 2 is appropriate in primitive, semi-primitive non-motorized, and semi-primitive motorized ROS settings. The full range of recreation site development scales (0–5) is appropriate in roaded natural, roaded modified, and rural ROS settings.

Distinctive Roles and Contributions—Describes key attributes and associated benefits and outcomes (uses, values, products, and services) that NFS lands are uniquely poised to provide; are important and relevant at the local, regional and/or national level; and contribute toward social, economic and ecological sustainability. (Draft FS HB 1909.12, Chapter 20). Distinctive Roles and Contributions will serve as a unifying concept helping define the vision for the plan area within the broader landscape. The preferred vision is expected to assist the responsible official in developing plan components the multiple uses. (36 CFR Part 219 ROD, page 21207). A plan reflects the unit's expected Distinctive Roles and Contributions to the local area, region, and Nation, and the roles for which the plan area is best suited, considering the Agency's mission, the unit's unique capabilities, and the resources and management of other lands in the vicinity. (36 CFR 219.2 (b)(1)

Disturbance—Any relatively discrete event in time that disrupts ecosystem, watershed, community, or species population structure and/or function, and changes resources, substrate availability, or the physical environment.

Dominance group—Dominance group is determined by the following:

Single species – species that makes up at least 60 percent of the canopy cover or weighted basal area.

Species mix – No single species determination can be made. Type of mix, either tolerant or intolerant, is determined by what species combination makes up 80 percent of the canopy cover or weighted basal area, with each species contributing more than 20 percent to the total. Mixed species were combined with habitat types to derive a single species label.

Down wood—Accumulation of woody material scattered on the forest floor that consists of two categories: coarse woody debris and fine woody debris.

Ecological conditions—The biological and physical environment that can affect the diversity of plant and animal communities, the persistence of native species, and the productive capacity of ecological systems. Ecological conditions include habitat and other influences on species and the environment. Examples of ecological conditions include the abundance and distribution of aquatic and terrestrial habitats, connectivity, roads and other structural developments, human uses, and invasive species.

Ecological integrity—The quality or condition of an ecosystem when its dominant ecological characteristics (for example, composition, structure, function, connectivity, and species composition and diversity) occur within the natural range of variation and can withstand and recover from most perturbations imposed by natural environmental dynamics or human influence.

Ecological Type—A category of land with a distinctive (that is, mappable), combination of landscape elements. The elements making up an ecological type are climate, geology, geomorphology, soils, and the potential natural vegetation. Ecological types differ from each other in their ability to produce vegetation and respond to management actions and natural disturbances.

Ecosystem—A spatially explicit, relatively homogeneous unit of the Earth that includes all interacting organisms and elements of the abiotic environment within its boundaries. An ecosystem is commonly described in terms of its:

1. **Composition.** The biological elements within the different levels of biological organization, from genes and species to communities and ecosystems.
2. **Structure.** The organization and physical arrangement of biological elements such as, snags and down woody debris, vertical and horizontal distribution of vegetation, stream habitat complexity, landscape pattern, and connectivity.
3. **Function.** Ecological processes that sustain composition and structure, such as energy flow, nutrient cycling and retention, soil development and retention, predation and herbivory, and natural disturbances such as wind, fire, and floods.
4. **Connectivity.** Ecological conditions that exist at several spatial and temporal scales that provide landscape linkages that permit the exchange of flow, sediments, and nutrients; the daily and seasonal movements of animals within home ranges; the dispersal and genetic interchange between populations; and the long distance range shifts of species, such as in response to climate change.

Ecosystem services—Benefits people obtain from ecosystems, including:

Provisioning services, such as clean air and fresh water, energy, food, fuel, forage, wood products or fiber, and minerals;

Regulating services, such as long term storage of carbon; climate regulation; water filtration, purification, and storage; soil stabilization; flood and drought control; and disease regulation;

Supporting services, such as pollination, seed dispersal, soil formation, and nutrient cycling; and

Cultural services, such as educational, aesthetic, spiritual, and cultural heritage values, recreational experiences, and tourism opportunities.

Eligible Wild and Scenic River—A river segment that is free-flowing and, in combination with its adjacent land area, possesses one or more "outstandingly remarkable values." An eligible river is a river that is further evaluated in a suitability study to determine if it should be included in the National System. FSH 1909.12 Chapter 80

Endangered species—Any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insect determined by the Secretary to constitute a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to man. [ESA §3(6)]

Even-aged stand— A stand of trees composed of a single age class.

Fire behavior—The manner in which a fire reacts to the influences of fuel, weather, and topography.

Fire hazard—A fuel complex defined by volume, type condition, arrangement, and location, which determines the degree of ease of ignition and of resistance to control.

Fire intensity—A general term relating to the heat energy released by a fire.

Fire management— Activities required for the protection of burnable wildland values from fire and the use of prescribed fire to meet land management objectives.

Fire severity—The degree to which a site has been altered or disrupted by fire. A product of fire intensity, fuel consumption, and residence time.

Fire suppression—An appropriate management response to wildland fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire. All wildland fire suppression activities provide for firefighter and public safety as the highest consideration, but minimize loss of resource values, economic expenditures, and/or the use of critical firefighting resources.

Forest health—The perceived condition of a forest derived from concerns about such factors as its age, structure, composition, function, vigor, presence of unusual levels of insects and disease, and resilience to disturbance.

Forest land—Land at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for non-forest uses. Lands developed for non-forest use include areas for crops, improved pasture, residential or administrative areas, improved roads of any width and adjoining road clearing, and power line clearings of any width.

Forest Service–Identified Study Rivers—Rivers that the Forest Service has identified for study to determine potential inclusion in the National System , as directed under section 5(d)(1) of the WSR Act. Study rivers that have been determined by the Forest Service to be Eligible or Suitable Rivers for inclusion in the National System. FSH Chapter 80

Free Flow—As applied to any river or section of a river means existing or flowing in a natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway. The existence, however, of low dams, diversion works, or other minor structures at the time any river is proposed for inclusion [in the National System] shall not automatically bar its consideration for such inclusion: Provided, That this shall not be construed to authorize, intend, or encourage future construction of such structures within components of the [National System]. WSRA, Section 16(b)

Fuel treatment—Any manipulation or removal of fuels to lessen potential damage and resistance to control (includes mechanical and prescribed fire treatments).

Function affected but not impaired—When any or a combination of soil quality indicators is altered but can still provide all soil ecological functions.

Functioning condition—Soil quality indicators are at the Undisturbed Condition or Affected but Not Impaired.

Grazing—The consumption of standing forage by livestock or wildlife.

Grazing allotment—Area designated for the use of a certain number and kind of livestock for a prescribed period of time.

Grazing permittee—A person or entity authorized to graze livestock on national forest lands through the issuance of a Term Grazing Permit.

Ground-based equipment—Mobile equipment such as tractors, dozers, skidders, and mechanized harvesters used for harvesting, site preparation, or hazard reduction; does not include cable systems associated with stationary yarding equipment.

Groundwater-dependent ecosystems (GDEs)–Communities of plants, animals, and other organisms whose existent and life processes depend on access to or discharge of groundwater. GDEs includes, but are not limited to, springs, fens, seeps, areas of shallow groundwater, cave and karst systems, hyporheic and hypolentic zones, and groundwater-fed lakes, streams, and wetlands.

Habitat type group—A land or aquatic unit, consisting of an aggregation of habitats having equivalent structure, function, and responses to disturbance.

Head month (HM)—One month's use and occupancy of the range by one animal. For grazing fee purposes, it is a month's use and occupancy of range by one weaned or adult cow with or without calf, bull, steer, heifer, horse, burro, or mule, or five sheep or goats.

Hibernacula—Habitat niches where certain animals (e.g., bats) overwinter, such as caves, mines, tree hollows, or loose bark.

Historic property: Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Historic range of variation—See natural range of variation.

Hydrologically disconnected—A water drainage system that is hydrologically disconnected from delivering water, sediment, and pollutants to water bodies means the following:

- The water drainage system should prevent erosion
- The drainage system should not discharge water onto landslide prone or high mass wasting hazard lands in quantities that are likely to result in hillslope failure
- The drainage system should disperse water away from the road, trail, linear feature, or airstrip surface using frequent cross drains, outsloping the travel way, and/or varying the running grade of the surface
- The drainage system should relieve inside ditch flows prior to delivering water and sediment to stream channels
- The drainage system should direct flows to areas where water can infiltrate into forest soils by having vegetated buffers between drainage outfalls for culverts, dips, and waterbars and the entry point to the watercourse
- The drainage system should have structures at stream crossings to direct stream channel overflows back into the stream channel

Hydrologic function—Soil hydrologic function is the ability of the soil to absorb, store, and transmit water, both vertically and horizontally. Changes in soil bulk density, soil structure, and ground cover can alter the hydrologic function of the soil.

Hydrologic unit (HU)—A hydrologic unit is a drainage area delineated to nest in a multi-level, hierarchical drainage system. Its boundaries are defined by hydrographic and topographic criteria that delineate an area of land upstream from a specific point on a river, stream, or similar surface waters. A hydrologic unit can accept surface water directly from upstream drainage areas, and indirectly from associated surface areas such as remnant, non-contributing, and diversions to form a drainage area with single or multiple outlet points. Hydrologic units are only synonymous with classic watersheds when their boundaries include all the source area contributing surface water to a single defined outlet point

Hydrologic unit code (HUC)—The numeric identifier of a specific hydrologic unit consisting of a 2-digit sequence for each specific level within the delineation hierarchy.

