APPENDIX C

Detailed Management Direction

APPENDIX C
Detailed Management Direction

Table of Contents

APPENDIX C

Detailed Management Direction

Introduction

This appendix presents the detailed management direction applicable to the purpose and need for change and subsequent decisions identified in **Chapter 1**, and the alternatives summarized in **Chapter 2**. Several sections and tables describe the management direction proposed by each alternative. Throughout these sections, references are made to other sections or tables that provide additional resource specific information. It is important to review all the direction together to understand the full implications of the proposed alternatives.

Goals, Objectives, Standards and Guidelines

This section describes the overall management direction for the HCNRA. **Table C-1** displays the overall goals, objectives, standards, and guidelines by alternative for each of the areas needing change identified in **Chapter 1.**

Recreation Management Direction

This section describes the detailed management direction related to recreation. The goals and objectives for recreation settings and experiences are defined in terms of the Recreation Opportunity Spectrum (ROS). **Tables C-2a** through **C-2g** explain in detail the ROS classes for the Hells Canyon Wilderness and nonwilderness portions of the HCNRA, the setting indicators, standards for meeting the setting indicators, and definitions related to road and facility management objectives and maintenance levels. **Tables C-3a** and **C-3b** provide direction related to the setting indicators (access, remoteness, naturalness/visual quality, social encounters, visitor management, visitor impacts and facilities) by Recreation Analysis Area (RAA).

Further guidelines related to human-caused impacts on the naturalness/ visual quality setting indicator are listed in **Table C-4.** Guidelines for managing visitor use in the Hells Canyon Wilderness and nonwilderness settings are listed in **Tables C-5a** and **C-5b**. Development, maintenance and priorities for protecting facilities from fire are listed in **Table C-6.** Information regarding water rights and water developments is provided in **Tables C-7a** and **C-7b.**

Forested Vegetation Management Direction

This section explains the determination of the historic range of variablity for forest structures in the HCNRA. **Tables C-8** through **C-20** displays potential vegetation treatment opportunities by alternative. Site-specific planning including the appropriate NEPA analysis would be required to implement these projections.

Wildland Fire Management Policy

Tables C-21 through C-25 provide broad, strategic level direction for developing fire management plans to address appropriate management responses to fire.

Goals, Objectives, Standards and Guidelines

Each of the alternatives is described in **Table C-1** in terms of goals, objectives, standards and guidelines.

Management Direction Terms
Goals - Goals are concise statements that **describe a desired condition** to be achieved **sometime in the future** (36 CFR 219.3) with respect to resource programs and management activities. All goal statements perpetuate the intent of the *HCNRA Act* and the land use regulations, and form the principal basis from which objectives are developed to shape the implementation of those programs and activities. Examples of broad programs and activities include the provision and/or protection of recreation opportunities, wildlife habitat, heritage resources and transportation systems. **Objectives -** Objectives are focused statements that **describe the incremental progress** expected to take place to meet goals (desired conditions) over the ten-year planning period (36 CFR 219.11 (b)) with respect to estimated quantities of services and accomplishments (*Forest and Rangeland Renewable Resources Planning Act*). Objectives identify likely future proposals in terms of ongoing programs and discrete projects to support the goals for the planning area. Examples of ongoing programs include visitor education, resource inventory, facility maintenance, and use monitoring. Examples of discrete projects include campground development, wildlife introduction, prescribed burning and road decommissioning. **Standards -** Standards are mandatory measures that place **limitations on management activities** to ensure compliance with applicable laws and regulations or to limit the discretion authority in making decision on projects. Standards are limited to those actions that are within the authority and ability of the agency to meet or enforce. They establish procedures, set thresholds, constrain activities, prescribe remedies, and define penalties. Examples of standards include density for road systems, cover for elk herds, buffers for riparian areas, and levels of social encounters for recreation experience. **Guidelines -** Guidelines are **discretionary measures preferable or advisable** that may be incorporated into projects and programs. They provide management options for adapting projects and programs to current physical, biological, social, economic, technical and legal conditions. Examples of guidelines include strategies to manage visitor use using suggested technical publications, recommendations to consider using traditional equipment at cultivated sites, and considering fall burning to protect areas with biological crusts. **Management Direction Specific to Individual Management Areas -** The *Forest Plan*, pages 4-56 to 4-98; the FEIS for the CMP, pages 105-116; the CMP, pages 20-27 and 44 to 52; and the *Wild and Scenic Snake River Recreation Management Plan* (USDA 1999) describe management areas. The descriptions provide specific multiple use direction to help reach management goals and objectives. Each existing management area is set forth as 1) a description which defines specific management area goals, objectives, and resource priorities, and 2) direction. **Monitoring and Evaluation -** The HCNRA monitoring and evaluation program would be refined to reflect changes in management direction. Monitoring ensures that goals and objectives are met; assesses the effectiveness of results; ensures quality, consistency, and cost efficiency of monitoring data and information; and helps maintain a viable *Forest Plan*.

Existing management direction for the HCNRA is presented in **Table C-1** as **Alternative A,** no action. As noted in **Chapter 1, Table 1-1:** Summary of Existing Management Direction for the HCNRA, the existing programmatic management direction has been amended through previous *Forest Plan* amendments. The *Forest Plan* including the existing CMP and subsequent *Forest Plan* amendments or other direction including terms and conditions from the biological opinions (BOs) in accordance with the *ESA* provides existing management direction for the HCNRA. The table below summarizes the existing management direction with an abbreviated reference for the source of the direction such as the *Forest Plan*, amendments including Regional Forester amendments PACFISH and INFISH, including terms and conditions from the BOs. Refer to **Chapter 1, Table 1-1** for the complete list and brief description of each *Forest Plan* amendment. Refer to the analysis file for a copy of the complete document.

