2.0 PLANNING CONTEXT AND REGULATORY CONSIDERATIONS

The Plan Parameters section of the Watershed Planning Act (Chapter 90.82.120 RCW) states that:

> "Watershed planning developed and approved under this chapter shall not contain provisions that: are in conflict with existing state statues, federal laws, or tribal treaty rights; ...change existing local ordinances or existing state rules or permits; ...and shall not create any obligations or restrictions on forest practices additional to or inconsistent with the forest practices act and its implementing rules..."

This chapter describes some of the major governing laws that have been considered during the development of this plan, and also discusses how watershed planning in the Entiat WRIA interfaces with other ongoing federal, state, regional and local planning processes.

2.1 FEDERAL

The U.S. Forest Service manages approximately 83% of the land in the Entiat WRIA. Other federal mangers include the U.S. Bureau of Land Management (BLM) and the U.S. Fish and Wildlife Service (USFWS), which is responsible for the operation and management of the Entiat National Fish Hatchery (ENFH). Actions on USFS, BLM and USFWS lands within the Entiat WRIA result from the execution of various federal laws and regulations. Some of the major federal laws governing agency practices that were considered during the development of this plan are described in this section. Management strategies designed specifically for National Forest System (NFS) lands within the Entiat WRIA are contained in the Synthesis Summary Tables section, beginning on page 2-6.

Although most of this section details conditions and management strategies on NFS and BLM lands, partnership opportunities exist for the application of Federal funds to other ownerships. NFS and BLM funds can be utilized off Federal lands if a proposed project supports the agencies' watershed restoration goals (e.g., correcting a fish passage barrier downstream on private lands that restores aquatic connectivity to stream reaches upstream on NFS lands). USFWS funding is available for culvert/diversion replacement, fish screening, and other activities that involve private lands. Other federal and private sources of restoration funding also exist. The potential to obtain such funding is greatly enhanced if an initiative is part of an approved action plan that has been generated through a watershed-wide assessment and prioritization process. The management recommendations outlined in Chapter 9 are designed to guide the development of natural resource management actions on private lands, while noting and emphasizing coordinated restoration efforts across all ownerships.

2.1.1 National Environmental Policy Act

The National Environmental Policy Act (NEPA) of 1969 mandates that all federal agencies "utilize a systematic, interdisciplinary approach that will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision

making, which may have an impact on man's environment." NEPA integrates with a wide variety of existing environmental legislation, including the: Clean Air Act (CAA), Clean Water Act (CWA), Coastal Zone Management Act (CZMA), National Historic Preservation Act (NHPA), Marine Protection, Research and Sanctuaries Act (MPRSA), Pollution Prevention Act (PPA), and the Endangered Species Act (ESA). The NEPA process requires that a detailed statement on the environmental impact of major federal actions that significantly affect the environment be included in every recommendation or report on proposals for legislation.

The USFS publishes a quarterly report, Schedule of Proposed Actions, which details the status of ongoing environmental analyses and announces proposed projects or actions in order to initiate early involvement by interested and affected parties. The BLM conducts environmental analyses and produces decision documents for all ground disturbing activities on Bureau lands. They also publish an annual report on the status of BLM projects. The USFWS publishes a strategic plan for hatchery operations, as well as annual performance plans, to document their goals and project achievements. Appendix A lists some proposed watershed restoration projects, which may be evaluated through the Federal NEPA process. Anyone wanting to be involved in the analysis of any of these projects should contact the agencies to be placed on their mailing list(s).

2.1.2 Endangered Species Act

The Endangered Species Act (ESA) of 1973, as amended, applies to the management of fish, wildlife and plant species that are in danger of or threatened with extinction. The purposes of the Act are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, and to provide a program for the conservation of such endangered and threatened species (T&E species). All federal departments and agencies must seek to conserve T&E species and utilize their authorities to further the purposes of the ESA. Federal agencies are also required to cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species.

In addition to mandating specific federal management actions, the ESA also applies to the actions of any person subject to the jurisdiction of the United States. The ESA prohibits the "take" of any species listed as threatened or endangered. "Take" under the ESA, is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. Significant consideration is given to the ESA when any type of activity within the Entiat WRIA is proposed or undertaken, as T&E species exist within the management area on lands under both public and private management. Proposed habitat recommendations in this plan have been designed to help protect and restore threatened bull trout and endangered steelhead and spring Chinook habitat on private lands within the Entiat and Mad River watersheds.

2.1.3 Clean Water Act

The Federal Water Pollution Control Act of 1972, as amended in 1977, is commonly known as the Clean Water Act (see Appendix F). The Act established a basic structure to regulate discharge of pollutants into U.S. waters, and gave the U.S. Environmental Protection Agency

(EPA) the authority to implement pollution control programs. The Act made it illegal for any person to discharge any pollutant from a point source into navigable waters without a permit, and recognized the need to address nonpoint source pollution issues. The EPA set federal water quality standards, and delegated authority to the Washington Department of Ecology to monitor whether State surface waters are meeting federal water quality standards (see Appendix G). The state is also required to maintain a list of impaired streams (see Chapter 8, Water Quality). The water quality recommendations in this plan have been designed to help address these concerns within the Entiat WRIA.

2.1.4 Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA) requires the Bureau of Land Management to develop land use plans. In order to meet this requirement the BLM developed the Spokane Resource Management Plan, which includes lands within the Entiat WRIA (approximately 4,424 acres). BLM administered lands in WRIA 46 are designated as Scattered Tracts, and allow most resource activities including recreation, timber harvest, and grazing. These lands have high value as wildlife winter range. BLM lands north of the Entiat River are included within the Entiat Wildlife Recreation Management Area, a wildlife emphasis area that incorporates multiple ownerships and is coordinated through the Washington State Department of Fish and Wildlife (WDFW). Refer to Chapter 3 for more information on public land ownership in the Entiat WRIA.

2.1.5 National Forest Management Act and Northwest Forest Plan

The National Forest Management Act (NFMA) significantly affects the management and decisions of Forest Service land managers. The NFMA directs the Forest Service to develop a Resource Management Plan for each National Forest. The Wenatchee National Forest (WNF) prepared and distributed a programmatic Draft Environmental Impact Statement that analyzed several alternatives for coordinated resource management, and in 1990 released a Final Environmental Impact Statement and a Record of Decision for the preferred Land and Resource Management Plan. The 1990 "Wenatchee Forest Plan" contains management direction for the forest in the form of forest-wide standards and guidelines and management prescriptions for specific management areas (USFS WNF 1990). The various management areas emphasize certain key values and indicate what practices will and/or will not occur within each management area.

The Northwest Forest Plan amended the Wenatchee Forest Plan in April 1994. This amendment modified the Wenatchee Forest Plan management designations and created Late Successional and Riparian Reserves (see Figure 2-1 on the next page). The Northwest Forest Plan also provides numerous standards and guidelines directing management practices on federal lands. Table 2-1 on page 2-5 summarizes the resulting NFS land allocations by acreage within the Entiat WRIA and describes permitted management actions. The BLM's management plan was not affected by the amendment because its administrative lands in the Entiat WRIA are outside of the range of the northern spotted owl.