HUC 8 refers to the 8-digit code of a subbasin HU that is generally 250,000 to 450,000 acres in size (previously referred to 4th field HUC).

HUC 10 refers to the 10-digit code of a watershed HU that generally ranges from 40,000 to 250,000 acres in size (previously referred to 5th field HUC)..

HUC12 refers to the 12-digit code of a subwatershed HU that generally ranges from 10,000 to 40,000 acres in size (previously referred to 5th field HUC).

Impaired soil function—When any or a combination of soil quality indicators is altered to a point where a soil can no longer provide an ecological function then its quality or productivity is impaired. Active restoration may be required to restore soil function.

Instream flow—Streamflow regime required to satisfy a mixture of conjunctive demands being placed on water while it is in the stream.

Integrated pest management—A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studied and weighed.

Interim management (FSH 1909.12 Chapter 80 Section 84)—Management prescriptions for certain activities within suitable Wild and Scenic Rivers.

Intermediate timber harvest—A collective term for any treatment or tending designed to enhance growth, quality, vigor, and composition of the stand after establishment or regeneration and prior to final harvest.

Intermittent stored service—An existing road where future use is expected but not known and is currently closed to vehicle traffic. The road is hydrologically stabilized and left in a condition in which there is little risk to resources if maintenance is not performed**.**

Invasive species—Executive Order 13112 defines an invasive species as "an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health." The Forest Service relies on Executive Order 13112 to provide the basis for labeling certain organisms as invasive. Based on this definition, the labeling of a species as "invasive" requires closely examining both the origin and effects of the species. The key is that the species must cause, or be likely to cause, harm and be exotic to the ecosystem it has infested before we can consider labeling it as "invasive". Thus, native pests are not considered "invasive", even though they may cause harm. Invasive species infest both aquatic and terrestrial areas and can be identified within any of the following four taxonomic categories: Plants, Vertebrates, Invertebrates, and Pathogens. Additional information on this definition can be found in Executive Order 13112.

Inventoried Roadless Rule lands—Areas designated pursuant to 36 CFR §294 Subpart C. These areas are identified in a set of maps maintained at the national headquarters office of the Forest Service.

Landscape—A defined area irrespective of ownership or other artificial boundaries, such as a spatial mosaic of terrestrial and aquatic ecosystems, landforms, and plant communities, repeated in similar form throughout such a defined area.

Landslide prone—An area deemed at high or very high risk of mass failure based on a combination of factors including geology, soil properties, and slope.

Legislatively mandated study rivers—Rivers that Congress has identified under section 5(a) of the WSR Act for study to determine potential inclusion in the National System. FSH 1909.12 Chapter 80

Long-term sustained yield capacity (LTSYC)—The highest uniform wood yield from lands being managed for timber production that may be sustained under specified management intensities consistent with multiple-use objectives.

Lynx analysis units (LAU)—An area of at least the size used by an individual lynx, from about 25 to 50 square miles. A project analysis unit upon which direct, indirect, and cumulative effects analyses are performed.

Maintain (ecological)—To keep in existence or continuance of the desired ecological condition in terms of its desired composition, structure, and processes. Depending upon the circumstance, ecological conditions may be maintained by active or passive management or both.

Maintenance—The upkeep of the entire forest development transportation facility including surface and shoulders, parking and side areas, structures, and such traffic-control devices as are necessary for its safe and efficient utilization.

Management activity—Any activity that is carried out or authorized by the Forest that would result in impacts on natural resources or change human use of the Forest.

Management area (MA)—A land area identified within the planning area that has the same set of applicable plan components. A management area does not have to be spatially contiguous.

Mechanized uses—Commonly refers to either vehicles used by recreational visitors as their mode of travel or mechanical transport devices used by visitors for transporting equipment and/or supplies, or in support of recreational activities such as hunting. For example, bicycles, fat tire winter bikes and some accessibility devices are mechanized modes of travel; game carts, wheelbarrows, etc. are mechanical transport devices in support of recreational activities.

Minerals-Locatable—Those hard rock minerals that are mined and processed for the recovery of metals. They also may include certain nonmetallic minerals and uncommon varieties of mineral materials, such as valuable and distinctive deposits of limestone or silica.

Minerals-Leasable—Coal, oil, gas, phosphate, sodium, potassium, oil shale, sulphur, and geothermal resources.

Minerals-Materials (Saleable)—A collective term to describe common varieties of sand, gravel, stone, pumice, pumicite, cinders, clay, and other similar materials. Common varieties do not include deposits of those materials that may be locatable.

Minimum impact suppression tactics (MIST)—The concept of Minimum Impact Suppression Tactics is to use the minimum amount of forces necessary to effectively achieve fire management protection objectives. It implies a greater sensitivity to the impacts of suppression tactics and their long-term effects, when determining how to implement an appropriate suppression response. Fire managers and firefighters select tactics that have minimal impact to values at risk. Minimum Impact Suppression Tactics is not intended to represent a separate or distinct classification of firefighting tactics but rather a mindset of how to suppress a wildfire while minimizing the long-term effects of the suppression action on other resources. The principle of fighting fire aggressively but providing for safety first will not be compromised in the process and when selecting an appropriate suppression response, firefighter safety must remain the highest concern.

Monitoring—A systematic process of collecting information to evaluate effects of actions or changes in conditions or relationships.

Motor vehicle—Any vehicle which is self-propelled, other than: (1) A vehicle operated on rails; and (2) Any wheelchair or mobility device, including one that is battery-powered, that is designed solely for use by a mobility- impaired person for locomotion, and that is suitable for use in an indoor pedestrian area (36 CFR 212.1).

Motor vehicle use map (MVUM)—A map reflecting designated roads, trails, and areas on an administrative unit or a ranger district of the National Forest System (36 CFR 212.1).

Municipal supply watershed—A watershed that serves a "public water system" as that term is defined in the SDWA (42 U.S.C. § 300f(4)), as amended (42 U.S.C. §§ 300f, *et seq*.); or as defined in state safe drinking water statutes or regulations (FSM 2542.05).

National Register criteria—A district, site, building, structure, or object must meet one of the following four criterion and have integrity:

- that are associated with events that have made a significant contribution to the broad patterns of our history; or
- that are associated with the lives of persons significant in our past; or
- that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- that have yielded, or may be likely to yield, information important in prehistory or history.

National Register integrity: Historic properties either retain integrity (e.g., their ability to convey their significance), or they do not. Within the concept of integrity, the National Register criteria recognizes seven aspects or qualities, in various combinations, consisting of: location; design; setting; materials; workmanship; feeling; and association. To be listed in the National Register of Historic Places, a property must not only be shown to be significant under the National Register criteria, but it also must have integrity. The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance. To retain historic integrity a property will always possess several, and usually most, of the seven categories. The retention of specific aspects of integrity is paramount for a property to convey its significance. Determining which of these aspects are most important to a particular property requires knowing why, where, and when the property is significant.

National Register of Historic Places Eligible Sites—Includes both properties formally determined as such in accordance with regulations of the Secretary of the Interior and all other properties that meet the National Register criteria (36 CFR 60.4).

Native species—An organism that was historically or is present in a particular ecosystem as a result of natural migratory or evolutionary processes; and not as a result of an accidental or deliberate introduction into that ecosystem. An organism's presence and evolution (adaptation) in an area are determined by climate, soil, and other biotic and abiotic factors.

Natural Range of Variation (NRV)—Spatial and temporal variation in ecosystem characteristics under historic disturbance regimes during a reference period. The reference period considered should be sufficiently long to include the full range of variation produced by dominant natural disturbance regimes, often several centuries, for such disturbances as fire and flooding and should also include short-term variation and cycles in climate. "Natural range of variation" (NRV) is a term used synonymously with historic range of variation or range of natural variation. The NRV is a tool for assessing ecological integrity, and does not necessarily constitute a management target or desired condition. The NRV can help identify key structural, functional, compositional, and connectivity characteristics, for which plan components may be important for either maintenance or restoration of such ecological conditions.

Non-game species—Those species of animals that are not managed as a sport hunting resource.

OHV (Off -highway vehicle)—Any motor vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain. (36 CFR Part IV, 212.1)

Old forest habitat—Forests that are characterized by large, old trees and decadence (i.e. dead trees, both standing and down).

Outstandingly remarkable value—A river related value that is a unique, rare, or exemplary feature that is significant when compared with similar values from other rivers at a regional or national scale. The Wild and Scenic Rivers Act includes scenic, recreational, geologic, fisheries, wildlife, historic, cultural or other similar values as outstandingly remarkable values. River values should be located within ¼ mile of the river, contribute substantially to the functioning of the river ecosystem, or owe their location or existence to the presence of the river.

OSV (Over-snow vehicle)—A motor vehicle that is designed for use over snow and that runs on a track or tracks and/or a ski or skis, while in use over snow. (36 CFR Part IV, 212.1)

Patch—An area of vegetation that is relatively homogeneous that differs from surrounding vegetation.

Pattern—Number, frequency, size, and juxtaposition of landscape elements (stands and patches) that are important to the determination or interpretation of ecological processes.

Peat— Organic matter (the dead remains of plants) deposited under water-soaked conditions as a result of incomplete decomposition. Peat accumulates when the rate of deposition of dead plant matter (usually sedges or sphagnum mosses) exceeds the rate of decomposition.

Peatlands—Any waterlogged area containing an accumulation of peat 30 cm or more thick. Any type of peat-covered terrain, including bogs, fens, and muskegs. Once peat has developed to this depth, the availability of oxygen and nutrients essential to plant growth drops sharply, and plant roots must obtain their mineral nutrients from the saturated, oxygen-poor peat. Because nutrient cycling is limited, peatlands depend on external supplies of nutrients from either the atmosphere or inflowing, mineral-enriched water.