The management direction for Alternative A shown in **Table C-1** does not describe all the various *Forest Plan* amendments (including terms and conditions from the BOs) in detail due to the size of reproducing the material in this FEIS. Management direction from the existing CMP and some direction from the *Forest Plan* and others sources is provided under each alternative to help the reader understand existing direction, but does not constitute a new decision. The source of each goal, objective, standard and guideline is noted by alternative using the reference abbreviation to guide the reader through comparison of the alternatives. Each goal, objective, standard or guideline that is noted as "new" is a decision under consideration in this FEIS unless otherwise noted. References are also made to current FS manuals and handbook direction or existing laws to clarify the source of the direction for the reader. Utilize the following table for the reference abbreviations used throughout **Appendix C-1** for existing management direction.

Summary of Existing Management Direction and Reference Abbreviation List		
Date	**Reference**	**Title**
May 1981	N/A	Rescinded record of decision for the Hells Canyon National Recreation Area comprehensive management plan (USDA 1981).
April 1982	CMP	Hells Canyon National Recreation Area comprehensive management plan (USDA 1982, as amended by appeal decisions in 1983 and 1984).
April 1983	CMP	Assistant Secretary Crowell's appeal decision on Hells Canyon National Recreation Area comprehensive management plan for Snake River boating (USDA 1983).
June 1983	CMP	Assistant Secretary Crowell's implementation decision on Hells Canyon National Recreation Area comprehensive management plan for Big Bar airfield (USDA 1983).
December 1983	CMP	HCNRA CMP revised Snake River recreation management to incorporate 1982 and 1983 decisions described previously.
April 1984	CMP	Assistant Secretary Crowell's appeal decision on Hells Canyon National Recreation Area comprehensive management plan for remaining appeals (USDA 1984).
June 1987	CMP	Timber management direction within the HCNRA forage allocation.
December 1988	Veg EIS	Managing competing and unwanted vegetation (USDA 1988).
August 1989	Tepee EIS	Tepee Butte recovery project (USDA 1989).
April 1990	Forest Plan	Wallowa-Whitman National Forest land and resource management plan (USDA 1990).
March 1991	AMP Schedule	Forest plan amendment #1: Allotment management planning schedule (USDA 1991).
March 1992	Veg EIS Am.	Amendment to the 1988 Managing competing and unwanted vegetation (USDA 1992).
April 1992	INWM Plan	Forest plan amendment #4: Integrated noxious weed management plan (USDA 1992).
August 1992	Snake LAC	Forest plan amendment # 5: Limits of acceptable change recreation management plan for Snake River (USDA 1992).
January 1993	Imnaha WSR Plan	Forest plan amendment #6: Imnaha Wild and Scenic River management plan (USDA 1993).
February 1994	Prescribed Fire Plan	Forest plan amendment #9 : Prescribed natural fire in Hells Canyon National Recreation Area (USDA 1994).
May 1994	Eastside Screens	Regional Forester's amendment #1/Forest Plan amendment #14: Interim Management Direction Establishing Riparian, Ecosystem, and Wildlife Standards for Timber Sales on Eastside Forests (USDA 1994).
June 1994	PACFISH LOC	Letter of concurrence on interim standards and guidelines for managing anadromous fish-producing areas in eastern Oregon and Washington, Idaho and portions of California (USDI 1994).
June 1994	Private LURs	Private land use regulations (USDA 1994).
July 1994	Public LURs	Public land use regulations (USDA 1994).
October 1994	Snake River Plan	Forest plan amendment #12: Wild and Scenic Snake River recreation management plan (USDA 1994).
January 1995	PACFISH BO	Biological opinion for implementation of interim strategies for managing anadromous fish-producing areas in eastern Oregon and Washington, Idaho, and portions of California (USDC 1995).
February 1995	PACFISH	Regional Forester's amendment #3: Interim strategies for managing anadromous fish-producing watersheds in eastern Oregon and Washington, Idaho, and portions of California (USDA and USDI 1995).
March 1995	Salmon BO	Biological opinion for salmon on land and resource management plans for the Boise, Challis, Nez Perce, Payette, Salmon, Sawtooth, Umatilla, and Wallowa-Whitman National Forests (USDC 1995).
June 1995	Eastside Screens	Regional Forester's amendment #2: Revised interim standards for timber sales on eastside forests (USDA 1995).
July 1995	INFISH	Regional Forester's amendment #4: Inland native fish strategy (USDA 1995).
August 1995	Sheep Decision	Proposal to terminate domestic sheep grazing on portions of the Hells Canyon National Recreation Area (USDA 1995).
November 1995	Fuelwood Program	Forest fuelwood program (USDA 1995).
February 1996	Overlook II	Hells Canyon Overlook II (USDA 1996).
September 1996	Snake River Plan	Forest plan amendment #20: Wild and Scenic Snake River outfitters (USDA 1996). Wild and Scenic Snake River recreation management plan (USDA 1999)
October 1996	PACFISH BO (extended)	Letter extending the 1995 Biological opinion on interim standards and guidelines for managing anadromous fish-producing areas in Eastern Oregon and Washington, Idaho, and portions of California (USDC 1996).
June 1998	Steelhead BO	Biological opinion for effects of continued implementation of Forest Service land and resource management plans (USDC 1998)
August 1998	Bull trout BO	Biological opinion for the effects to bull trout from the continued implementation of land and resource management plans and resource management plans as amended by PACFISH and INFISH (USDI 1998).
October 2000	Lynx BO	Biological opinion on the effects of the national forest land and resource management plans on Canada lynx in the contiguous United States (USDI 2000)