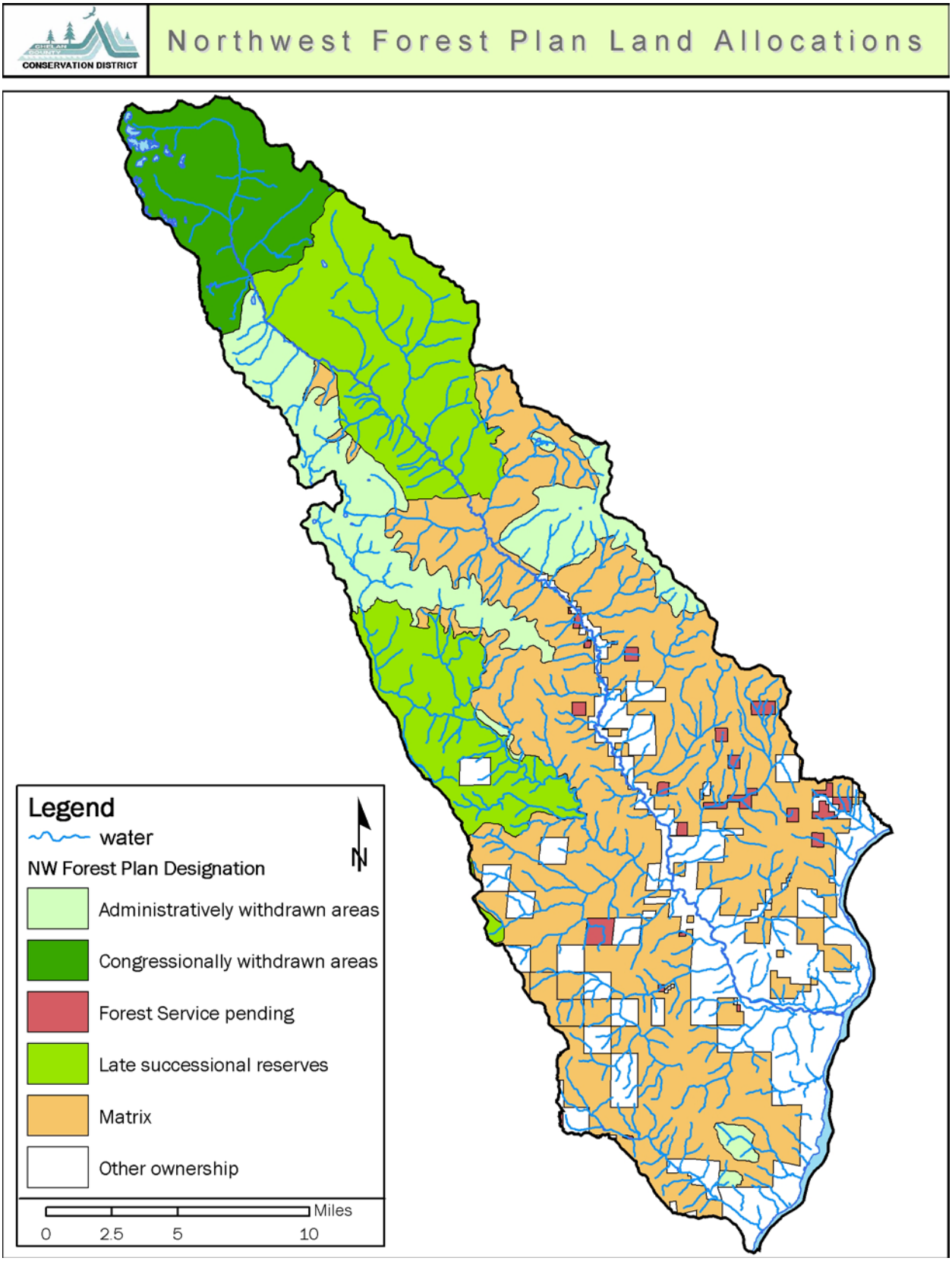

Figure 2-1. USFS Northwest Forest Plan land allocations within WRIA 46.

Table 2-1. USFS land allocations, acreages*, and management emphasis.

LAND ALLOCATION	ACRES+	MANAGEMENT EMPHASIS
Congressionally Withdrawn Areas	25,554.37	Part of the Glacier Peak Wilderness Area. Managed for primitive recreation and research in a primitive setting. No timber harvest.
Late-Successional Reserves	60,139.33	Managed to protect and enhance habitat for late-successional and old-growth related species. No scheduled timber harvest, but allows some tree thinning to enhance desired late successional/old-growth habitat.
Administratively Withdrawn	34,834.61	Wenatchee Forest Plan: Unroaded Dispersed Recreation. No timber harvest.
Riparian Reserves*		Emphasizes protection along all streams, wetlands, ponds and lakes. No scheduled timber harvest but some silvicultural treatments are permitted when they benefit riparian resources.
Matrix*	130,822.96	Lands outside of reserves and managed under prescriptions described in The Wenatchee Forest Plan land allocations. Approximately 65% or 62,958 acres are available for regularly scheduled timber harvest.
Forest Service Pending	3531.31	Lands acquired through exchange or purchase that do not have a Forest Plan allocation assigned to them yet.

***** *Due to varying size of Riparian Reserves, acreage has not officially been calculated for the Entiat RD. The Northwest forest Plan Record of Decision (ROD) reported that Riparian Reserves make up approximately 11% of the federal lands within the range of the northern spotted owl. The following riparian reserve widths are from p.9 of the ROD: Fish-bearing streams - 300 feet slope distance on each side; permanently flowing nonfish-bearing streams - 150 feet slope distance on each side; lakes and natural ponds 300 feet slope distance; seasonally flowing/intermittent streams 100 feet slope distance on each side; and wetlands < 1 acre and unstable/potentially unstable areas - to outer edges of riparian vegetation or extent of unusable areas. The ROD acknowledges these riparian reserve widths are larger than may be necessary in some cases. Site-specific watershed assessments and project analysis can change these default widths.*

+ *Acres reflect USFS allocations within the Entiat WRIA, calculated using WNF Northwest Forest Plan GIS data.*

In addition to creating reserves and prescribing standards and guidelines, the Northwest Forest Plan identified "key watersheds" in Washington, Oregon and Northern California as part of the Aquatic Conservation Strategy. Key watersheds provide habitat critical for the maintenance and recovery of anadromous salmonids and resident fish species. Both the Entiat and the Mad Rivers have been designated as "Tier 1 Key Watersheds", and contribute directly to the conservation of at-risk fish species.

The Northwest Forest Plan requires that watershed assessments be completed before federal land managers proceed with most activities within key watersheds. The first federal watershed assessment for the Entiat subbasin (Version 1.0) was completed in April 1995 as a part of the Tyee Fire Recovery effort. NFS and BLM lands were both addressed in the Assessment. The Watershed Assessment, Entiat Analysis Area, Version 2.0 (USFS WNF 1996) was released to update Version 1.0, expand the analysis area to include adjacent

Columbia River tributaries (e.g., Swakane Canyon), and address rangeland and recreation issues not included in Version 1.0.

A key product of the watershed assessment process was the description of existing resource conditions, identification of desired ecological conditions, and the development of management strategies that would move elements in the watershed toward the desired future condition (refer to Synthesis Summary Tables section, below). As mentioned in Chapter 1, this Plan incorporates and updates Version 2.0 of the 1996 Watershed Assessment and serves as Version 2.5 of the Watershed Assessment for NFS and BLM lands in the Entiat WRIA.

Synthesis Summary Tables

Table 2-2 illustrates the relationship between the dominant issues that framed the scope of both previous iterations of the federal Watershed Assessment, Entiat Analysis Area. Six management strategy tables on the following pages summarize the significant findings of the assessment. Table 2-3 covers items common to all vegetative groups, and Tables 2-4 through 2-8 correspond to each of the five vegetative groups. Tables 2-4 through 2-8 describe existing and desired ecological conditions, and management strategies to move the existing condition towards the desired condition. Desired conditions are focused on ecological conditions and are not intended to make decisions about the occurrence or intensity of management activities (e.g., developed recreation, grazing, timber harvest). Specific decisions regarding management activities are made at the NEPA planning level.

Table 2-2. Assessment issues and related management strategies, Entiat Analysis Area.