Plan area—The National Forest System lands covered by a plan.

Planned ignition—A fire intentionally ignited by management under an approved plan to meet specific objectives.

Population (ecological)—Organisms of the same species that occur in a particular place at a given time.

Potential stronghold watershed—Watersheds at the 5th or 6th HUC scale to be managed to emphasize protection of populations of listed and proposed aquatic species and to contribute to their conservation and recovery at the 4th HUC scale. Population strongholds would support relatively robust populations and high quality habitat that would support expansion and re-colonization to adjacent watersheds. Considerations used to determine stronghold watersheds include: (1) high genetic integrity; (2) habitat connectivity; (3) genetic or phenotypic diversity; (4) abundance/productivity; and (5) potential for expansion into adjoining watersheds.

Potential population stronghold watershed—Watersheds at the 5^{th} or 6^{th} HUC scale to be managed to restore populations of listed and proposed aquatic species and to contribute to their conservation and recovery at the 4^{th} HUC scale. Potential population stronghold watersheds would have high inherent capability to support spawning and rearing for the species identified. Objectives for management would include increasing growth and survival from direct habitat improvements and/or passive habitat and watershed management (or both), combined with re-colonization from stronghold watersheds and/or direct population recovery efforts (e.g., stocking or translocation).

Prescribed fire—See planned ignition.

Productive land base—Lands where vegetation and water resource management are the principal objectives.

Productivity—The capacity of NFS lands and their ecological systems to provide the various renewable resources in certain amounts in perpetuity. For the purposes of this Handbook, productivity is an ecological term, not an economic term.

Project area—The NFS lands covered by a project.

Reclamation—Those actions performed during or after mineral activities to shape, stabilize, revegetate, or otherwise treat the affected lands in order to achieve a safe and ecologically stable condition and land use that is consistent with long-term forest land and resource management plans and local environmental conditions.

Recreation opportunity spectrum (ROS)—A system, by which existing and desired recreation settings are defined, classified, inventoried, allocated, and monitored. Recreation settings are divided into six distinct classes (Primitive, Semi-Primitive Non-Motorized, Semi-Primitive Motorized, Road Natural, Rural, and Urban). Classifications are based on physical, social, and managerial attributes. As the names indicate, the settings follow a continuum ranging from very structured settings (urban) to those with little to no structure (primitive). Use reference to see some of the defining attributes that distinguish the 6 ROS classes. Also reference the ROS Definitions Primer Document.

Primitive (P) ROS (summer) settings encompass large, wild, remote, and predominately unmodified landscapes. These settings often coincide with designated Wilderness. Additional primitive ROS settings are scattered across the forest and surrounded by SPNM settings. Primitive ROS settings contain no motorized recreation and little probability of seeing other people. They provide quiet solitude away from roads and people, are generally free of human development, and facilitate self-reliance and discovery. Historic structures such as log ranger stations and fire lookouts are occasionally present. Signing, and other infrastructure is minimal and constructed of rustic, native or natural appearing materials.

Winter Primitive ROS settings are large, remote, wild, and predominately unmodified. Winter Primitive ROS settings provide quiet solitude away from motorized uses and people. There is no motorized activity and little probability of seeing other people. Constructed trails that are evident in the summer months are covered by snow, making these settings appear even more natural and undisturbed by human activities.

Semi-Primitive Non-Motorized (SPNM) ROS (summer) settings provide opportunities for exploration, challenge, and self-reliance. Rustic structures such as signs and foot bridges are occasionally present to direct use and/or protect the setting's natural and cultural resources. These rustic constructed features are built from native materials or those that mimic native materials. Closed roads may be present but do not dominate the landscape or detract from the SPNM experience of visitors. These settings are free of motorized recreation travel but mechanized travel may be present.

Winter Semi-Primitive Non-Motorized (SPNM) ROS settings provide backcountry skiing, snowboarding, and snowshoeing opportunities. Trails are un-groomed and often not marked. Rustic facilities, such as historic cabins and yurts may exist but are rare.

Semi-Primitive Motorized (SPM) ROS (summer) settings provide motorized recreation opportunities in backcountry settings. Routes are designed for Off Highway Vehicles (OHVs) and high clearance vehicles that connect to local communities, access key destinations and vantage points, provide short day trips on scenic loops or facilitate longer and even overnight, expeditions. Visitors challenge themselves as they explore vast, rugged landscapes. Mountain bikes and other mechanized equipment may also be present. Facilities are rustic and are used for the purpose of protecting the setting's natural and cultural resources. Bridges may be present to accommodate foot, horse and ATV traffic but are built from native or natural appearing materials that blend with the surrounding landscape and maintain the semi-primitive character of the setting. There may also be nodes that function as portals for visitors to park their ATVs and explore adjacent Semi-Primitive Non-Motorized and Primitive settings on foot.

Winter Semi-Primitive Motorized (SPM) ROS settings provide backcountry skiing and snowmobiling opportunities. Routes are typically un-groomed but are often signed and marked. There are vast areas to travel cross-country, offering visitors an opportunity for exploration and challenge. Occasionally, historic cabins or warming huts are available for short breaks or overnight use. Guided winter trips may occur in this area. There may be landing areas for ski-planes.

Roaded Natural (RN) ROS (summer) settings are often referred to as front country recreation areas where forest management activities are evident. This setting is managed as natural appearing with nodes and corridors of development that support higher concentrations of use, user comfort, and social interaction. The road system is well defined and can accommodate sedan travel. There is a mix of motorized and non-motorized recreation occurring in this setting. Sanitation, potable water, interpretive signing, and other amenities are strategically placed to serve as destination points and/or portals to adjacent backcountry settings. Signing, facilities, bridges and other infrastructure are constructed of native materials or natural appearing materials that blend with and compliment the surrounding natural setting.

Winter Roaded Natural (RN) ROS settings support higher concentrations of use, user comfort, and social interaction. The road system is plowed and accommodates sedan travel. Winter trails are routinely groomed and may have ancillary facilities such as warming huts, restrooms, trailheads and parking area. Visitor Centers, restrooms, and other structures are often maintained and available for winter use. System roads and trails often provide staging to adjacent backcountry settings (primitive, SPNM and SPM). Guided snowmobiling, dog sledding, skiing, and snowshoeing may also be present.

Rural (R) ROS settings are positioned on the fringe of communities (i.e. Elk River) and often function as an extension of those communities. These highly structured and hardened settings accommodate large group gatherings and serve as day-use destinations. Family reunions, weddings, and local special events often take place here. These settings also function as outdoor classrooms for interpretive programs and other structured learning. Roads and parking areas are generally paved and structures and facilities provide shelter, sanitation, potable water and other creature comforts.

Winter Rural (R) ROS settings provide staging to adjacent winter settings and opportunities. These areas are accessed from paved and plowed roads and are generally close to population centers. Warming huts or other shelters, sanitation, and information and education are commonly present. Parking areas are large and plowed. Entry points and routes are signed and lead snowmobiles to adjacent RN and SPM settings. Non-motorized trails are also typically groomed for skate skiing, and cross-country skiing. Rural winter settings provide quick and convenient access for communities and families to celebrate holidays, conduct racing events, walk the dog, or simply get some exercise.

Recreation opportunities—An opportunity to participate in a specific recreation activity in a particular recreation setting to enjoy desired recreation experiences and other benefits that accrue. Recreation opportunities include non-motorized, motorized, developed, and dispersed recreation on land, water, and in the air.

Recreation setting—The social, managerial, and physical attributes of a place that, when combined, provide a distinct set of recreation opportunities. The Forest Service uses the recreation opportunity spectrum to define recreation settings and categorize them into six distinct classes: primitive, semi-primitive non-motorized, semi-primitive motorized, roaded natural, rural, and urban. (36 CFR 219.19)

Recreation sites— Specific places in the Forest other than roads and trails that are used for recreational activities. These sites include a wide range of recreational activities and associated development. These sites include highly developed facilities like ski areas, resorts, and campgrounds. It also includes dispersed recreation sites that have few or no improvements but show the effects of repeated recreational use.

Recreation supply—The available (past, current, predicted, and desired) type, amount, and condition of recreation settings and opportunities

Resilience—The ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organization, and the capacity to adapt to stress and change.

Restoration—The process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. Ecological restoration focuses on reestablishing the composition, structure, pattern, and ecological processes necessary to facilitate terrestrial and aquatic ecosystems sustainability, resilience, and health under current and future conditions.

Right-of-way (ROW)—Public or National Forest System lands authorized to be used or occupied pursuant to a ROW grant or special use authorization.

Riparian areas—Three-dimensional ecotones [the transition zone between two adjoining communities] of interaction that include terrestrial and aquatic ecosystems that extend down into the groundwater, up above the canopy, outward across the floodplain, up the near-slopes that drain to the water, laterally into the terrestrial ecosystem, and along the water course at variable widths.

River/River segment—A flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, rills, and small lakes. The term is used interchangeably with river segment and applies to the particular segment under consideration. FSH 1909.12 Chapter 80

Road—A motor vehicle route over 50 inches wide, unless identified and managed as a trail.

Road construction—FSM 7705 defines road construction or reconstruction together as the supervising, inspecting, actual building, and incurrence of all costs incidental to the construction or reconstruction of a road (36 CFR 212.1).