Consultation on the *Forest Plan* including the existing CMP and *Forest Plan* amendments was previously completed in 1996 for various salmon species, in 1998 for steelhead and bull trout, and in 2000 for Canada lynx. These formal consultations resulted in terms and conditions from the various BOs for the *Forest Plan. A*ll ongoing and proposed projects would continue to be managed in compliance with the terms and conditions from the BOs, and related strategies including the *Canada lynx Conservation Assessment and Strategy* (Ruediger et al 2000), *Recovery Plan for the Pacific Bald Eagle* (USDI 1986), and *Recovery Plan for MacFarlane's Four-O'Clock* (USDI 2000).

The *Forest Plan* fish consultations set the stage for future project-specific consultations. They provide guidance for analyzing site-specific projects within the context of biological assessments (BAs) for the Section 7 watersheds pursuant to the *ESA*. These multi-species BAs encompass all ongoing and proposed activities within the Section 7 watersheds and would continue to be interagency in scope and be re-examined every two years.

The Wallowa-Whitman, Nez Perce and Payette National Forests will continue to coordinate consultations for ongoing and future site-specific activities with the USFWS or NOAA-Fisheries. Consultation is the responsibility of each forest depending on the activities they administer in the HCNRA. Consultation for future site-specific projects from implementation of the new programmatic direction for the HCNRA will be initiated before the project decisions are made. On-the-ground impacts and incidental take occurrences will be assessed in subsequent site-specific consultations and decision-making processes.

Alternatives A, B, E-modified, and W do not propose changes in the management direction related to *Forest Plan* amendments and assumes it would remain in place until replaced through subsequent plan amendments or revisions. This direction may be re-evaluated for change during future *Forest Plan* adjustment processes. FS manuals and handbooks direction may also change in the future and would be included as part of the current direction. In places where Alternatives A, B, E-modified, and W conflict with *Forest Plan* direction (as amended), the most restrictive direction would apply.

Alternatives B, E-modified, and W propose management direction that would supplement the *Forest Plan* direction (as amended) and modify or replace existing CMP direction. These changes are noted as “new” following each goal, objective, standard and guideline. Some statements may reflect the intent and wording of the HCNRA Act, but are described as “new” because they provide direction in the form of a goal, objective, standard or guidline as defined previously. Management areas (MAs) 4, 7, 8, 9, 10, 11, 12, and 16 would be managed pursuant the *Forest Plan* (pages 4-56 through 4-98), the existing CMP, and Alternative C of the FEIS for the CMP, except for changes as noted in this appendix. Other applicable direction in the *Forest Plan*, FS manuals and handbooks, *Public and Private LURs* and in other amendments and related terms and conditions from the BOs will not change except as noted in this appendix.

Alternative N proposes stand alone management direction that would not tier to existing direction except as noted. Alternative N goals, objectives, standards, and guidelines would supercede existing direction in the *Forest Plan* and CMP. These items are all considered “new” and therefore are not noted following each goal, objective, standard or guideline unless otherwise noted. Alternative N proposes a different MA scheme than the other alternatives and is described in **Table C-1**.

Table C-1 sections are abbreviated according to goals (goal), objectives (O), standards (S) and guidelines (G) corresponding to **Chapter 1,** Decision Framework**.** The shading and bold text in the table below indicate the major areas needing change listed in **Chapter 1**. The nonshaded items are subtopics under that section. For example, "Recreation Setting, Experiences, and Opportunities" is the major topic with "Aviation Services" as a subtopic.

The numbering of goals, objective, standards and guidelines under an alternative may be slightly out of order or appear to miss a number. The intent was to retain the original numbering from the RDEIS as much as possible while adding new or modified objectives, standards and guidelines to aid the reader in reviewing the changes.

***Note to the reader**: Alternatives W and N are presented in the following tables as submitted to the FS to eliminate misinterpretation. Specific changes based on discussion with each submitter have been made to clarify direction in some places. Alternative N includes reference to "notes" from the complete alternative located in Appendix J.*