Issue	Management Strategies (MS)
Vegetative Structure and Condition	3,8,9,13,15,17,18,28-30,33,34,36,46-50,52-55,58,60,62-64
Wildlife and Fish Populations	1,2,5,6,7,10,12,15,16,18, 23,25,26-37,45,47,49-56, 58,59,62,63
Historic Events/Human Impacts	2-18,21,23,26-31,34,36-42, 46,47,57-59,61,64
Sedimentation	1-7,10-12,17,18,30,34,36,57
Scenic Quality	7,9,11,13-19,21,23,24,30,34,36,38-43,47,49,53,60, 62,63
Watershed Improvement Efforts	1-7,10-12,18,19,27,29,34,36,37,46,47,57,61
Commercial Livestock Grazing	3,6,8,10,25,30,33,44,45,64
Recreation	7,10,11,14,16-24,26,31,42,43,51

More detailed information regarding these results can be found in Chapters 1 through 3 and the supporting appendices of the federal Watershed Assessment; recommended priorities for implementation of proposed management strategies are discussed in Chapter 5 of the Assessment (USFS WNF 1996). Please note that the vegetative groups (e.g., Open Forest) used to organize these tables are delineated based on the potential to develop to the defined group, not the current condition.

Table 2-3. Conditions and management strategies common to all vegetative groups.

Existing Condition	Desired Condition	Management Strategies
Riparian and Wetland Function: In areas where riparian or wetland function is impaired, conditions may include: reduced sediment buffering, decreased organic matter input (fines to large woody debris), increased temperatures (303(d) listing), unstable banks, reduced water storage, reduced riparian vegetation, channel confinement and increased flow velocities. Diminished riparian and hydrologic function translates into decreased habitat structure and diversity.	Improved riparian/wetland hydrologic function to buffer sediment delivery (ground cover), enhance nutrient cycling, provide wildlife security and thermal cover, improve channel stability and flow regulation. Sustained diverse riparian vegetation condition and structure.	**1)** Designate Riparian Reserves using guidelines from WNF Forest Plan, as amended by the NW Forest Plan, until site-specific analysis can refine width needs. **2)** Implement actions that promote maintenance or improvement of riparian area function and channel stability (e.g., road upgrade, relocation or obliteration, beaver re-introduction, revegetation, obstruction removal, large woody debris/boulder placement, water chance reconstruction, etc.). Also follow MSs 34 and 36.
Soil Quality and Hydrologic Function: Soil productivity losses have occurred due to decreases in ground cover, compaction, concentration of runoff and accelerated erosion. The extent and magnitude of this reduction varies widely over the analysis area, depending on the location and cumulative disturbances involved (grazing, high intensity fire, timber harvest, roads, and recreation). **Catchment basins** (zero order drainages) provide important hydrologic functions (collection, storage and release) that may be locally impaired by soil compaction and other disturbances.	Soil-hydrologic processes are properly functioning: infiltration/percolation rates, storage and release of water, aeration characteristics and nutrient cycling are restored. Physical/chemical conditions of the soil profile support overstory and vigorous understory plant communities and associated organic matter content (duff and soil wood) that are within the ecological capability of the site.	**3)** Implement management activities that achieve Forest Plan standards for soil productivity, ground cover and grazing utilization. Also follow MSs 5, 7, and 29. **4)** Implement restoration treatments, which will establish conditions where soils within activity areas will make significant progress toward properly functioning conditions. Investigate and implement ecologically sound techniques for reducing detrimental soil disturbance. Also follow MSs 3, 5, 47, 55, and 61. High priority in deposition zone (LTA E), moderate in transition (LTA C), low in transport zone (LTA A, B).
Tyee Fire-Flood Risk: There is an increased risk of flooding with associated threats to life and property due to the effects of the 1994 Tyee fire.	Vegetative ground cover is restored. Infiltration rates on hydrophobic soils are restored. Concentration of surface runoff is reduced, especially on roadways.	**5)** Implement projects to reduce surface runoff and surface/mass erosion from disturbed sites, especially from roads and moderate-high intensity burned areas (e.g., site revegetation, log terracing, road obliteration, road surfacing, surface water control, activity avoidance, etc.). Also follow MSs 2, 3, 7, 29, 34, and 36.

**Note Management Strategies 6b, p.2-8 and 12b, p.2-10 have been added since version 2.0.*

Existing Condition	Desired Condition	Management Strategies
Critical, Unique & key Species and Habitats: Critical, unique & key habitats for PETS, MIS, S&M and unique endemic species of plants and animals occur in the analysis area. Many of these components are limited and susceptible to natural and management disturbances. The location of many of these species and habitats is unknown. Adequate condition and trend data are lacking to determine status of some of these species.	Critical, unique & key species and habitats locations are identified, sustainable and in sufficient quality and quantity to insure species viability.	**6a)** Identify critical/unique/key species and habitats and their limiting components. Implement management recommendations developed for Survey and Manage (S&M) species where those species occur. Develop species management guides for species and habitats as needed to insure population viability to meet Forest Plan objectives. Avoid creating situations that will contribute to potential hazardous interactions between humans and wildlife. Develop Conservation Strategies and Agreements for sensitive plants as needed. Consider use of protective Forest Plan designations for some of these sites (e.g., Special Interest Areas). Also follow MSs 1, 2, 7, 15, 16, 29, 34 and 36.
Grizzly Bear/Gray Wolf: Grizzly bear and gray wolf are endangered and threatened species, respectively. Habitat occurs in the watershed, but these species are not recovering. Human access and activities limit security needed for these animals to fully utilize their various seasonal habitat components.	Seasonal habitat components are good quality and sufficient quantity for denning, foraging, etc., and remote enough from high human activities to allow the animals the security to use these habitats without adverse interactions.	**6b)** Reduce road densities throughout the watershed. Assess seasonal habitat distribution and needs for these species when developing roads, trails, recreation areas, and other activities. Map habitat components, assess quantity and distribution, establish standards for sufficient habitat within each Bear Management Unit, and monitor for compliance.
Road and Trail System: Road and trail density is high in several subwatersheds. A high percentage of lower slope or riparian roads exists in many of these areas. The maintenance needs of the existing road system exceed annual funding levels. Poor surface water control on roadways alters hillslope hydrology and increases erosion and sedimentation. Riparian roads alter floodplain function. Dense road and trail systems increase human activities, reducing wildlife security, and limiting wildlife use in Fall, Winter and Spring.	The road and trail system is scaled properly to meet access needs and maintenance limitations, while reducing negative impacts to wildlife and other resources (e.g., runoff concentration and accelerated sedimentation from roads and trails is significantly reduced, especially at stream crossings). Hydrologic function is restored. Open road densities are limited in habitats where access is a management concern (e.g., mule deer winter range or near raptor nest sites).	**7)** Continue implementation of restoration projects treating priority road-related problems. Complete and implement an Access and Travel Management (ATM) Plan that will establish season of use, road densities, closure strategies, maintenance requirements, etc. for the system. Develop ATM in concert with all ecosystem uses including recreation. (MS 16). Use trail or road closures as needed to direct recreation use away from key habitat areas and/or areas allocated to specific uses. Identify access routes used for recreation, level of use and potential conflicts with wildlife/plant habitats. Also follow MSs 2 and 5.