Road maintenance—The objective of road maintenance is to provide for safe and efficient travel; access for administration, utilization and protection of NFS lands; and protection of the environment, adjacent resources, and public investment (FSM 7730.2). The term road maintenance is defined at FSM 7705 as the "ongoing upkeep of a road necessary to maintain or restore the road in accordance with its road management objectives (FSM 7714)." FSH 7709.59 62.1 describes the scope of road maintenance to "include any expenditure in the repair or upkeep of a road necessary to perpetuate the road and provide for its safe use. Work items may include surface rock replacement, seal coats and asphalt overlays, bridge replacement, slide removal, and other items that contribute to the preservation of the existing road. Road maintenance is not intended to substantially improve conditions above those originally constructed; however, there may be a need for adding to or modifying the original conditions without increasing the service provided. Typical examples of this include installing additional minor culverts and traffic control devices, implementing traffic management strategies, placing small quantities of spot surfacing, and revegetating cut and fill slopes."

Road reconstruction—FSM 7705 defines road construction or reconstruction together as the supervising, inspecting, actual building, and incurrence of all costs incidental to the construction or reconstruction of a road (36 CFR 212.1).
In practical terms, road reconstruction is conducted when the required work items to maintain or restore a road to its RMOs exceed what is expected during routine road maintenance. Additionally, work performed to upgrade the road's service level above that for which it was originally constructed, to accommodate commercial haul or meet the needs of additional traffic, to realign an existing road for water quality protection, or to repair a road after natural disaster would be considered reconstruction.

Salvage cutting or salvage logging—The removal of dead trees or trees being damaged or dying due to injurious agents other than competition, to recover value that would otherwise be lost.

Scenic Character—A combination of the physical, biological, and cultural images that gives an area its scenic identity and contributes to its sense of place. Scenic character provides a frame of reference from which to determine scenic attractiveness and to measure scenic integrity.

Scenic Integrity Objectives (SIOs)—Reflect the desired level of intactness of positive attributes (biophysical and cultural) identified in scenic character descriptions. SIOs are an integral component of the forest's recreation settings, opportunities, and experiences.

Very High Scenic Integrity Areas—Found in the forest's Wilderness areas, Research Natural Areas, and primitive ROS settings. These rugged, steep, and remote landscapes contain little to no evidence of management and evolve through natural processes and disturbance regimes.

High Scenic Integrity Areas—Coincide with landscapes in which landscape character attributes "appear" intact. They often interface with rural landscapes, residential areas, small towns, travel routes, recreation destinations, and other private lands. Although some management activities have altered or influenced natural processes and disturbance regimes, the management activities do not dominate the landscape.

Moderate Scenic Integrity Areas—Occur across the forest and reflect areas in which management activities have, and continue to be visible. The deviations created on the landscape, although visible, are not dominant. The management activities are subordinate to the attributes described in the scenic character of the GA.

Low scenic integrity areas—Typically limited to those landscapes containing active and repeated management to extract forest products. Management activities, although visible and sometimes a dominant feature on the landscape, employ techniques that repeat lines, forms, colors, and textures found in the natural landscape and described in scenic character.

Scenery Management System—Provides consistent terminology, processes, and protocols to define the relative value and importance of scenery (existing and desired) on national forest system lands. (USDA Dept. of Ag. Handbook 701)

Section 5(a) study rivers—See Legislatively Mandated Study Rivers. FSH 1909.12 Chapter 80

Section 5(d)(1) Study Rivers or Section 5(d)(1) Eligible or Suitable Study Rivers—See Forest Service-Identified Study Rivers. FSH 1909.12 Chapter 80

Silvicultural practices—Activities that control the establishment, composition, structure, and function of forested ecosystems.

Silvicultural prescriptions—A silvicultural prescription is a written document that describes in detail the management activities needed to implement a silvicultural treatment or treatment sequence. The prescription is based on an examination of the stand being proposed for management. The prescription documents the results of an analysis of present and anticipated future stand conditions and evaluates this in terms of management direction. It also describes the desired future vegetation conditions in measurable terms.

Size class—Size class is based on basal area weighted diameter of the plot/stand. Weighted diameter is calculated then classification is made as follows according to weighted diameter:

Seedling/sapling: 0.0 – 4.9 inch DBH (if basal area weighted diameter is 0.0, must have 100 or more trees per acre)

Small: 5.0 – 9.9 inch

Medium: 10.0 – 14.9 inch

Large: 15.0 +

Snag—A standing dead tree usually greater than five feet in height and six inches in diameter at breast height (DBH).

Soil productivity—The inherent capacity of the soil resource to support appropriate site-specific biological resource management objectives, which includes the growth of specified plants, plant communities, or a sequence of plant communities to support multiple land uses.

Soil quality—The capacity of a specific kind of soil to function, within natural or managed ecosystem boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality, and support human health and habitation and ecosystem health.

Soil quality indicator—A quantitative or qualitative measure used to estimate soil functional capacity. Indicators should be adequately sensitive to change, accurately reflect the processes or biophysical mechanisms relevant to the function of interest, and be cost effective and relatively easy and practical to measure.

Source water protection area—A contributing area surrounding a public water system supply intake that is designed to protect the integrity of the water source and that has been formally designated under the SDWA (42 U.S.C. §§ 300h-6, 300h-7, and 300j-13), the CWA, or State equivalent, such as critical aquifer or wellhead protection areas.

Special use authorization—A permit, term permit, lease, or easement that allows occupancy, use, rights, or privileges of NFS land.

Species of conservation concern (SCC)—A species of conservation concern is a species, other than federally recognized threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area.

Stand replacement fire—A fire severity classification where at least 75 percent average top-kill of vegetation occurs within a typical fire perimeter.

Structure (stand)—The horizontal and vertical distribution of components of a forest stand including: the height, diameter, crown layers, and stems of trees, shrubs, herbaceous understory, snags, and down woody debris.

Study process—The process of inventorying rivers to determine if the rivers are eligible for inclusion in the National System and the process of evaluating eligible rivers to determine if the rivers are suitable for inclusion in the National System.

Substantive formal comments—Written comments submitted to, or oral comments recorded by, the responsible official or his designee during an opportunity for public participation provided during the planning process (secs. 219.4 and 219.16), and attributed to the individual or entity providing them. Comments are considered substantive when they are within the scope of the proposal, are specific to the proposal, have a direct relationship to the proposal, and include supporting reasons for the responsible official to consider.

Suitable habitat—Habitat that currently has both the fixed and variable stand attributes for a given species habitat requirements. Variable attributes change over time and may include seral stage, cover type and overstory canopy cover.

Suitable range—Those areas where livestock grazing can be economically managed to be compatible with desired conditions and objectives.

Suitable river—A river segment that has been studied and determined to be suitable for inclusion in the National Wild and Scenic River System but has not yet been statutorily designated. A river found suitable for inclusion in the National System is a river that the agency will recommend or has recommended for inclusion in the system. FSH 1909.12 Chapter 80.

Sustainability—The capability to meet the needs of the present generation without compromising the ability of future generations to meet their needs. For the purposes of this Handbook "ecological sustainability" refers to the capability of ecosystems to maintain ecological integrity; "economic sustainability" refers to the capability of society to produce and consume or otherwise benefit from goods and services including contributions to jobs and market and nonmarket benefits; and "social sustainability" refers to the capability of society to support the network of relationships, traditions, culture, and activities that connect people to the land and to one another, and support vibrant communities.

Sustainable recreation—The set of recreation settings and opportunities on the National Forest System that is ecologically, economically, and socially sustainable for present and future generations. (36 CFR 219.19). To be sustainable means that the settings and opportunities provided are compatible with other plan components that provide for ecological sustainability, foster healthy social relationships among recreationists and with the broader community, and contribute to the economics of the planning unit and surrounding communities. The focus of recreation planning within the land management planning is to provide a set of plan components that can fulfill the public interest for recreational experiences sustainably in the future.

Tall Forest—A term used to describe habitat for fisher that provide stands of forest with trees 25-50 m tall. Structural stages that proved tall forests include understory re-initiation, late successional single story, late successional multistory, and some stands within stem exclusion.

Temporary road or trail—A road or trail necessary for emergency operations or authorized by contract, permit, lease, or other written authorization that is not a forest road or a forest trail and that is not included in a forest transportation atlas.

Term grazing permit—One of four kinds of grazing permits issued by the USDA Forest Service with specific terms and conditions, and issued for a specific period of time, usually ten years.

Threatened species—Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range and which the appropriate Secretary has designated as a threatened species.

Timber harvest—The removal of trees for wood fiber utilization and other multiple-use purposes.

Timber production—The purposeful growing, tending, harvesting, and regeneration of regulated crops of trees to be cut into logs, bolts, or other round sections for industrial or consumer use. In addition, managing land to provide commercial timber products on a regulated basis with planned, scheduled entries.

Traditional cultural areas—Those areas of the forest used by American Indians for traditional activities and often referred to as "religious use areas" or "sacred areas." They may include areas traditionally used for gathering of special forest products.

Trail—As defined by 36 CFR 212.1, a trail is a route 50 inches or less in width or a route over 50 inches wide that is identified and managed as a trail.

Trail (Forest Trail)—A trail wholly or partly within or adjacent to and serving the NFS that the Forest Service determines is necessary for the protection, administration, and utilization of the NFS and the use and development of its resources.

Trail (National Forest System Trail)—A forest trail, other than a trail which has been authorized by a legally documented right-of-way held by a state, county, or other local public road authority.

Trail classification—A numeric scale (0 through 5) to define attributes of a constructed trail. 0 is the least developed and 5 is the most developed. See Trail Class Matrix document for more detail. Trail class settings 1 to 3 are appropriate in primitive, semi-primitive non-motorized, and semi-primitive motorized ROS settings.