Table C-1: Goals, Objectives, Standards and Guidelines by Alternative

Compatibility				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
There is no corresponding direction in the existing CMP.	There is no corresponding direction under this alternative	The following direction was developed to help define a process for resolving the issue of compatibility as used in Section 7 of the *HCNRA Act*. **Com-O1:** Continue recreation, livestock grazing, timber harvest, and mining as traditional and valid uses of the HCNRA, compatible with sections 7 and 13 of the *HCNRA Act* so long as these activities are managed to meet the goals, objectives, standards, and guidelines of this plan. (New) **Com-S1:** If monitoring, evaluation, and/or scientific information identify potential or actual incompatibilities with the provisions of 36 CFR 292 on Federal lands, or the goals, objectives, and standards of this plan, a validation of the incompatibility would be made. Develop options for the resolution of valid incompatibilities that are programmatic in nature through public participation processes; memorandums of understanding, as needed, with affected county, state, federal, and tribal governments; and the appropriate level of environmental analysis. Resolve site-specific incompatibilities on Federal lands through the appropriate level of environmental analysis, project design, implementation and/or administration. (New) **Com-G1:** When resolving programmatic incompatibilities on Federal lands, ensure involvement of agency personnel, affected special use permit holders, inholders of private lands, interested publics, county and tribal governments, technical specialists from appropriate state, federal, and public agencies and institutions. (New)		**Goal NEA-G1:** The Hells Canyon NRA will thrive as a healthy native ecosystem that is an integral component of a larger native bioregion. Section 7 (1-7) of the *HCNRA Act* will be implemented, with priority given, as mandated, to Section 7(1-6). Human activities will be managed on the basis of the native ecosystem processes and natural ruggedness of this area. Human intervention, habitual uses, and expectations will be subject to compatibility with Section 7(1-6) of the *HCNRA Act*. Human activities will be undertaken with no adverse impact or least adverse impact so as to allow HCNRA native ecosystems to function and recover as naturally as possible. Goals, objectives, and standards and guidelines (G/O/S/Gs) will be based on ecosystem protection, and maximum feasible recovery and health rather than on risk-based management for minimal wildlife and ecosystem values. Goals, objectives, standards and guidelines, and monitoring requirements will be stated in objective, measurable terms so that activities and human users can be held accountable to the goals. All human activities that pose a potential for an adverse impact on HCNRA native ecosystems will be continued only if they are publicly monitored for compatibility with Section 7(1-6) of the *HCNRA Act*, on a stated schedule (Note 1).
		Com-S2: Project planning decision documents would disclose a finding of compatibility with the direction contained in the CMP and the monitoring elements from **Appendix F** to ensure compatibility through project implementation. (New)		

Recreation Settings, Experiences, and Opportunities				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
	The following would replace existing CMP management direction (pages 26, 27, and 31) and supplement Forest Plan management direction (pages 4-31 through 4-32), PACFISH management direction (page C-13), and INFISH management direction (page A-9).			
	Goal: Manage for a range of high quality recreation settings and opportunities, with emphasis on the more primitive settings, in a manner compatible with the primary objectives set forth in Sections 1 and 7(1-7) of the *HCNRA Act*. (New) **Goal:** Manage outdoor recreation to ensure that recreational and ecological values and public enjoyment of the area are enhanced and compatible with the objectives of the *HCNRA Act*. (New)		**Goal:** Manage outdoor recreation to ensure that recreational and ecological values and public enjoyment of the area are enhanced and compatible with the objectives of the *HCNRA Act*. (New)	**Goal:** Because the HCNRA plays a critical role in the Columbia River Basin for freedom from motorized presence, motorized recreation that is present widely throughout the region will be minimized within the HCNRA. The HCNRA will be minimally impacted by human recreation, with humans visiting the HCNRA on its rugged, wild, ecosystem, and wildlife terms. Access to all areas of the HCNRA does not require motors and human access cannot be equated with motorized access. Motorized presence in the HCNRA will be minimal (refer to Recreation note 1). Recreation management will be based first on ecological requirements of the land within the HCNRA, and secondarily on the recreational desires of humans. Recreation will be compatible with the ecosystem, cultural resource, and wilderness values mandated by the *HCNRA Act*, the *Wilderness Act*, and *Wild and Scenic Rivers Act* (*WSR Act).* The HCNRA will be recognized as incapable of providing recreation for unlimited numbers of humans. Recreation use will be managed to provide opportunities for diverse outdoor recreation experiences while protecting natural and ecological features and non-Native American and Native American sites; and while retaining and restoring the rustic character, challenging access, and backcountry atmosphere that have defined and protected the HCNRA prior to its designation. Current recreational activities such as hiking, biking, regulated boating, equestrian activities, hunting, fishing, bird watching, and camping will continue