Existing Condition	Desired Condition	Management Strategies
Noxious Weeds: Noxious weeds are present. Soil conditions and ground disturbing activities promote further spread. Decline in vegetative conditions is especially prevalent in areas with soil productivity losses (e.g., compaction, and soil disturbance/loss through accelerated erosion of sandy soils in shrub/steppe). Problems are most significant in the open vegetative conditions of the shrub/ steppe, open forest and open subalpine; whereas, roads, trails and short-term openings are a concern in the closed forest and closed subalpine.	Noxious weeds are absent or populations are at very low levels. Healthy stands of native vegetation retard invasion and establishment of noxious weeds and soil productivity losses are minimized.	**8)** Develop an integrated weed management strategy for the area. Reduce the risk of infestation and spread of noxious weeds. Establish desirable, aggressive grasses and shrubs capable of restricting expansion of weeds, using natives where possible (e.g., Mud Creek meadows). Consider direct control activities on populations. Identify highly erodible, invasion-prone areas as unsuitable for livestock grazing in Allotment Management Plans, including the Columbia River Breaks. Also follow MSs 3, 7, 29, 30 and 44.
Vegetation Management: Management practices have altered disturbance processes such as fire, insects and disease, allowing these processes to affect ecosystem conditions at a larger scale than occurred historically.	Fire, insect and disease processes are present and function at the tree, stand and small-scale landscape levels.	**9)** Conduct vegetative management projects designed to retain these processes at appropriate scales. Also follow MSs 28-30, 46-49, 52-55 and 62-64.
Planning Coordination: Coordination between the public, private landowners, land management and regulatory agencies, the Yakama Nation and the Colville Confederated Tribes and local schools on resource management issues has been limited.	Coordination on management issues and actions provides a role for all stakeholders in the watershed.	**10)** Foster coordination with the public, other agencies, landowners, tribes and the Entiat community for aquatic, riparian, fire protection/suppression and recreation issues to accomplish mutual watershed goals. **11)** Expand existing public involvement and information program, focused on a shared understanding of the ecological roles of people, fire, erosion, etc. Continue active support of Columbia Breaks Fire Interpretive Center.
Inventory/Monitoring Coordination: Various agencies and private citizens are collecting inventory and monitoring information on resources and management activities within the analysis area; however, coordination of these efforts is still somewhat limited.	Inventory and monitoring activities conducted in the drainage are well coordinated, eliminating duplication of effort, increasing quality control and improving information sharing.	**12a)** Implement a coordinated monitoring plan targeted at priority issues and post-fire recovery, including an early warning system for storm events.

Existing Condition	Desired Condition	Management Strategies
Project Implementation on Non-Federal Lands: Existing opportunities to enhance the effectiveness of watershed restoration and community development efforts through partnerships with adjacent landowners, governments and other agencies are not being fully realized. As a result, complete watershed restoration packages cannot be assembled, coordinated treatments cannot be implemented and resulting cost efficiencies are not being achieved in some areas.	Federal participation in watershed restoration and community development projects on non-Federal lands is increased, resulting in more rapid and efficient achievement of ecosystem goals for the entire watershed. Federal policies supporting such coordinated actions are maintained (e.g., Rural Community Development Program, Wyden Amendment authorization, USFWS Partners Program).	**12b)** Develop and maintain working partnerships with adjacent landowners, local governments and other resource agencies that incorporate Federal participation in priority projects on non-Federal lands that achieve goals of mutual benefit to all parties (e.g., correcting a fish passage barrier downstream on private lands that restores aquatic connectivity to stream reaches upstream on NFS lands through a watershed restoration agreement).
Landscape Appearance: Some of the landscape is in an altered condition as shown on the scenic condition map.	Landscape appears to be natural.	**13)** Within the Tyee Fire perimeter, maintain representative mix of all 3 burn intensities for short-term scenic purposes. Also follow MS 34. **14)** Revise the Entiat Valley Visual Corridor Plan (1978) in concert with the recreation use plan (MS 16).
Snags and Logs: Within burned areas, large amounts of standing dead trees exist now in all size classes; there will likely be a shortage of snags in the future when these trees fall and before replacement trees can grow.	Snags and logs are present at levels meeting the ecological capacity of the site.	**15)** Manage snags and logs based on site-specific analysis using current policies and guidelines (quantitative standards in WNF Forest Plan and NW Forest Plan in unburned areas; WNF Fire Recovery snag guidelines in Tyee Fire burned area).
Recreation Planning: Conflicts exist between user groups and values. During recent years the District has experienced an increase in recreation use (sightseeing, hiking, snowmobiles, motorcycles, horseback riders, mountain bikers to name a few).	No conflicts between competing user groups.	**16)** Develop a Comprehensive Recreation Use Strategy Plan linked to Access Travel and Management Plan. Discourage recreation developments near critical, unique & key wildlife habitats. Use trail or road closures as needed and other management actions to direct recreation use away from key habitat areas and/or areas allocated to specific uses. Identify access routes used for dispersed recreation, level of use and potential conflicts with wildlife/plant habitats. Foster coordination with the public, other agencies, landowners, and the Entiat Community to accomplish recreation goals and address recreation issues. Follow MSs 7, 10, 11, 14 and 40.

Existing Condition	Desired Condition	Management Strategies
Developed Recreation Uses, Site Impacts: Heavy use of developed campgrounds and popular trailheads has resulted in: unacceptable levels of soil disturbance (compaction, erosion); vegetation loss/removal (trampling, firewood cutting); excess noxious weed establishment; lack of down woody debris (particularly in riparian areas); and bank stability problems at localized concentrated-use points. User-built trails are a problem.	Natural Appearing landscape character and scenic condition. Maintained and/or improved vegetative cover. Noxious weeds are minimized. Minimize adverse impacts on soil productivity, riparian and channel conditions at developed campgrounds and popular trailheads. Minimize transfer of adverse impacts to other areas (riparian areas). Acceptable travel routes are provided through riparian areas and acceptable recreation facilities are provided.	**17)** Vegetation management plan developed that will allow for long-term, sustainable use of the resource (Including noxious weed management). Harden high use areas with material compatible with ROS (Recreation Opportunity Spectrum). Provide structures such as hitch rails to control stock at primary horse entry points. Evaluate sites and develop a management strategy that considers site upgrades, closures/hardening of sites and trails and construction of sanitation facilities in appropriate locations. Limit vehicle access to dispersed sites. Turnpike, bridge, harden, or relocate trails to protect wet areas. Restoration of some areas as needed. Promote and educate public about use of weed-seed-free feed. **18)** Implement a socially acceptable, developed site rehabilitation/maintenance program, to include: a) Public info about need to protect riparian vegetation and banks, b) Provide firewood and actively enforce cutting ban, c) Plant native grass/forb/tree species for ground cover and rooting, d) Provide suitable cover in high-traffic areas (chips), e) rehabilitate damaged banks and f) relocate campsites away from banks wherever feasible. Utilize the Respect the River Program as an implementation tool. Also follow MS 20. **19)** Provide recreation stock facilities at appropriate developed recreation sites. Follow MSs 3, 8, 16, 20, 29 36, and38.
Developed Recreation Sites, Safety Concern: Dead, dying and defective trees pose a safety hazard.	Sites meet established standards for health and safety code.	**20)** Manage vegetation to be compatible with human use and safety. Also follow MSs 2, 3, 34, 36 and38.

Existing Condition	Desired Condition	Management Strategies
Dispersed Recreation Use, Site Impacts: Localized detrimental soil disturbance, particularly compaction, loss of ground cover, erosion and surface water concentration, has occurred at heavily used dispersed sites; especially at alpine sites (meadows) and trail channel crossings. Heavy use of dispersed sites has resulted in unacceptable loss/removal of woody debris and vegetation (trampling, firewood cutting). Dispersed sites have inadequate sanitation facilities.	Natural appearing landscape character and scenic condition. Hydrologic processes are properly functioning; infiltration rate, storage capacity and release of water are restored. Minimize adverse impacts to riparian and channel conditions at dispersed sites. Minimize transfer of adverse impacts to other areas (riparian areas). Acceptable travel routes are provided through riparian areas and acceptable recreation facilities are provided. Sanitation strategies are adequate.	**21)** Implement a socially acceptable dispersed site rehabilitation/maintenance program. Utilize the Respect the River Program as an implementation tool. Also follow MSs 2, 6, 7, 16-18, 34 and 38. **22)** Provide recreation stock facilities within the Wilderness and at appropriate dispersed recreation sites.
Change of Viewshed - Smoke and Dust Impacts on Air quality: Summertime dust from roads and trails, smoke from all types of burning, and "metro" area smog detracts from the viewing and recreation experience.	Natural appearing landscape character and scenic condition. Recognition that some level of smoke from natural and prescribed fire will be present at times in the process of achieving this landscape character. Human-caused levels of dust are reduced in major campgrounds and roadways Smog reduced due to the effectiveness of regional control efforts.	**23)** Design prescribed fire to promote maintenance of natural landscape character within smoke management constraints. Utilize burning techniques that minimize smoke production and maximize dispersal (follow Washington State Smoke Management Plan). On existing facilities (e.g., roads, campgrounds), promote frequent maintenance and use dust abatement techniques where appropriate. Incorporate dust abatement measures into the design of new facilities where appropriate. Reduce number of roads or convert to trails. Also follow MS 7.
Expectation of Quality Recreation Facilities: There are a wide variety of recreation facilities at various levels of condition. In some cases the needed facilities are absent or existing sites require upgrading to meet projected use and accessibility standards.	Attractive, well-maintained and designed recreation facilities appropriate to the ROS class of the area are present.	**24)** Develop a long-term strategy for the improvement and expansion of recreation facilities to accommodate the growing need where other resources can be protected. Component actions would include: a) implementation of the Recreation Facility Accessibility Survey findings, b) update of recreation facilities condition surveys through the INFRAstructure program, c) update of facility improvement priorities (Forest Plan Appendix A), and d) review and validation of current inventory of areas for potential expansion of recreation opportunities. Also follow MSs 11, 16, 18 and 40.