Trail management objective—Trail Management Objectives (TMOs) define the intended purpose and management of a NFS trail. A TMO documents the five Trail Fundamentals, ROS classifications, and travel management strategies as they apply to an NFS trail. (FSH 7709.55, Chapter 10) See Trail Management Objective Overview document for more detail.

Transitory forage—Transitory forage is produced on forested lands that are suitable for livestock grazing for a limited time following a complete or partial forest removal.

Unauthorized route (road or trail)—A road or trail that is not a forest road or trail or a temporary road or trail and that is not included in a forest transportation atlas.

Unplanned ignitions—A wildland fire resulting from an unplanned event. Unplanned ignitions are caused by lightning, volcanoes, and unauthorized or accidental human-caused actions.

Vegetation management—Activities designed primarily to promote the health of forest vegetation in order to achieve desired results. When vegetation is actively managed, it means that it is manipulated or changed on purpose by humans to produce desired results. Where active management of vegetation is required, techniques are based on the latest scientific research and mimic natural processes as closely as possible. Vegetation management is the practice of manipulating the species mix, age, fuel load, and/or distribution of wildland plant communities within a prescribed or designated management area in order to achieve desired results. It includes prescribed burning, the use of unplanned fire ignitions, grazing, chemical applications, biomass harvesting, and any other economically feasible methods of enhancing, retarding, modifying, transplanting, or removing the aboveground parts of plants.

Viable population—A population of a species that continues to persist over the long term with sufficient distribution to be resilient and adaptable to stressors and likely future environments.

Watershed— A region or land area drained by a single stream, river, or drainage network; a drainage basin.

Wetlands—Those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances do or would support a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, peatlands, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

Wild and Scenic River—A river designated by Congress as part of the National Wild and Scenic Rivers System that was established in the Wild and Scenic Rivers Act of 1968 916 U.S.C. 1271 (note), 1271-1287). 36 CFR 219.19

Wild and Scenic River classification—Identification of the class (wild, scenic, or recreational) that appropriately describes a river or river segment, based on the criteria established in section 2(b) of the WSR Act. FSH 1909.12 Chapter 80

Wild River Areas—Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

Scenic River Areas—Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Recreational River Areas—Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Wild and Scenic River determination—A finding in the study document that the river segment meets the criteria to be first eligible, and then later, suitable for inclusion in the National System. (FSH 1909.12 Chapter 80)

Wilderness character— Wilderness character may be described as the combination of biophysical, experiential, and symbolic ideals that distinguish wilderness from all other lands. The definition of wilderness from section 2 (c) of the Wilderness Act identifies four qualities of wilderness related to wilderness character:

Untrammeled – wilderness is essentially unhindered and free from modern human control or manipulation;

Natural – wilderness ecological systems are substantially free from the effects of modern civilization;

Undeveloped – wilderness is essentially without permanent improvements or modern human occupation; and

Outstanding opportunities for solitude or a primitive and unconfined type of recreation – Wilderness provide outstanding opportunities for people to experience solitude or primitive and unconfined recreation, including the values of inspiration and physical and mental challenge.

Wildfire—Unplanned ignitions of a wildland fire (such as a fire caused by lightning or unauthorized and accidental human-caused fires) and escaped prescribed fires.

Wildland fire—A general term describing any non-structure fire that occurs in the wildland. Two distinct types of wildland fire have been defined and include planned ignitions (prescribed fire) and natural, unplanned fire (wildfire).

Wildland urban interface (WUI)—The term "wildland urban interface" means either:

(A) an area within or adjacent to an at-risk community that is identified in recommendations to the Secretary in a community wildfire protection plan; or

(B) in the case of any area for which a community wildfire protection plan is not in effect,

(i) an area extending ½-mile from the boundary of an at-risk community;

(ii) an area within 1 ½ miles of the boundary of an at-risk community, including any land that—

(I) has a sustained steep slope that creates the potential for wildfire behavior endangering the at-risk community;

(II) has a geographic feature that aids in creating an effective fire break, such as a road or ridge top; or

(III) is in condition class 3, as documented by the Secretary in the project-specific environmental analysis; and

(iii) an area that is adjacent to an evacuation route for an at-risk community that the Secretary determines, in cooperation with the at-risk community, requires hazardous fuel reduction to provide safer evacuation from the at-risk community.

Acronyms

AMP Allotment Management Plan

ATV All-terrain Vehicle

BLM Bureau of Land Management

BMP Best Management Practices

CFR Code of Federal Regulations

CPZ Community Protection Zone

DBH Diameter Breast Height

EIS Environmental Impact Statement

EPA Environmental Protection Agency

ESA Endangered Species Act

FIS Forest Inventory and Analysis

FS Forest Service

FSH Forest Service Handbook

FSM Forest Service Manual

FWS U.S. Fish and Wildlife Service

GDE Groundwater Dependent Ecosystems

HM Head Month

HUC Hydrologic Unit Code

IDFG Idaho Department of Fish and Game

LAU Lynx Analysis Unit

LTSYC Long-Term Sustained Yield Capacity

MA Management Area

MBF Thousand Board Feet

MCF Thousand Cubic Feet

MMBF Million Board Feet

MMCF Million Cubic Feet

MVUM Motor Vehicle Use Map

NEPA National Environmental Policy Act

NFMA National Forest Management Act

NFS National Forest System

NP-CW Nez Perce-Clearwater National Forests

OHV Off-Highway Vehicle

ORV Outstanding Remarkable Values

PCT Pre-commercial Thin

PSQ Planned Sale Quantity

RCA Riparian Conservation Area

RNA Research Natural Area

ROS Recreation Opportunity Spectrum

SIO Scenic Integrity Objective

TMDL Total Maximum Daily Load

TPSQ Total Planned Sale Quantity

USDA U.S. Department of Agriculture

WSR Wild and Scenic River

WSA Wilderness Study Area

WUI Wildland Urban Interface

Report 15-4 v1.0 **November 13, 2015**

Region 1 Existing and Potential Vegetation Groupings used for Broad-level Analysis and Monitoring

Amanda Milburn [1]
Barry Bollenbacher [2]
Mary Manning [2]
Renate Bush [2]

[1]USDA Forest Service, Helena and Lewis & Clark National Forest
[2]USDA Forest Service, Region 1, Renewable Resource Management Staff

Contents

I. Introduction

Vegetation classifications are necessary for a variety of analysis purposes. Region 1 utilizes both potential vegetation and existing vegetation classifications to describe forested and non-forested vegetation. Potential vegetation classifications are assemblages of *habitat types*; whereas existing vegetation classifications are assemblages of *dominance types*. The Region has identified potential vegetation groups (broad and mid-level groupings of habitat types) and existing vegetation groups, or cover types (Helms 1998), that are recommended for use at the broad levels to provide consistent analysis and monitoring. Multiple classifications exist, many of which are hierarchical and the applicability of their use depends on

the geographic extent and purpose of analysis. It is desirable to present a consistent depiction of the vegetation groupings used in Region 1.

Existing vegetation groups are based on the R1 Classification System (Barber and others, 2011), a consistent framework for depicting existing forested vegetation classes and conditions. The classification for non-forested existing vegetation is currently under development.

Several habitat type classifications which have been developed over the years in the Region were reviewed. New broad- and mid-level habitat type groups are presented here and compared to commonly used classifications. A clear hierarchical relationship between commonly used habitat type groupings and these Regional groups is provided to the extent possible. Finer-scale groups used for analysis may nest within these broad groups.

Vegetation groups are applied consistently to inventory data housed in FSVeg and FSVeg Spatial and summarized in the R1 Summary Database and Stand Exam Summary Database. The cross-walks used to assign habitat type groups and cover types based on the field collected habitat type and broad dominance type are documented in the *R1 Inventory Look-up Tables Database* (2015).

R1-VMap (http://www.fs.usda.gov/detailfull/r1/landmanagement/gis/?cid=stelprdb5331054&width=full) is the Region's spatial database depicting existing vegetation. Cover types can be derived from Dominance Group6040 classes. The Region is currently developing a potential vegetation spatial dataset. Currently, the only consistently derived and contiguous layer across the Region is the R1 PVT Layer developed by Jeff Jones for the Cohesive Strategy. For many Regional and Forest applications, this is being used until the R1 Habitat Type Groups spatial dataset is completed. Some Forests also use the Habitat Type information stored in FSVeg Spatial.

The relationship between vegetation groups and Region 1 inventory and map products is shown in Table 1.

Table 1: Overview of Vegetation Group Types and Data Sources in Region 1

Vegetation Group	Broad Group Names	Mid-level Groups used in Region 1	Base Attributes	Habitat Type Groups[1] names	Spatial Depiction
Potential	R1 Broad PVT	R1 Habitat Type Groups;Western MT/ID Habitat Type Groups (USDA 2005); Old Growth Habitat Type Groups (Green et al 1992); Potential Vegetation Types, PVT (Jones 2005)	Habitat Type Reference and Habitat Type	Broad: Broad_PVT Mid: R1_Habitat_Type_Group, LCFPG05_PVT, EMT_OGG_A[1], WMT_OGG_A[1], NID_OGG_A[1], PVT_OG, PVT_MT_04_A[1], PVT_ID_04_A[1], MTID_PVT_1004	R1 PVT Layer (Jones) [2]
Existing	R1 Cover Type	Dominance Group 6040, Dominance Group 40% Plurality, Dominance Group 60% Plurality	Dominance Group 6040 derived from inventory data	Broad: Cover_type Mid: Dom_Grp_6040_inv, Dom_Mid_40_inv, Dom_Mid_60_inv	R1-VMap

[1] These habitat type groups are defined in 01_LUT_HT_PVT in the *R1 Inventory Look-up Tables Database* (2015) based on Habitat Type and the reference manual. Many are delivered in FSVeg Spatial and the R1 Summary Database for FIA, Intensified Grid, and stand exam data.