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				in the HCNRA, but all human activities will be conducted in such a manner as to not defeat the long-term goals of protection and eventual recovery of native ecosystems in the HCNRA. Commercial outfitting and guiding will be managed to protect and restore the ecological integrity of the land and wilderness values. In the event of overcrowding or over- use, priority will be given to public, noncommercial recreational activities.
Rec-O: Provide adequate interpretive facilities explaining unique features of the HCNRA to visitors. (CMP) **Rec:** Interpretive themes will be determined as part of the development plan for each site and will be appropriate to the area. (CMP) **Rec:** Study the desirability and feasibility of developing a public airstrip at Pittsburg Landing. (CMP) ***Note to the reader:* Reference the Forest Plan (pages 4-31 through 4-32), PACFISH (page C-13), and INFISH (page A-9) for additional management direction.**	**Rec-O1:** Provide education and resource interpretation opportunities for visitors to learn about HCNRA resources, protection, and management while maintaining the rustic and primitive character of the HCNRA. (New) **Rec-O2:** Manage developed recreation sites in Wallowa County to achieve the watershed management objectives of the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy.* (Wallowa County 1999) (New) **Rec-O3:** Reconstruct developed recreation sites to meet the *Americans with Disabilities Act* restoration of ecological needs, and to bring facilities up to current standards with the use of low-maintenance materials. (New) **Rec-S1:** Maintain recreation use levels according to individual RAAs. Within each RAA, manage ROS characteristics for access, remoteness, naturalness/ visual quality, facilities, social encounters, visitor impacts, and visitor management**.** Refer to **Tables C-2a through C-2g for ROS, setting indicators, road and facilities management definitions; Tables C-3a** and **C-3b: Recreation Management Direction by Alternative;** and **Table C-4: Criteria for Rating Human-caused Impacts to Landscape Character** in this appendix. Refer to **Appendix D** for a description of current ROS settings. (New) **Rec-S2:** Utilize recreation use strategies to manage increased use and social encounter rates to meet the intended ROS setting in each RAA. Refer to **Tables C-5a** and **C5b: Visitor Management Strategies** in this appendix. (New) **Rec-S3:** Maintain developed recreation sites, administrative facilities and replace facilities to meet road access management objectives and ROS settings by RAA. Refer to **Tables C-3a** and **C-3b: Recreation Management Direction by Alternative** in this appendix for access and facility maintenance and development objectives. (New) **Rec-S4:** Manage facilities by RAA pursuant to **Tables C-3a** and **C-3b Recreation Management Direction by Alternative** and **Table C-6: Management Objectives for Facilities by Alternative** in this appendix. (New)		**Rec-O1:** Provide educational and interpretative opportunities about HCNRA resources, protection, and management. (New) **Rec-S1:** Maintain recreation use levels according to individual RAAs. Refer to **Tables C-3a** and **C-3b: Recreation Management Direction by Alternative** in this appendix for proposed access and facility maintenance and construction. (New) **Rec-G1:** Increase recreation users' awareness of ecological functions and processes, protection of heritage resources, low-impact use practices, and management practices. (New) ***Note to the reader:* It is important to review all of Appendix C as indicated above for additional recreation-related management direction.**	**Rec-O1:** Prevent ecological, biological and aquatic damage to the native ecosystems of the HCNRA by preventing overuse and overcrowding of the HCNRA with humans. **Rec-S1:** Recreation will not be promoted, but allowed to propagate on its own. The HCNRA country's natural obstacles and rugged topography will be allowed to self-regulate recreational activities to the fullest extent possible. **Rec-S2:** All recreational activity priorities and decision-making will be guided by a philosophy of "least adverse impact" to the natural/ecosystem process. **Rec-O2:** Implement a monitoring scheme that will document compatibility of each major type of HCNRA human recreation with HCNRA Section 7(1-6). **Rec-S3:** Within one year of implementation of this CMP, develop a monitoring protocol that will be capable of documenting compatibility and incompatibility of each type of HCNRA human recreation activity with *HCNRA Act* 7(1-6), the *Wilderness Act*, and the *WSR Act*, taking into account recent scientific literature on recreational impacts (refer to Recreation note 3). Indicate the costs of monitoring each type of recreation to investigate compatibility and incompatibility. Include these costs for each alternative considered in decision-making

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td></td><td colspan="2">Rec-G1: Design management activities to maintain desired recreational experience levels and desired conditions for developed and dispersed sites. Refer to Tables C-5a and C-5b: Visitor Management Strategies to be used at various thresholds. Some strategies may be implemented without further analysis while others require analysis through additional NEPA analysis. (New)

Rec-S5: Prohibit para-gliding, hang-gliding, glide planes, and other nonmotorized aerial sports below the canyon rim to maintain existing ROS and recreation settings, except that these activities are acceptable in roaded natural areas where they meet ROS standards. (New)</td><td></td><td rowspan="2">regarding recreational activities in the HCNRA.

Rec-S4: Monitor each type of recreational activity for its potential key ecosystem impacts, in order to prepare an annual report on the major impacts observed of each type of recreational activity on HCNRA goals of ecosystem protection and recovery.

Rec-O3: Eliminate recreation that is incompatible with protection and recovery of HCNRA native ecosystems.

Rec-O4: Articulate the desirability of visiting the HCNRA on its own terms. Recognize that many people have come to reflexively equate recreation with motorized recreation, and that a FS public education effort can effectively encourage people to regain a sense of connection with nature and wildness, see more wildlife, experience sounds and sights unavailable in the motorized world, and creatively overcome perceived constraints on visitation without motorization.

Rec-S6: All use in HCNRA documents of the word “access” in relation to recreation must be preceded by either “non-motorized” or “motorized” as a modifier.

Rec-O5: Minimize presence of aquatic and terrestrial motorized recreation in the HCNRA. Aquatic motorized recreation includes personal motorized watercraft and jet boats. Terrestrial motorized recreation includes, but is not limited to, all-terrain vehicles, off-road vehicles, motorbikes, 4x4s and snowmachines. Motorized recreation is any form of recreational activity which relies on personal recreational vehicles (as mentioned above) to recreate. Most HCNRA recreation involves motorized access (i.e., transportation to the recreational area),</td></tr>
<tr><td></td><td colspan="2">Rec-S6: Review recreational activities introduced by new technology or equipment through appropriate NEPA analysis to determine suitability, compatibility, and appropriate use levels. Equipment or activities determined to be valid may be accepted, permitted, and regulated. (New)

Rec-G2: Increase recreation users’ awareness of ecological functions and processes, protection of heritage resources, low-impact use practices, and management practices. (New)

Rec-G3: Enhance recreation resources and opportunities by entering into partnerships with other governmental and nongovernmental organizations. (New)</td><td></td></tr>
<tr><td></td><td>Rec-S7: In Idaho, persons using pack and saddle stock must carry and use pelletized, or other certified weed-free feed. Only pelletized and certified weed-free feed could be brought into the Wilderness. (State Law)

Rec-S8: All users of pack and saddle stock must comply with the Wallowa County hay ordinance. Comply with Oregon laws regarding pelletized and/or weed-free feed in wildernesses. (County Ordinance)

Rec-O4: Encourage persons using pack and saddle stock in Oregon to carry and use pelletized, or other certified weed-free, feed. (New)</td><td>Rec-S7: All users of pack and saddle stock must carry and use pelletized, or other certified weed-free feed. (New)