Existing Condition	Desired Condition	Management Strategies
Domestic-Bighorn Sheep Contacts: Swakane bighorn sheep population is not growing as expected. There is a potential for disease in bighorn sheep from exposure to domestic sheep from adjacent allotments.	Desired population levels and areas to be managed for bighorn sheep are clearly defined.	**25)** Develop a comprehensive bighorn sheep management plan in cooperation with WDFW and USFWS. This plan will integrate existing State and Forest plans and will extend beyond the Entiat Analysis Area. Annual operating plans will require that domestic sheep grazing will be kept within allotments.
Native Aquatic Biota: Reduced native sport fish populations and altered distribution by stocking as a result of proximity of trail/road system to streams.	Genetic viability and variability of existing native aquatic biota are not reduced.	**26)** Minimize/avoid streamside trails and camps. Also follow MS 7.
Pre-Attack Facilities: Pre-Attack facilities such as fuel breaks and water chances exist throughout the watershed. Some are in poor condition (due to lack of past maintenance or effects of recent fires) and are causing resource damage.	Pre-Attack facilities are functional and are an important part of limiting effects of catastrophic fires.	**27)** Maintain a mix of Pre-Attack facilities consistent with other resource needs and the Federal/private interface. For example, water chances constructed to maintain channel stability and fish passage.

Table 2-4. Conditions and management strategies for the Shrub/Steppe vegetative group.

Existing Condition	Desired Condition	Management Strategies
Vegetation		
Altered Vegetative Structure and Condition - Fire: Most of area burned in Tyee and Dinkelman fires resulted in loss of much of shrub component and scattered large pines. Condition of the shrub component in these recently burned areas approximates pre-settlement conditions; whereas, unburned areas have a higher percentage of shrubs (lower percentage of grass-forb) than existed prior to pre-settlement.	There is a mix of shrub age classes, grasses and forbs associated with scattered large pines. Native ground cover capable of resisting noxious weed expansion. Plant communities produce structurally diverse, vigorous groundcover that approaches a natural grassland condition.	**28)** Replicate natural fire regimes, on a landscape scale, with low intensity underburns that promote fire resilient understory and fire tolerant overstory (minimize development of ladder fuel structures). **29)** Encourage the development of native shrubs and forbs to provide a mix of vegetative composition and structure.
Altered Vegetative Structure and Condition - Grazing: Altered vegetative community structure due to historic over-grazing with fire exclusion: decline of native perennials--increase of annuals and noxious weeds; decline of native mid-level shrubs, especially in riparian areas. Concentration of livestock in valley bottoms has resulted in loss of vegetation and trampling of streambanks in some areas.	A structurally diverse, vigorous native shrub and grassland community (natives) exists. Vegetative structure and condition in riparian areas supports fully functional riparian-channel system. Naturally appearing vegetative mosaic exists at the landscape scale.	**30)** Manage grazing levels to maintain understory plant vigor and structure in allotments. Also follow MSs 4, 8, 28, 29, 34, 40, 44 and 64.
Wildlife		
Mule Deer Cover and Forage: There are abnormally low levels of mule deer cover and forage due to the extent of recent burns.	Deer populations and the level of mule deer cover and forage are in balance.	Follow MS 29 and work with the WDFW to balance mule deer populations with available cover and forage.
Human Activities in Mule Deer Winter Range: Human activities reduce habitat effectiveness of deer winter range. Concern exists that increasing levels of winter recreation in lower Entiat mule deer winter range may be causing harassment and displacement of wolves and deer from key habitat.	Human activities in winter are confined to corridors and have minimal impact on deer and wolves.	**31)** Direct winter recreation use to corridors through deer winter range during access management planning and implementation. Also follow MSs 7 and 16.
Grouse Populations: Sage grouse and sharp-tailed grouse are extirpated.	Areas to be managed and potential populations of these grouse are defined and managed under a Species Management Guide.	**32)** Inventory habitat and potential for these species. Develop species management plans for sharp-tailed grouse and sage grouse.

Existing Condition	Desired Condition	Management Strategies
Cover for Ground-Nesting Birds: Reduced vegetation height, density, and composition resulting from grazing, fire and exclusion of disturbance reduces nesting cover for ground-nesting birds. Limited quality cover exposes these birds to the elements and greater predation, resulting in lowered reproductive success.	Proper forage utilization maintains sufficient cover for prolific populations of ground-nesting birds.	**33)** Promote development of more diverse structure and distribution of native shrubs and forbs over the entire landscape. Also follow MSs 6, 28 and30.
Riparian Vegetative Structure and Condition: Vegetative structure in riparian areas is poor, with low populations of low to mid-level shrubs. Riparian areas not providing wildlife habitat near their capability i.e., they are lacking the structure provided by deciduous components. Vegetative functions in buffering sediment delivery, providing shade, organic input (fines and large wood) and bank stability are degraded.	Vegetation structure in riparian areas approximates historic conditions and supports natural functions (diverse mix of low and mid-level shrubs, as well as deciduous trees).	**34)** Promote all layers of vegetative structure in riparian areas (grass, forbs, low to mid-level shrubs, trees and unique habitats). Also Follow MS 2.
Unique Habitat-Columbia River Breaks: The varied terrain and rocky sites in close proximity to the Columbia River add to the potential for unique habitats for plants and animals to be found within these areas. There is little current knowledge of these areas on which to draw for analysis of effects of potential management activities.	The areas are surveyed for better understanding of distribution of species and habitats. Information is available for proper management and analysis of potential management activities on these lands, the adjacent watersheds and within the province.	**35)** Complete provincial-level wildlife species guild analysis. Also follow MS 6.
Soil/Water/Fish (also applicable to Open Forest)		
Large Woody Debris: In this zone, large woody debris (both present and potential) is lacking in many streams, especially fish-bearing waters (Ref App page F-62 in Watershed Assessment Entiat Analysis Version 2.0 WNF).	Vegetative structure and condition in riparian areas is restored, providing for adequate recruitment of large woody debris.	**36)** Maintain, plant or encourage large diameter native tree species in riparian reserves. Also follow MS 34.
Erosion/Sedimentation: In this zone, erosion, sediment delivery and sediment storage in channels and on floodplains are all high.	Accelerated sedimentation is reduced from existing condition and not adversely affecting beneficial uses.	Follow MSs 2, 5, 7, 29 and 36.