[2]Information about R1 PVT Layer (Jone's PVT) spatial depiction
http://www.fs.usda.gov/detail/r1/landmanagement/gis/?cid=fsp5_030918

II. Potential Vegetation

Potential vegetation for inventory data is based on habitat types classified in the field using the appropriate literature reference. Recently, potential vegetation grouping logic was reviewed and updated for forested and non-forested types by Regional vegetation experts, with strong consideration given to work done in 2005 for western Montana and Idaho (USDA 2005). All valid habitat types found in Region 1 and their associated references were reviewed during this process.

R1 Habitat Type Groups is a grouping of habitat types having similar biophysical characteristics, with similarities in historical disturbance regimes that have affected a similar range of tree composition, structural characteristics, productivity, and successional trends into mature forests. These groups can be effectively mapped to show spatial extent on the landscape. Landscape topography can influence the extent and size of patches across these biophysical settings. **R1 Broad PVT** is a coarse grouping of R1 Habitat Type Groups that is applicable for broad level analysis and monitoring.

Table 1 shows potential vegetation groups commonly used in Region 1 for analysis. The way that habitat types are assigned to these various potential vegetation groups is documented in *R1 Inventory Data Look-up Tables Database,* 01_LUT_HT_PVT. Tables 2 and 3 display the relationship of several common PVT groups used in R1 with the R1 Habitat Type Groups and R1 Broad PVT for forested and non-forested habitat types respectively. These PVT groups have been classified for FIA and Intensified Grid data in the R1 Summary Database (Bush, Reyes, 2014). These are found in the R1_FSVeg_PSU_Site and R1_FSVeg_Site tables. These same attributes are found in the R1_FSVeg_Setting_Site and R1_FSVeg_Site tables of the Stand Exam Summary Database for project-level analysis needs (*R1 FSVeg Reports and Utilities User's Guide).*

Mapping potential vegetation from imagery alone is impossible, modeling it with biophysical surfaces and climate data is not trivial. Currently, the only consistently derived contiguous layer of potential vegetation is the ***R1 PVT layer,*** also known as the "Jones" layer, which was developed for the Cohesive Strategy in 2004 utilizing multiple data sources. In some cases the classification differs for types in Montana versus Idaho. The cross walk between field recorded habitat type and the R1 PVT groups developed by Jones is documented in *R1 Inventory Data Look-up Tables Database,* and depicted in Tables 2 and 3 as well.

Table 2: R1 Forested Potential Vegetation Group Crosswalk. Labels in parenthesis are the column name in 01_LUT_HT_PVT in the *R1 Inventory Data Look-up Tables Database.*

R1 Broad PVT (R1_Broad_PVT)	R1 Habitat Type Groups (R1_Habitat_type_group)	West MT/ID habitat type groups 2005 (LCFPG05_PVT and LCFPG_Desc)	R1 MT PVT [2] (PVT_MT04_A)	R1 ID PVT [2] (PVT_ID04_A)	ADP[1] Habitat Type Code
Warm Dry	Hot Dry	*1 Warm & Dry*	pifl	Pifl	000, 040, 050, 051, 052, 070, 090[6], 091[6], 092[6], 093[6], 094[6], 095[6]
	Warm Dry	*1 Warm & Dry*	pipo	pipo	100, 110, 130, 140, 141, 142, 160, 161, 162
				none	103[7], 104[7], 100032[8], 100033[8], 100034[8], 100035[8], 100037[8], 105[7], 106[7], 150
			psme1	psme1	200, 210, 220, 230
				none	205[7], 390[7]
			psme2	psme2	311, 380
			psme3	psme3	321
		2 Mod warm & Dry	pipo	pipo	180, 181, 182
	Mod Warm Dry	*2 Mod warm & Dry*	pipo	pipo	170, 171, 172, 190
			picea	picea	430
			abgr1	abgr1	505, 506, 507, 508
			none		
			psme2	psme2	240[7], 250, 260, 261, 262, 263, 280, 281, 282, 283, 292, 310, 312, 313
			psme3	psme3	360, 320, 322, 323, 324, 330, 350, 370, 340
	Mod Warm Mod Dry	*3 moderately warm & moderately dry*	abgr2	abgr2	510, 511, 512, 515, 590, 591, 592
			abgr3	abgr3	523
			psme2	psme2	290, 291, 293
Warm Moist	Mod Warm Moist	*4 moderately warm & Moist*	abgr3	abgr3	500, 516, 517, 518, 519, 520, 521, 522, 524, 525, 526, 529
	Mod Cool Moist to Wet	*5 Moderately Cool & Moist*	thpl1	thpl1	555
			thpl2	thpl2	501, 530, 531, 532, 533, 534, 535, 545, 546, 547, 548
			tshe	tshe	502, 565, 570, 571, 572, 573, 574, 575, 576, 577, 578
		6 Moderately Cool & Wet	thpl1	thpl1	540, 541, 542, 550, 560
		7 Cool & Moist	tshe	tshe	579
Cool Moist	Cool Moist	*7 Cool & Moist*	abla2	abla2	600, 620, 621, 622, 623, 624, 625, 660, 661, 662670, 671, 673, 740
			tsme1	tsme1	685, 686, 687
			tsme2	tsme2	682
				tsme3	680
			picea	picea	400, 420, 421, 422, 460, 461, 462, 470
				none	004[9], 472[7], 475[7]
	Cool Wet	*8 Cool & Wet*	abla1	abla1	610, 630, 635, 636, 637, 650, 651, 652, 653, 654, 655
				none	631, 632
			tsme1	tsme1	675, 677
			picea	picea	410, 440, 480
	Cool Mod Dry	*9 Cool &*	abla2	abla2	663

R1 Broad PVT (R1_Broad_PVT)	R1 Habitat Type Groups (R1_Habitat_type_group)	West MT/ID habitat type groups 2005 (LCFPG05_PVT and LCFPG_Desc)	R1 MT PVT [2] (PVT_MT04_A)	R1 ID PVT [2] (PVT_ID04_A)	ADP[1] Habitat Type Code
	to Moist	*Moderately Dry*	abla3	abla3	640, 691, 693, 700, 720, 750, 770, 780, 790, 791, 792
				abla4	690
				none	607, 745
			picea	picea	450
			pico	pico	900, 910, 920, 930, 950
				none	960[7]
			tsme2	tsme2	710, 712
Cold (capable of WBP)	Cold	*10 Cold & Moderately Dry*	abla3	abla4	672, 692, 694, 731, 732, 733,
			abla4	abla4	674, 730, 800, 810, 820, 830, 831, 832
			tsme1	tsme1	676
			tsme2	tsme3	681, 711, 840, 841, 842
			tsme3	tsme3	713
			pico	pico	925, 940
	Timberline	*11 Cold*	laly	laly	860
			pial	pial	850, 870, 890

[1] *Automatic Data Processing Code (habitat type publications) - includes all codes from valid references in Region 1 for use with NRM FSVeg. Unless otherwise specified, codes are from 101 (Forest Habitat Types of Montana, Pfister and others 1977) or 110 (Forest Habitat Types of Northern Idaho: a Second Approximation, Cooper and others, 1991)*

[2] *R1 PVT's based on "Jones" metadata logic and labels.*

[3] *579 is in Group 7, Cool & Moist, in R1 HTG (2005) but is included in the Warm/Moist Broad PVT to maintain a connection with the other tshe types.*

[6] *Reference 199 = FSH 2409.21h R-1 Timber Management Data Handbook. Used in R1 until 2001.*

[7] *Reference 102= Key to Montana Forest/Woodland Habitat Types East of the Continental Divide. FIA use only.*

[8] *Reference 114= The Vegetation of the Grand River/Cedar River, Sioux, and Ashland Districts of the Custer NF: A Habitat Type Classification, Hansen and Hoffman.*

[9] *Reference 112= Classification and Management of Montana's Riparian and Wetland sites. Hansen, Boggs, Cook and others, 2005.*

Table 3: Non-forested Potential Vegetation Group Crosswalk

R1 Broad PVT (Broad_PVT)	R1 Habitat Type Groups (R1_Habitat_type_group)	R1 MT PVT [2] (PVT_MT04_A)	R1 ID PVT [2] (PVT_ID04_A)	Habitat Type[2]
Xeric Grassland	Bluebunch Wheatgrass	drygrass	drygrass	Ref 199: 015, 016, 017, 020, 065 Ref 115: 200, 500, 800 Ref 103: 47130, 47131, 47132, 47140, 47141, 47142, 47143, 47144, 47145, 47146 Ref 114: 100005, 100006, 10010, 100021, 100054, 100055,
Mesic Grassland	Western Wheatgrass	agrsmi	agrsmi	Ref 114: 100001 Ref 115: 100
	Fescue	fesida	fesida	Ref 199: 18, 39 Ref 615: GB5917, GB5922 Ref 103: 47003, 47004, 47120, 47121, 47122, 47123, 47124, 47125, 47126, 47127 Ref 114: 100023
		fessca	fessca	Ref 199: 19 Ref 103: 47110, 47111, 47112, 47113, 47114, 47115