<u>Note to the reader</u>: Refer to the noxious weeds section for more direction.</td><td></td></tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				but all motorized access is not for recreation. **Rec-S7:** Motorized recreational vehicle users will be required to obtain and carry a free permit (either HCNRA- or self-issued) so as to increase (a) Forest Service knowledge of the extent of motorized recreational use and (b) facilitate ease of enforcement of recreation policy and regulations. **Rec-S8:** All allowable motorized recreation will occur on open roads only (not off-road, and not on closed roads). **Rec-S9:** Significant recreation user conflicts will default to nonmotorized priorities. Safety can be a factor in resolving conflict among nonmotorized users. **Rec-S11:** Neither recreational developments nor technological improvements within the HCNRA will be justified on the basis of increasing the convenience or speed of motorized travel of visitors.
Upland Outfitter and Guide Services				
	***Note to the reader:* Standards and guidelines for upland outfitter and guide services apply to both Wilderness and nonwilderness settings. Refer to Appendix H for direction on outfitter and guide permit applications.**		**Goal:** Outfitter and guides will actively promote the varied recreational uses of the HCNRA in a manner that promotes a level of use consistent with the ecological capacity of the area. (New)	
Rec: Manage outfitter and guide services to be responsive to public and private needs for use of NFS lands consistent with HCNRA management objectives. (CMP)	**Rec-O5:** Manage upland outfitter and guide services to provide quality recreation experiences consistent with HCNRA objectives and in the public interest. Minimize conflicts between users. (New) **Rec-G4:** Manage outfitter and guide activities as directed by the operating guidelines in **Appendix H**. (New) **Rec-S9:** Authorize, manage, and evaluate special-use permits for outfitter and guide operations in accordance with FSM 2700. (Forest Plan) **Rec-S10:** Limit party size for all users to eight people and 16 stock animals in the Hells Canyon Wilderness and the Wild and Scenic section of the Snake River. (CMP)		**Rec-O2:** Permit availability should maximize economic activity up to levels that allow for the maintenance of ecological integrity. (New) **Rec-S7:** Limit party size for permitted groups to 12 people and 24 stock animals in the Hells Canyon Wilderness and the wild section of the Snake River. (New) In the scenic section of the	**Rec-S5:** Review at least every five years the impacts of outfitter activities within the HCNRA to determine compatibility with native vegetation, wildlife habitat, and aquatic areas. If native vegetation or wildlife habitat are adversely affected, establish restoration goals and/or eliminate the impacting activity. **Rec-S19:** No new special-use permits to outfit and guide for upland users (e.g., pack and saddle, hunting,

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr>
<td></td>
<td colspan="2">Adjust, party size as necessary, based on monitoring and evaluation, to meet standards for water, soil, fish, and social capacity. (New)

<u>Note to the reader</u>: This standard ensures that user groups using Wilderness trails to access the Wild and Scenic sections conform to Wilderness party-size limitations while in the Wilderness, even though their destination may be the Scenic river corridor, and/or their route may move back and forth between the Wilderness and the Wild and Scenic corridor.

Rec-S11: Manage outfitter and guide operations through special-use permit process to insure compliance with permit terms and operation plans. (Forest Plan)

Rec-S12: Manage outfitter and guide operations to insure social and biophysical limits of acceptable change (LAC) standards are not being exceeded. Refer to Tables C-2c and C-2d: Setting Indicators. (New)

Rec-S13: Manage outfitter and guide use to support both Wilderness and nonwilderness management objectives. (New)

Rec-S14: Manage outfitter and guide use in a manner that assures adequate opportunities for public use while providing commercial opportunities commensurate with demonstrated need. (New)</td>
<td>Snake River limit party size to 24 people and 24 stock animals. Party size limitations do not apply to campers accessing the corridor by trail. Party size restrictions for trail users are the same as when they are in the Wilderness. (New)

Rec-S2: Permits should be considered, particularly nontraditional options, if they are not impacting other commercial users. (New)</td>
<td>bicycle touring, bus tours, fishing, photography) will be issued for the first three years following plan implementation. Evaluate the need to reduce permittee numbers or consider new applications for outfitter and guide permits every three years, giving priority to ecological requirements of the land when considering changes in permits.

If conditions warrant alterations prior to the scheduled three-year review, an interim review may be conducted.

Rec-S20: An annual, cooperative site visitation by members of the interested public, permittees, and the WWNF will be undertaken of (a) vegetation and riparian conditions and (b) areas in need of restoration, in at least three distinct areas frequently used by outfitters and guides. All major outfitting and guide areas will be reviewed cooperatively once every five years.</td>
</tr>
<tr>
<td>Rec: Maintain 20 special-use permits for outfitting and guiding upland users at their current level through the planning decade. (CMP, Forest Plan)
<table>
<tr><th>Type</th><th>Wil</th><th>Non-Wil</th></tr>
<tr><td>Cougar/Bear Hunting</td><td>0</td><td>3</td></tr>
<tr><td>Progressive Horse/Mule</td><td>7</td><td>2</td></tr>
<tr><td>Progressive Llama</td><td>2</td><td>0</td></tr>
<tr><td>Mountain Biking</td><td>0</td><td>1</td></tr>
<tr><td>Guided Fishing</td><td>0</td><td>1</td></tr>
<tr><td>Guided Photography</td><td>0</td><td>1</td></tr>
<tr><td>Motorized ground transportation (Roaded only)</td><td>0</td><td>1</td></tr>
<tr><td>Whitewater Rafting</td><td>0</td><td>0</td></tr>
<tr><td>Snowmobiling</td><td>0</td><td>0</td></tr>
<tr><td>Backcountry Skiing</td><td>0</td><td>0</td></tr>
<tr><td>Idaho Side:</td><td>2</td><td>0</td></tr>
<tr><td>Total</td><td>11</td><td>9</td></tr>
</table>
</td>
<td colspan="2">Rec-S15: Manage outfitter and guide permits to reflect demand and resource conditions. Validate levels of use and permit allocation. (New)