Existing Condition	Desired Condition	Management Strategies
Riparian Road Density: Road densities are high in riparian areas. These roads intercept sub-surface flows, concentrate runoff, increase sedimentation, confine channel migration and reduce security and other wildlife habitat values.	Riparian habitat values and floodplain function are restored.	Follow MSs 2, 5, 7, 34 and 36.
Stream Channels: Many stream channel segments in this zone are artificially constrained and simplified by roads, development, channelization, event response structures (flood and fire rehabilitation) and other uses.	Stream channels are healthy and functioning within historic limits.	**37)** Evaluate the need to remove or modify existing BAER (define) structures (check dams) following their effective lifespan. In developing rehab plans for future events, consider habitat connectivity and long-term, material transport processes at sites proposed for treatment. Major emphasis on coordinated resource management (MS 10).
Fish Habitat: Rearing and holding habitat, off-channel and in-channel winter rearing habitat, spawning habitat and resident adult habitat in this zone are in fair to poor condition in all stream segments.	Spawning, rearing and holding habitats are at or near their natural capabilities. Habitat connectivity is present, man-made barriers to fish passage are not present.	Follow MS 2. Major emphasis on coordinated resource management (MS 10).
Scenery/ Recreation		
Landscape Appearance: Landscapes are a mix of altered and natural-appearing.	A natural-appearing character theme and condition is present for scenic travel routes, viewsheds and recreation settings.	**38)** Manage foreground and middle ground for scenic purposes. **39)** Rehabilitate altered landscapes as shown on scenic condition map. **40)** Use scenic management system for landscape aesthetics to maintain and enhance scenic resource. **41)** Recent Decision Notices manage foreground of Potato Creek Road #5380, Baldy Mtn. Road #8410, Steliko Ridge Trail and Tyee Road # 5700 at a higher Visual Quality Objective (VQO) than Forest Plan indicates. Future actions will consider the appropriateness of continuing these VQOs given the extent of wildfire disturbance. Also follow MSs 13, 14 and 34.

Existing Condition	Desired Condition	Management Strategies
Change of Viewshed - Road Density: Road density and/or locations present an altered appearing landscape. As a result of the Tyee fire, some roads are more visible because vegetative screening burned.	Landscape that appears more natural, roads blend in and are more subordinate to the characteristic landscape patterns. Some roads may be converted to trails. A Natural Appearing landscape character theme and scenic condition is present for scenic travel routes, viewsheds and recreation settings.	**42)** Evaluate foreground and middleground views from major and secondary travel routes. Reduce middleground views of high-density roads in the following areas as viewed from major and secondary travel routes: Preston/Brennegan Creek, Mills Canyon/Roaring Ridge, Lower Mad River, and Chumstick. Reduce views of roading by establishing vegetative screens. Roads may be converted to trails where appropriate for all ranges of ROS classes. Also follow MSs 7, 38-41.
Change of Viewshed – U.S. Highway 97, 97A (U.S. Hwy 2) and Hwy 971 –Segment of Cascade Loop Tour: Most of the viewshed is Natural Appearing, but some areas are altered through management activities in middleground areas.	A Natural Appearing landscape character theme and scenic condition is present for scenic travel routes, viewsheds and recreational settings.	**43)** Manage middlegrounds for scenic purposes. Maintain/establish native vegetation in altered areas. Also follow MSs 11, 29, 38 and 40.
Range Uses		
Range Allotment Conditions: Prior to the Tyee Fire, most upland areas in existing allotments were in fair to good condition. Valley bottoms were in poor to very poor condition. Livestock concentration in valley bottoms is a concern. Desirable perennials are being replaced by annuals and noxious weeds in shrub/steppe and open forest areas. Many range improvements were damaged or destroyed by Tyee Fire.	Adequate ground cover is maintained to promote infiltration and reduce surface runoff. Vegetative structure and condition in riparian areas supports fully functional riparian-channel system. A diverse and vigorous assortment of well-established perennial grasses is maintained in the uplands. Noxious weed populations are confined. Range improvements are well maintained and do not promote resource damage (e.g., valley bottom concentrations).	**44)** Develop Allotment Management Plans that will: (a) Prioritize range improvement rehabilitation, (b) Identify and resolve grazing concerns (e.g., south slopes, weed prone areas, etc.), (c) Identify transitory range opportunities, (d) evaluate opportunities to realign pasture boundaries in more logical manner or adjust timing and (e) Identify key use areas and develop management strategy for protection, rehab, etc. Inventory range improvement conditions and develop multi-year plan to rehabilitate priority developments. Follow FP Standards for RNAÆs and sensitive species management. Use water developments to avoid negative impacts on vegetation (e.g., riparian areas, seeps and springs, sensitive areas). Also follow MSs 1, 2, 6, 8, 29, 30, 34 and 64.
Wildlife-Domestic Forage Competition: Mule deer, bighorn sheep and domestic livestock compete for existing forage. The degree of competition between them is unknown.	Permitted grazing and wildlife forage needs are in balance with proper use of forage production.	**45)** Analyze forage availability, refer to Forest Plan Standards and allocate forage use between mule deer, bighorn sheep, and domestic livestock appropriately. Season of use and varied grazing systems may be used to regulate forage use. Also follow MS 29.

Table 2-5. Conditions and management strategies for the Open Forest vegetative group.

Existing Condition	Desired Condition	Management Strategies
Vegetation		
Altered Vegetative Structure and Condition - Recent Fires: Early and mid successional stages are predominant due to fires since 1970. Shrub component in understory greatly reduced due to recent fires; much of existing overstory is dead with the exception of occasional green clumps.	A mix of successional stages exists, providing a mosaic of vegetation. Grassland shrub understory with pine overstory 10 to 50% crown closure. Understory consists of 5 to 15% shrubs.	**46)** Manage to achieve vegetative conditions and fuel profiles/distributions that support low to moderate fire intensities and more natural frequency regime. **47)** Maintain sufficient snag, down wood and soil wood levels to meet soil productivity, wildlife and scenic needs. **48)** Utilize varied strategies that reduce the development of high stocking levels including prescribed fire, mechanical fuel treatment and harvest. Also follow MS 28.
Altered Vegetative Structure and Condition - Unburned Areas: Unburned portions of this zone have low levels of standing dead and down, high levels of standing small diameter green trees. Stocking is higher than under historic conditions and ladder fuels are high (shrub and suppressed trees). With these fuel loadings, the potential for moderate-high intensity fires is high.	Stand structures are such that the potential for high and moderate intensity fires is low. Fuel profiles are present that support low to moderate intensity fires as opposed to high intensity, stand replacing fires. Fire frequency closer to natural regime.	**49)** Maintain a wide spacing of park-like ponderosa pine. Thin smaller diameter trees to reduce densities. Maintain denser stands (protected by surrounding low fuel areas) on selected sites to meet other resource management objectives. Also follow MSs 28 and 46.
Altered Vegetative Structure and Condition - Grazing:		See text for MS 30.
Wildlife		
Mule Deer Forage and Cover: There is a shortage of both forage and cover areas for deer.	Clumps of coniferous trees providing cover and open foraging areas are present and well distributed.	**50)** Manage stands of thermal cover on strategically selected sustainable sites. Also follow MSs 28 and 29.
Human Activities in Mule Deer Winter Range:		See text for MS 31.
Unique Habitat-Columbia River Breaks:		See text for MS 35.
Riparian Vegetative Structure and Condition:		See text for MS 34.
Soil/Water/Fish		
See Existing Condition for Shrub/Steppe.	See Desired Condition for Shrub/Steppe.	See Management Strategies for Shrub/ Steppe.
Scenery/Recreation		
Landscape Appearance: Some of the landscape is in an altered condition as shown on the scenic condition map.	Landscape is natural appearing.	Follow MSs 13, 14, 34, 38-41.
Change of Viewshed-Road Density:		See text for MS 42.
Change of Viewshed - U.S. Highway 97, 97A (U.S. Highway 2) and Segment of Cascade Loop Tour:		See text for MS 43.