R1 Broad PVT (Broad_PVT)	R1 Habitat Type Groups (R1_Habitat_type_group)	R1 MT PVT [2] (PVT_MT04_A)	R1 ID PVT [2] (PVT_ID04_A)	Habitat Type[2]
Mesic Shrubland	Mesic Shrubland	potfru	potfru	Ref 199: 34 Ref 103: 46620, 46621, 46622, 46623
		mesic shrub	mesic shrub	Ref 199: 030 Ref 110: 030, 031 Ref 112: 156, 157, 158, 159, 160, 161 Ref 115: 2000, 2100, Ref 114: 100052, 100056 Ref 615: SM19
Xeric Shrubland/ Woodland	Low Shrubland	sage1	sage1	Ref 199: 031 Ref 103: 46600, 46601, 46602, 46603
	Mountain Shrubland	sage4	sage4	Ref 199: 033 Ref 103: 46611, 46612, 46613
	Xeric Sagebrush	sage3	sage3	Ref 199: 032
		sage2	sage2	Ref 115: 1100, 1200 Ref 103: 46610, 46614, Ref 114: 100014, 100015
	Xeric Shrubland	dry shrub	dry shrub	Ref 103: 46201, 46301, 46630, 46632, 46633 Ref 114: 100028 Ref 115: 1400 Ref 199: 035 Ref 615: SD49
		rhus	rhus	Ref 199: 036, 037 Ref 103:46640, 46641, 46642, Ref 114: 100046, 100047, 10048
		sage 5	sage 5	Ref 114: 100013 Ref 115: 1000
	Salt Desert Shrub	saltshrub	saltshrub	Ref 199: 038 Ref 115: 1300, Ref 103: 46650, 46651, 46652 Ref 114: 100049, 100050
	Juniper Woodland	juniper	juniper	Ref 102: 151, 152 Ref 114: 100029, 100030 Ref 199: 50
Riparian/ Wetland	Aspen Woodland	poptre	poptre	Ref 102: 351, 356 Ref 112: 117, 118, 119, 120, 121 Ref 114: 100040 Ref 199: 078
	Riparian Shrub[3]	ripshrub	ripshrub	Ref 112:030, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 150, 151, 152, 153, 154, 155, SW1117, SW5112, SW5113 Ref 199:071, 072, 073, 074
	Wetland Graminoid	ripgrass	ripgrass	Ref 615: MW19 Ref 199: 021, 061, 070, Ref 112: 200, 201, 202, 203, 204, 205, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, MD3111, MM1912, MM2912, MM2914, MM2915, MM2917, MM2920, MS31111, MW3912, MW4911, MW4912 Ref 103: 47100, 47101
	Riparian Deciduous Tree	ripdecid	ripdecid	Ref 102: 301 Ref 110: 20 Ref 112: 103, 104, 105, 106, 110, 111, 112, 113, 114, 115, 116, 122, 123, 124, 125, 130

R1 Broad PVT (Broad_PVT)	R1 Habitat Type Groups (R1_Habitat_type_group)	R1 MT PVT [2] (PVT_MT04_A)	R1 ID PVT [2] (PVT_ID04_A)	Habitat Type[2]
				Ref 114: 100024 Ref 199: 60, 71, 72, 73, 74, 79
Alpine	Alpine Herbaceous	alpine	alpine	Ref 113: 001,002, 003,004,005, 006, 009, 010, 012, 013, 015, 016, 018, 019, 022, 023, 024, 025, 026, 027, 028, 029 Ref 199: 080, 081, 084
	Alpine Shrub	alpine	alpine	Ref 113: 007, 008, 011, 014, 017, 020, 021 Ref 199: 087
Sparse	Sparse	Sparse	sparse	Ref 101: 010

[1] *Manning, 2009*

[2] *Mueggler & Stewart 1980; Hansen & Hoffman 1985; Cooper et al 1987*

[3] *Not currently in mapped PVT products*

As shown in Tables 2, there is not a 1-to-1 crosswalk with forested "Jones" PVTs and other potential vegetation groups. Since Jones is currently the only spatial depiction available, assumptions are needed to use Jones PVTs as a spatial representation for R1 Habitat Type Groups. The Jones PVT labels listed in Table 4 indicate the type selected to represent a 1-to-1 relationship with R1 Habitat Type Group and R1 Broad PVT based on the *most common or abundant types,* with other rationale as noted in the footnotes. However, some Forests utilize FSVeg Spatial to map habitat type based on stand exams or other information. In this case, the habitat type can be directly translated into R1 Habitat Type Groups or R1 Broad PVT and used for mapping instead of using the Jones PVT layer. Therefore, the mapping of R1 Habitat Type Group or R1 Broad PVT could vary for some forested habitat types depending on whether the source map is Jones PVT or FSVeg Spatial. The non-forested types (Table 3) have a 1-1 match with Jones PVT groups. Also shown in Table 4 is the SIMPPLLE modeling habitat type group (HTG) used for the HLC Forest Plan Revision; this is one example, and modeling groups may be different for other Forests.

Table 4: Mapped PVT Crosswalk for Forest-Specific Analysis, HLC Revision

R1 Broad PVT	R1 Habitat Type Group	R1_MT_ID_PVT	SIMPPLLE HTG[2]
Warm Dry	Hot Dry	pifl	A1
	Warm Dry	pipo	A2
		psme1	
	Mod Warm Dry	abgr1[1]	NA
		psme2	B2
		psme3	B1
	Mod Warm Mod Dry	abgr2[1]	NA
Warm Moist	Mod Warm Moist	abgr3[1]	NA
	Mod Cool Moist	thpl2[1]	NA
		tshe[1]	
		thpl1[1]	NA
Cool Moist	Cool Moist	abla2	D3
		picea	D2
	Cool Wet	abla1	E2
		tsme1[1]	
	Cool Mod Dry to Moist	pico[3]	F1
		abla3	F2
Cold	Cold	abla4	G1
		tsme2[4]	
		tsme3[4]	NA

R1 Broad PVT	R1 Habitat Type Group	R1_MT_ID_PVT	SIMPPLLE HTG[2]
	Cold Timberline	laly	G2
		pial	
Xeric Grassland	Bluebunch Wheatgrass	drygrass	NF1A
Mesic Grassland	Western Wheatgrass	agrsmi	NF1C
	Fescue	fesida	NF1B
		fessca	
Mesic Shrubland	Mesic Shrubland	potfru	NF2A
		mesic shrub	
Xeric Shrubland/ Woodland	Low Shrubland	sage1	NF2D
	Mountain Shrubland	sage4	NF2B
	Xeric Sagebrush	sage3	NF2C
		sage2	
	Xeric Shrubland	dryshrub	NF3A
		rhus	
		sage 5	
	Salt Desert Shrub	saltshrub	NF6
	Juniper Woodland	juniper	NF3B & NF3C
Riparian/ Wetland	Aspen Woodland	poptre	NF3D
	Riparian Shrub[3]	ripshrub	NF4A & NF4B
	Wetland Graminoid	ripgrass	NF4D
	Riparian Deciduous Tree	ripdecid	NF4E
Alpine	Alpine Herbaceous & Shrub	alpine	NF5A & NF5B
Sparse	Sparse	Sparse	XX4

[1] *These types do not occur on the HLC.*

[2] *HTG's for modeling vary by Forest and SIMPPLLE analysis done in R1. Groups shown here are for the HLC.*

[3] *The pico Jones group occurs in both the Cold and Cool Moist broad PVT groups; it was crosswalked to Cool Moist for mapping because it should not have whitebark pine component, which is the key feature of the Cold group.*

[4] *The tsme2 Jones group also occurs in both the Cold and Cool Moist Broad PVT's. This is crosswalked to the Cold broad PVT because it has the potential to contain a whitebark pine component.*

III. Existing Vegetation

R1 also has classifications for existing vegetation, such as dominance types, which represent broad species groups of dominant vegetation and meet Forest Service technical guide standards (Barber and others, 2011). Unlike potential vegetation, which is generally assumed to be static, existing vegetation changes over time. **R1 Cover Types** are broad groups of existing vegetation based on dominance types. Douglas-fir (PSME) dominance types grow across a wide range of biophysical settings. Therefore, R1 Habitat Type Groups are used to determine the appropriate R1 Cover Types for the PSME dominance types. Forested R1 Cover Types can be mapped by integrating R1 VMap with Jones PVT layer. However, the classification for non-forested types is still under development therefore the non-forested R1 Cover Types will be available for inventory data and in spatial layers once finalized. In the interim, Table 5 shows non-forested cover types currently depicted in R1-VMap.