Rec-S16: Area Ranger approval is required on a case-by-case basis for use exceeding permitted priority use or currently established party size limitations. The group must demonstrate or be trained in leaving no trace principles before approval to exceed limitation is granted. (New)

Rec-O6: Manage outfitter and guide operations to promote restoration of human-caused impacts to soil, water, and riparian areas. Reduce adverse effects caused by users. (New)

Rec-S17: Manage upland outfitter and guide permits for Wilderness and nonwilderness at the following level for first three years following plan implementation. (New)

Thereafter, evaluate the need to consider new applications for outfitter and guide permits every three years. If conditions change substantially prior to the scheduled three year review, conduct an interim review. Use guidelines in Appendix H for permit applications. (New)</td>
<td>Rec-S8: Manage outfitter and guide permits at the following level: (New)
<table>
<tr><th>Type</th><th>Wil</th><th>Non-Wil</th></tr>
<tr><td>Cougar/Bear Hunting</td><td>0</td><td>3</td></tr>
<tr><td>Progressive Horse/Mule</td><td>7</td><td>2</td></tr>
<tr><td>Progressive Llama</td><td>2</td><td>0</td></tr>
<tr><td>Mountain Biking</td><td>0</td><td>2</td></tr>
<tr><td>Guided Fishing</td><td>0</td><td>2</td></tr>
<tr><td>Guided Photography</td><td>0</td><td>2</td></tr>
<tr><td>Motorized ground transportation (Roaded only)</td><td>0</td><td>2</td></tr>
<tr><td>Whitewater Rafting</td><td>0</td><td>2</td></tr>
<tr><td>Snowmobiling</td><td>0</td><td>2</td></tr>
<tr><td>Backcountry Skiing</td><td>0</td><td>2</td></tr>
<tr><td>Idaho Side:</td><td>2</td><td>0</td></tr>
<tr><td>Total</td><td>11</td><td>19</td></tr>
</table>
</td>
<td>A draft and final report, including observations and recommendations for restoration and permittee practices, will be prepared by the W-WNF within four months of the on site visitation.

Rec-S21: Party size of outfitted or guided groups will be limited to numbers that provide for protection of native vegetation, recovery of threatened vegetation, wildlife habitat, and wilderness values, but with an upper limit of eight people and 16 stock in the Hells Canyon Wilderness and Wild and Scenic River; and a limit of 18 stock in the remainder of the HCNRA.

Rec-S22: Outfitters will be required to obtain training in (a) heritage resource protection; (b) Native American cultural sensitivities regarding Native</td>
</tr>
</table>

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr>
<td>Eleven permits operate in the Wilderness and nine permits operate in nonwilderness areas.

Progressive horse/mule trips, big game, cougar/bear, hunting, fishing in Idaho. (Two permits within the Wilderness.

<u>Note to the reader</u>: Reference the Wild and Scenic Snake River Recreation Management Plan (USDA 1999) for Snake River outfitter and guide permits.</td>
<td colspan="2">
<table>
<tr><th rowspan="2">Type of Special-use Permit</th><th colspan="2">Wilderness</th><th colspan="2">Nonwilderness</th></tr>
<tr><th>Oregon</th><th>Idaho</th><th>Oregon</th><th>Idaho</th></tr>
<tr><td>Cougar/bear hunting (day use only, access from roads only, no horses)</td><td>--</td><td>--</td><td>3</td><td>--</td></tr>
<tr><td>Progressive horse/mule trips, big game, cougar/bear, hunting, fishing</td><td>7</td><td>2</td><td>2</td><td>--</td></tr>
<tr><td>Progressive llama trips</td><td>2</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td>Mountain biking</td><td>--</td><td>--</td><td>1</td><td>--</td></tr>
<tr><td>Guided fishing, whitewater trips on the Imnaha Wild and Scenic River</td><td>--</td><td>--</td><td>2</td><td>--</td></tr>
<tr><td>Guided photography</td><td>--</td><td>--</td><td>1</td><td>--</td></tr>
<tr><td>Motorized ground transportation (roaded only)</td><td>--</td><td>--</td><td>1</td><td>--</td></tr>
<tr><td>Total</td><td>9</td><td>2</td><td>10</td><td>--</td></tr>
</table>
Rec-S18: Manage outfitter and guide pack and saddle stock pasturage to the same forage utilization standards as livestock grazing permits. (New)
</td>
<td>Evaluate the need to consider new applications for outfitter and guide permits every year. If conditions change substantially prior to the scheduled review, an interim review would be conducted.

Total for Oregon (nine in Wilderness and 19 in nonwilderness designations).

Progressive horse/mule trips, big game, cougar/bear, hunting, fishing in Idaho. (Two permits within the Wilderness.

Total for Idaho (two permits in Wilderness, same as Alternative B and Alternative E-modified).

Total: 30 permits</td>
<td>American sites; and (c) identification and ecology of invasive and noxious exotic species so that the outfitters and guides can inform customers/guests of the significance and sensitivity of heritage resources; the fact that Native Americans often regard sites quite differently than non-Native Americans; potential penalties for damaging, defacing, or removing heritage resources; and the importance of retaining native vegetation whenever possible.

Training will consist of either (1) an initial, introductory training (if this has not yet been completed); or (2) an annual update training.