Existing Condition	Desired Condition	Management Strategies
Large Woody Debris (LWD) and Recreation Facilities Protection: Debris jams in this zone (e.g., Mad River) have impacted recreational facilities (primarily bridges and trails).	Recreational facilities are located or constructed in such a way that they do not interfere with natural channel-forming processes.	**51)** Relocate facilities where appropriate. In other situations (e.g., emergency responses), implement actions that result in retention of LWD material in existing sizes, while protecting recreation facility (e.g., winching and realignment, temporary abandonment, etc.). Also follow MSs 2 and 16.
Range Uses		
Range Allotment Conditions:		See text for MS 44.
Wildlife-Domestic Forage Competition:		See text for MS 45.
Cover for Ground-nesting Birds:		See text for MS 33.

Table 2-6. Conditions and manaement strategies for the Closed Forest vegetative group.

Existing Condition	Desired Condition	Management Strategies
Vegetation		
Successional Stages: Disapportionate amounts of early successional stage exist due to large fires since 1970. Unburned portions of zone are predominantly mid-successional and higher in density than under historic conditions. Unburned, higher elevation portion of zone is providing excellent spotted owl habitat (i.e., late successional stage with multi-layered grand fir understory).	Areas of open grown, park-like ponderosa pine are present with interspersed mosaic of early-mid-late successional stages, as needed to meet resource requirements. For example, a mosaic of successional stages throughout the higher elevation portion of the zone (at roughly 1/3 of each structural stage) should exist for spotted owl habitat.	52) In reforestation, favor ponderosa pine widely spaced in lower elevations of zone and dry sites; favor Douglas-fir over grand fir in higher elevation, mixed conifer, and moist sites. 53) Protect remaining green stands (late successional) and manage entire zone to achieve a mosaic of successional stages, arranged in a natural functioning and appearing mosaic (Further analysis is needed to evaluate ability to create 1/3 mosaic, especially in the short-term, within existing constraints (e.g., LSRs)). 54) Manage stocking levels in green stands to favor larger diameter, wider tree spacing where owl habitat is not a primary consideration (ponderosa pine in drier areas, Douglas-fir in more moist sites). Also follow MSs 15, 46, and 47.
Fuel Loading: This zone contains a high density of smaller-diameter, standing dead trees. Unburned sites are also characterized by relatively high fuel loadings.	Fuel profiles are characteristic of low-moderate fire intensity instead of supporting high intensity, stand replacing fires. Fire frequency closer to natural regime. Defensible space is maintained around structures.	Follow MSs 46 and 47.
Large Diameter Trees: There is a shortage of large diameter trees (> 20 inches dbh) due to past fires or timber harvest in the unburned portions of zone. Those present have low levels of cavities suitable for wildlife.	Large trees are present, many having defect characteristics that support cavity development.	55) Maintain existing and favor growing large diameter trees. Also follow MSs 54 and 58.
Wildlife		
Carnivore Habitat Limitations: Habitat is limited for native species such as fisher, wolverine, marten and lynx.	Native animal species are present Habitat supports viable population levels. Road densities < 1 mile per sq mi.	56) Maintain high density down wood concentrations for native species. Also follow MSs 7and 53 within existing constraints (e.g., LSRs).
Human Activities in Mule Deer Winter Range:		See Text for MS 31.
Soil/Water/Fish		
Existing Debris Slides: Debris slides and channels have formed as a result of fire-flood events.	Old debris channels are undisturbed; surface runoff is not concentrated as a result of human activity. Channels and riparian corridors are in a condition to accommodate natural hillslope functions.	57) Avoid road locations or other management disturbances in and tributary to old debris channels and in areas of high mass wasting hazard.

Existing Condition	Desired Condition	Management Strategies
Large Woody Debris (LWD): Approximately 50% of surveyed stream reaches in this zone do not meet Forest Plan standards for large woody debris.	LWD is present at Forest Plan standards in all stream reaches. Debris jams and step pool profiles approximate historic conditions. LWD recruitment is at the appropriate, sustainable level for the vegetative type and site conditions.	**58)** Avoid removal of trees larger than 20 inches dbh from riparian reserves. (especially on class I to III waters). **59)** Where appropriate, change Forest Plan standards to be in line with natural capability. Also follow MSs 2 and 36.
Primary Pools: Less than 25% of surveyed stream reaches have large pools that meet Forest Plan standards.	Deep pools exist that meet Forest Plan standards with adequate cover and well vegetated banks.	Follow MSs 2, 34, 36, 58 and 59.
Aquatic Habitat Diversity: Riffle habitat dominates most reaches, but diversity is provided by small pools formed by large woody debris.	Habitat complexity provides for all life stages of all native aquatic species.	Follow MSs 2, 34 and 59.
Scenery/Recreation		
Landscape Appearance: The zone consists of a mix of natural appearing and altered landscapes.	Landscapes are natural appearing and consist of a diverse composition of plants and age classes including large (> 20 inch dbh) trees.	**60)** Re-establish and/or maintain western larch where adapted and appropriate. Also follow MSs 13, 14, 38-41, 53 and 55.
Change of Viewshed - Road Density:		See text for MS 42.
Recreation Facilities Protection:		See text for MS 51.
Range Uses		
Range Allotment Conditions:		See text for MS 44.
Wildlife-Domestic Forage Competition:		See text for MS 45.
Cover for Ground-Nesting Birds:		See text for MS 33.

Table 2-7. Conditions and management strategies for Closed Subalpine vegetative group.

Existing Condition	Desired Condition	Management Strategies
Vegetation		
Successional Stage: Vegetation is predominantly mid and late successional stage with mid successional often comprised of mature lodgepole pine overstory. In such cases stands are typically dense with > 1000 stems per acre. High numbers of snags and down woody debris < 20 inches dbh.	Zone is made up of a mosaic of vegetative conditions with most stands in mid-late stage.	Follow MS 53 to favor lynx habitat where appropriate.
Wildlife		
Carnivore Habitat Limitations:		See text for MS 56.
Soil/Water/Fish (Also applies to Open Subalpine)		
Groundwater Interception: Management activities, primarily roads, have intercepted near-surface groundwater, especially in the Cougar and Lake Creek areas (LTAs C and B).	Subsurface flow interception and runoff concentration from existing facilities is reduced. Additional disruptions of near-surface groundwater movement are minimized.	**61)** Existing and planned road and trail locations and drainage structures need to be improved/ planned to account for high levels of near surface groundwater storage and flow in these soils. Also follow MSs 5 and 7.
Stream Channel Confinement: Some stream channel segments are constrained by roads and riparian function (sediment buffering) is impaired.	Floodplains are fully functional and streamflows are well regulated over the entire year. Maximize storage of subsurface flows as near surface ground water.	Follow MSs 2-4, 7, 34 and 61.
Primary Pools: Less than 25% of surveyed stream reaches meet Forest Plan standards for primary pools.	Pools exist within the ecological capability of the site. In this case pool occurrence is partially limited by high gradient reaches. Existing Forest Plan standards are not achievable.	Follow MS 59.
Fish Habitat Condition: Rearing and holding habitat, off-channel winter rearing habitat, in-channel winter rearing habitat and spawning habitat are in fair to good condition.	Substrate fines are acceptable for bull trout spawning and other aquatic organisms (<20% fines of <1.0mm diameter).	Follow MSs 2, 5, 34 and 36.
Scenery/Recreation		
Landscape Appearance: Natural Appearing landscape.	Natural Appearing landscape.	Follow MSs 38, 40 and 41.

Table 2-8. Conditions and management strategies for the Open Subalpine vegetative group.