Table 5: Cover Type Crosswalk to Dominance Types (Existing Vegetation)

R1 Cover Type	Species included	DomMid40	Dom Group 6040
Ponderosa Pine ponderosapine	Ponderosa pine with components Douglas-fir, limber, juniper.	MX-PIFL2, MX-PIPO, or MX-JUNIP[1]	PIFL2, PIFL2-Imix, , PIFL2-Tmix, PIFL2-Hmix, PIPO, PIPO-Imix, PIPO-Tmix, PIPO-Hmix, JUNIP-Hmix, JUNIP-Tmix, or JUNIP-Imix[1]
Dry Douglas-fir[2] (dryDouglasfir)	Dry Douglas-fir (potential components of ponderosa pine, limber, and juniper).	(IMIX or MX-PSME) ***AND (Jones PVT = pifl, pipo, psme1, or psme) or (R1 Habitat type Group = Hot Dry or Warm Dry)***	(PSME, PSME-Imix, PSME-Hmixor IMIX) ***AND (PVT = pifl, pipo, psme1, or psme3) or (R1 Habitat type Group = Hot Dry or Warm Dry)***
Mixed Mesic Conifer [2] (mixedmesiccon)	Moist Douglas-fir, cedar, white pine, grand fir, western hemlock (potential components of lodgepole pine, spruce, subalpine fir).	MX-ABGR, MX-PIMO3, MX-THPL, MX-TSHE, MX-TSME, TMIX or [(MX-PSME or IMIX ***AND (PVT NOT pifl, pipo, psme1, or psme3) or (R1 Habitat Type Group is NOT Hot Dry or Warm Dry)***	ABGR, ABGR-Imix, ABGR-Tmix, ABGR-Hmix, PIMO3, PIMO3-Imix, PIMO3-Tmix, PIMO3-Hmix, PSME-Tmix, THPL, THPL-Imix, THPL-Tmix, THPL-Hmix, TSHE, TSHE-Imix, TSHE-Tmix, TSHE-Hmix, TSME, TSME-Imix, TSME-Tmix, TSME-Hmix, Tmix, or [(PSME, PSME-Imix, PSME-Hmix, or IMIX) ***(PVT NOT pifl, pipo, psme1, or psme3) or (R1 Habitat Type Group NOT Hot Dry or Warm Dry)***
Western larch Mixed Conifer (wlarchmixedcon)	Western larch, Douglas-fir (minor components lodgepole pine, spruce)	MX-LAOC	LAOC, LAOC-Imix, LAOC-Tmix, LAOC-Hmix
Lodgepole Pine (lodgepolepine)	Lodgepole pine (other minor components)	MX-PICO	PICO, PICO-Imix, PICO-Tmix, PICO-Hmix
Aspen/Hardwood[3] (aspen/hardwood)	Aspen, cottonwood, birch (other minor conifer components)	MX-BEPA, HMIX, MX-FRPE, MX-POPUL, or MX-POTR5	BEPA, BEPA-Imix, BEPA-Tmix, BEPA-Hmix, Hmix, FRPE, FRPE-Imix, FRPE-Tmix, FRPE-Hmix, POPUL, POPUL-Imix, POPUl-Tmix, POPUL-Hmix, POTR5, POTR5-Imix, POTR5-Tmix, POTR5-Hmix
Spruce/fir (sprucefir)	Subalpine fir, Engelmann spruce (minor lodgepole component)	MX-ABLA, MX-PIEN, or MX-TABR2	ABLA, ABLA-Imix, ABLA-Tmix, ABLA-Hmix, PIEN, PIEN-Imix, PIEN-Tmix, PIEN-Hmix, TABR2, TABR2-Imix, TABR2-Tmix, TABR2-Hmix
Whitebark pine/Alpine larch (whitebarksubalplarch)	Whitebark pine	MX-LALY or MX-PIAL	LALY, LALY-Imix, LALY-Tmix, LALY-Hmix, PIAL, PIAL-Imix, PIAL-Tmix, PIAL-Hmix
Grass	Forb mixes; Rough fescue; Idaho fescue; Western wheatgrass; Bluebunch wheatgrass, Needle-and-thread grass; Tufted hairgrass; Little bluestem; Prairie sandreed; Green needle grass; Needlegrass; Timothy; Crested wheatgrass; Blue grama; Kentucky bluegrass Cool season short grass mix; Cool season mid grass mix; Warm season mid grass mix; Warm season short grass mix; Mixed grass	Grass-Dry; Grass-Bunch; Grass-Singlestem	Grass-Dry; Grass-Bunch; Grass-Singlestem

R1 Cover Type	Species included	DomMid40	Dom Group 6040
Dry Shrub (dryshrub)	Sagebrush; Antelope Bitterbrush; Shrubby cinquefoil; Skunkbush sumac; Curl-leaf mountain mahogany; Greasewood; Rabbitbrush; Saltbush, Spinless horsebrush; Soapweed yucca	Shrub-Xeric; MX-CELE3	CELE3, CELE3-Imix, CELE3-Tmix, CELE3-Hmix
	Juniper shrub[1]	MX-JUNIP, JUNIP	JUNIP
Riparian Grass/shrub	Willow, Alder, Deciduous shrub mix; Mountain brome; Smooth brome; Dry sedge; Wet sede/spikerush/ juncus; Annual brome	Grass-Wet	Grass-Wet
Mesic Shrub	chokecherry, plum; rose; snowberry; huckleberry; mallow ninebark; white spirea; buffaloberry; evergreen shrub	Shrub-Mesic	Shrub-Mesic
Non-Vegetated	N/A	Sparse; Urban; Water	Sparse; Urban; Water

[1]The JUNIP dominance 6040 type is included in the dry shrub cover type given its common association with grass/shrub. However, juniper dominance types that include a mix of other tree species (JUNIP-Imix, JUNIP-Hmix, JUNIP-Tmix) include components of ponderosa pine, limber pine, and/or Douglas-fir, and are therefore included in the Ponderosa Pine cover type.

[2]PVT information must be used to split the PSME dominance groups to distinguish between the dry Douglas-fir and the Mixed Mesic Conifer cover types.

[3]Aspen is also depicted in potential vegetation associated with riparian types. It is included as a forested cover type to account for upland aspen that is mapped outside of riparian areas.

IV. References

Barber, Jim, D. Berglund, R. Bush. 2011. The Region 1 Existing Vegetation Classification System and its Relationship to Inventory Data and the Region 1 Existing Vegetation Map Products. Region 1 Vegetation Classification, Mapping, Inventory, and Analysis Report # 11-10. http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5332073.pdf

Bush, Renate R., B. Reyes. 2014. Overview of FIA and Intensified Grid Data. Region 1 Vegetation Classification, Mapping, Inventory, and Analysis Report #14-13 v2.0. http://fsweb.r1.fs.fed.us/forest/inv/r1_tools/Overview_FIA_Int_Grid.pdf

Bush, Renate, B. Reyes. 2014. R1 Summary Database Reports and Utilities. Region 1 Vegetation, Classification, Mapping, Inventory, and Analysis Report #14-15. http://fsweb.r1.fs.fed.us/forest/inv/r1_tools/R1_SDB_Rep_Util.pdf

Chew, Moeller, and Stalling 2012. SIMPPLLE, Version 2.5 User's Guide. USDA Forest Service, Rocky Mountain Research Station RMRS-GTR-268WWW. (Appendix A).

Cooper, S.V., K.E. Neiman, and D.W. Roberts 1991. Forest Habitat Types of Northern Idaho: A Second Approximation. USDA Forest Service, Intermountain Research Station. GTR-INT-236.

FSH 2409.21h R-1 Timber Management Data Handbook. http://fsweb.r1.fs.fed.us/forest/inv/cse_exams/legacy.shtml

Green, P.; J. Joy; D. Sirucek; W. Hann; A. Zack; and B. Nauman. 1992. Old-growth forest types of the Northern Region. Unpublished report, Missoula, MT: U.S. Department of Agriculture, Forest Service,

Northern Region. Errata corrected 2005. Green et.al. Error Correction Notes. Art Zack, Renee Lundberg, Barry Bollenbacher. Missoula, MT: USDA Forest Service, Region 1.

Hansen, Paul L.; Boggs, Keith L.; Cook, Bradley J.; and others. 1995. Classification and Management of Montana's Riparian and Wetland sites. Misc. Pub. #54. Missoula, MT: Montana Riparian Association.

Hansen, Paul, L.; Hoffman, George R. The Vegetation of the Grand River/Cedar River, Sioux, and Ashland Districts of the Custer NF: A habitat Type Classification. Gen. Tech. Rep. RM-157. T, Collins, CO: USDA FS RMFR Ex ST. 68p.

Helms, John A. 1998. The Dictionary of Forestry. The Society of American Foresters. 5400 Grosvenor Lane, Bethesda, MD 20814-2198.

Jones, Jeff 2005. A description of Methods; & R1 GIS Metadata for Jones PVT Layer

Key to Montana Forest/Woodland Habitat Types East of the Continental Divide. Developed for RMRS FIA (FIA ONLY)

Manning, Mary 1999. Non-forested Vegetation Habitat Type Groups.

Mueggler, W.F and W.L Stewart 1980. Grassland and shrubland habitat types of Western Montana. General Technical Report INT-66. Intermountain Forest and Range Experiment Station, Ogden, UT.

Pfister, R. D., B. L. Kovalchik, S. F. Arno, and R. C. Presby. 1977. Forest Habitat Types of Montana. GTR-INT-34. USDA Forest Service, Intermountain Forest & Range Experiment Station.

R1 Inventory Look-up Tables Database. Region 1 Vegetation Classification, Mapping, Inventory, and Analysis Report #15-07, 2015. http://fsweb.r1.fs.fed.us/forest/inv/classify/index.shtml

R1 FSVeg Reports and Utilities User's Guide, R1 Supplement to National FSVeg/CSE User's Guide Chapters 7 and 8. Region 1 Vegetation Classification, Mapping, Inventory, and Analysis Report #15-6 , V 9.0. http://fsweb.r1.fs.fed.us/forest/inv/fsveg/r1_fsveg_reports_and_utilities.pdf

USDA 2005. Biophysical Classification – Habitat Type Groups and Descriptions of Northern Idaho and Northwestern Montana, Lower Clark Fork and Adjacent Areas. Region One Vegetation Classification Mapping, Inventory, and Analysis Report. #09-08.
http://fsweb.r1.fs.fed.us/forest/inv/classify/hab_type_groups_revisd_final_12_05_r1.pdf