Existing Condition	Desired Condition	Management Strategies
Vegetation		
Meadow Succession: Some conifer encroachment of meadows exists, forested areas are mostly late successional. Encroachment is escalating in some "significant" meadows that provide special recreation experiences. They are special places for people.	There is a naturally appearing mosaic of meadows and conifer patches.	62) Inventory, analyze and evaluate site-specific conditions and develop integrated meadow plan. Identify conditions that maintained meadows naturally and how to best restore desired openings. Implement restoration of "significant" meadows with low intensity underburns or mechanical/manual treatments to retard or reverse conifer encroachment. Emphasize appropriate fire suppression response while considering maintaining a natural appearing vegetative mosaic. Also follow MS 11.
Whitebark Pine: Whitebark pine is infested with blister rust.	Healthy whitebark pine is an important component of forested landscape, providing food and cover for a variety of birds and mammals.	63) Evaluate appropriate options for preserving WB pine stands through disease resistant stock (genetic resistance to blister rust). Also follow MS 62.
Sheep Grazing Effects: Past sheep grazing has caused vegetative changes including more bare areas and reduced forb component.	Meadows and open areas consist of 4-inch to 12-inch mix of shrubs forbs and grasses. Meadows occupy their historic niche.	64) Complete limit of acceptable change analysis and include assessment of past sheep grazing. Implement restoration work as appropriate.
Wildlife		
Grazing effects: Zone consists of a mixture of meadows, forested clumps and non-vegetated rocky areas. There are localized impacts from past grazing and human use.	Natural characteristics of open subalpine landscape.	Maintain existing condition. Restore sites of localized impacts where feasible. Also follow MSs 29 and 62.
Soil/Water/Fish		
See Existing Conditions for Closed Subalpine.	See Existing Conditions for Closed Subalpine.	See Management Strategies for Closed Subalpine.
Scenery/Recreation		
Landscape Appearance: Natural Appearing landscape.	Natural Appearing landscape.	Follow MS 62 to maintain natural appearing conditions.

2.2 STATE

The development of the Entiat WRIA 46 Management Plan was governed by rules outlined in Chapter 90.82 RCW, described in Chapter 1. Many Washington state laws that regulate actions on private lands within the Entiat WRIA, and that direct state and local agency decision-making about projects, were also considered while developing this document. Some of these pertinent state laws include, but are not limited to:

Salmon Recovery Act of 1998 (Chapter 70.46 RCW)
Shoreline Management Act of 1971 (Chapter 90.58 RCW)
Water Resources Act o f 1971 (Chapter 90.54 RCW)
Growth Management Act of 1990 (Chapter 36.70A RCW)
Forestry Practices Act of 1974 (Chapter 76.09 RCW)
State Environmental Policy Act of 1971 (Chapter 42.21C RCW)

Details about the Salmon Recovery Act (SRA) are provided below because of the close link between the SRA and the Watershed Planning Act. For more information about these and other state laws, you may visit the following link: http://www.leg.wa.gov/rcw/index.cfm

2.2.1 Salmon Recovery Act

The Salmon Recovery Act authorizes a lead entity to coordinate the development of locally-directed Habitat Restoration Project Lists and salmon recovery plans. Chelan County is the lead entity for salmon recovery activities occurring in the county. If restoration activities are already being developed under the Salmon Recovery Act, a planning unit that opts to include the habitat component in its watershed plan is required to rely upon those activities as "the primary non-regulatory habitat component" of their plan. Past Habitat Restoration Project Lists developed by Chelan County have relied on EWPU input and recommendations to identify habitat restoration actions in the Entiat WRIA, as the group has been working to address salmon habitat issues for nearly a decade.

The habitat recommendations section of this plan is a result of the EWPU's ongoing effort to take a proactive role in contributing to salmon recovery efforts. Actions detailed in Chapter 9 were designed to improve salmon habitat, as well as identify management practices to improve overall watershed health. The habitat restoration actions put forth in this plan were developed using the "Critical Pathways Methodology" identified in the Salmon Recovery Act, and are the result of a locally-directed, collaborative effort among federal, tribal, state, local, and other stakeholder interests.

For more information on Salmon Recovery, refer to:
http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=77.85

2.3 REGIONAL/LOCAL

2.3.1 Subbasin Planning

National Oceanographic and Atmospheric Administration (NOAA) Fisheries (formerly the National Marine Fisheries Service - NMFS) released a biological opinion (BiOp) on the operation of the Federal Columbia River Power System (FCRPS). This system is operated by the U.S. Bureau of Reclamation (BOR), the Bonneville Power Administration (BPA), and the U.S. Army Corps of Engineers (ACOE). FCRPS operation impacts to six fish species listed in 1999 as threatened or endangered by NOAA Fisheries. The FCRPS BiOp set out a Reasonable and Prudent Alternative (RPA) for the operation and configuration of hydropower facilities on the Columbia River to mitigate impacts to the survival of listed juvenile and adult salmonids in the Columbia River basin. As part of the 2000 FCRPS BiOp, NOAA Fisheries also advised the aforementioned federal agencies that, in addition to hydropower facility modifications, offsite mitigation for habitat, hatcheries and harvest would be required to avoid jeopardy. It also established performance standards and schedules to monitor the success of mitigation measures.

In order to help meet offsite ESA obligations under the 2000 FCRPS BiOp, the Northwest Power and Conservation Council's Fish and Wildlife Program collaborated with other federal caucus members to develop the Subbasin Planning process. When complete, subbasin plans will identify and prioritize actions needed to recover listed salmonids in tributary habitats within the Columbia River basin, and guide the expenditure of BPA revenues on these offsite mitigation projects. The Ecosystem Diagnosis and Treatment (EDT) methodology is being utilized in the development of subbasin plans in order to compare the ecological effects of proposed actions, and determine what benefit is likely from each restoration alternative (see Chapter 7, Habitat, for a discussion on the use of EDT in the Entiat WRIA).

Information contained in the full Entiat EDT Watershed Analysis (Mobrand Biometrics, Inc. 2003) and the habitat recommendations section of Chapter 9 will contribute significantly to the development of the Entiat Subbasin Plan and its recommendations for habitat restoration projects.

2.3.2 Regional Salmon Recovery Planning

It is anticipated that information contained in this document pertinent to habitat restoration and salmon recovery in the Entiat subbasin will contribute to the regional recovery strategy being developed for the Upper Columbia River ESU. Additionally, the recommendations contained in Chapter 9 should provide a roadmap for implementation of complimentary projects by other groups involved with identification and funding of recovery actions.

2.3.3 Tribal Recovery Planning/Spirit of the Salmon (Wy-Kan-Ush-Mi Wa-Kish-Wit)

The Spirit of the Salmon is an anadromous fish restoration plan for the Columbia River developed by the Columbia River Inter-Tribal Fish Commission (CRITFC), which represents the Yakima Nation and other tribes. One of the plan's long-term objectives is to restore

salmon populations to a level that will support Tribal ceremonial, subsistence, and commercial harvests. The Planning Unit feels that many of the recommended actions contained in Chapter 9 complement Tribal goals, and should help to achieve restoration objectives. For more information on Tribal Recovery, refer to the following link: http://www.critfc.org/text/water_action.html

2.3.4 Chelan County Comprehensive Land Use Planning

Planning units are required to consider city and county planning activities during the development of their watershed plan. The EWPU has given particular attention to local planning being done under the Growth Management Act (GMA). GMA is quite significant in that it mandates cities and counties to plan for land use and development and to designate and protect critical areas including wetlands, aquifer recharge areas, frequently flooded areas, and fish and wildlife habitat conservation areas. GMA also guides the development of comprehensive plans using other goals such as enhancing water quality and water availability, promoting new businesses, and involving citizen participation in the planning process. Actions recommended in this plan were designed in consideration of the goals used to guide planning under GMA, and to provide local input to Chelan County during the update of its Comprehensive Plan, scheduled for completion by December 1, 2006. The EWPU has also agreed to provide input during County revisions of its critical areas ordinances. To access Chelan County Comprehensive Plan documents, refer to: http://www.co.chelan.wa.us/bl/bl4.htm