Rec-S23: Outfitters and guides will be provided with simple noxious weed and invasive species identification handbooks and forms on which to report changes in the location or presence of noxious weeds and invasive species along their outfitting and guiding routes. As a condition of their permit, the permittee will complete and submit an HCNRA noxious weed form each month in which outfitting and guiding services are provided.

Rec-S24: Noxious weed identification sheets/reporting forms will be offered to visitors in all visitor centers and trailheads.</td>
</tr>
<tr><td colspan="5">Aviation Services</td></tr>
<tr>
<td>Rec: One special-use permit with 100 service days would be maintained for outfitted and guided aviation use of backcountry airstrips. (CMP, Forest Plan)</td>
<td>Rec-S19: Special use permits for outfitted and guided aviation use of the backcountry airstrips would be permitted as follows:

One permit would allow 50 service days. Applicants for these permits will follow the guidelines outlined in Appendix H for permit application. (New)</td>
<td>Rec-S19: Allow one special use permit with 150 service days for outfitted and guided aviation use of backcountry airstrips. (New)

Rec-O10: Provide opportunities for temporary special use permits to ensure adequate outfitter and guide aviation service from areas not served by the permanent special use permit. (New)

Rec-S18: Allows temporary use permits totaling up to 150 service days From the following locations; (New)</td>
<td>Rec-S9: Special use permits for outfitted and guided aviation use of the backcountry airstrips would be permitted as follows: Two permits would allow 150 service days for a total of 300 service days. (New)</td>
<td>Acc-S10: Allow no regularly scheduled commercial landings at backcountry landing strips. Allow private use to continue. Allow commercial use under existing authorized outfitter and guide permits.</td>
</tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		▪ 50 service days - Lewiston/Clarkston area ▪ 70 service days - Grangeville, Riggins, McCall, Boise area ▪ 30 service days – La Grande, Baker City, Pendleton area **Rec-S19:** Prohibit regularly scheduled landings at backcountry airstrips. (New)		
Wilderness				
Reference Forest Plan (pages 4-63 through 4-67.)	***The following would replace existing CMP management objectives (pages 44 through 47) and supplement Forest Plan management direction (pages 4-63 through 4-67).*** ***Note to the reader: The standards and guidelines in the recreation and heritage sections apply to the entire HCNRA (wilderness and nonwilderness). Standards and guidelines in this section are specific to wilderness management.***		***This alternative would not change current direction.***	***The following would replace existing CMP management objectives (pages 44 through 47) and Region 6 Supplement 81 to FSM 2300, and supplement Forest Plan management direction (pages 4-63 through 4-67):***
	Goal: Preserve the Hells Canyon Wilderness for the use and enjoyment of the American people in such a manner as would leave it unimpaired for future use and enjoyment as a wilderness, and so as to provide for its protection and preservation of its natural conditions and unique character. (New)		**Goal:** Manage the Wilderness within the HCNRA in a manner compatible with current management agreements, plans and laws. (Forest Plan)	**Goal 1:** The area within the HCNRA that is Congressionally designated as Wilderness will be truly wild, with least possible human impact. The Wild and Scenic Snake River corridor and other HCNRA lands and access areas surrounding the Wilderness will serve as a buffer for the Wilderness, with humans' influence reduced so as to avoid intrusion upon the Wilderness, rather than areas within the Wilderness boundaries serving as a buffer for intruding human impacts, such as unnecessary motorized noise. Access points will be present as adequate. Humans who enter the Wilderness area will find a primitive and powerful experience, and will leave civilization behind to meet the Wilderness on its own terms. Risk will be present in this wilderness. Natural processes and ecosystem function will be paramount in the wilderness area. Natural processes will operate freely. Landscapes and views within the Wilderness will be conserved as completely natural, including only.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				native biological objects and Native American sites Wilderness values of remoteness, ruggedness, solitude, and natural ecosystem processes are rapidly disappearing within the Intermountain West and the Columbia River bioregion. The HCNRA will, to the extent feasible, contribute to the retention and recovery of such values throughout the HCNRA. Human visitation to the HCNRA on its own Wilderness terms will be retained and recovered as feasible throughout the entire HCNRA. Human solitude and close contact with natural systems will be provided and restored as feasible throughout the HCNRA, while the Congressionally-designated Wilderness is an area maximally free from human impacts. Risk will be a part of this Wilderness experience. The Wilderness will be virtually unmanaged, and risk to humans from natural forces and causes (including predators, climate/storms, unmanaged trails, and geologic forces) will be treasured.
Wil-O: Preserve the Wilderness character of the area while permitting acceptable human use including recreation, research, resource management, and administrative activities. (CMP) **Wil:** Complete a wilderness management plan for the Hells Canyon Wilderness incorporating the provisions of this plan, additional elements of the Region 6 wilderness management standards. Reference the existing CMP for additional elements. (CMP) **Wil:** Those uses and/or activities applicable to the Hells Canyon Wilderness covered by special provisions section 4(d) of the *Wilderness Act* (aircraft use, prospecting, mining, water resource, structures, and grazing) will be administered for minimum feasible interference with the natural ecological processes and other wilderness values.	**Wil-O1:** Manage historic sites that typify the economic and social history of the region and the American West to conform with the direction and regulations in the *National Historic Preservation Act of 1966*, as amended, and the *Wilderness Act of 1964*. (New) ***Note to the reader*: Refer to the heritage section for additional direction.** **Wil-O2:** Restoration efforts would focus on human-caused impacts utilizing standards to correct erosion, dispersed site expansion, vegetation degradation, and achieve native plant community restoration as well as ensuring fire plays its natural role. Refer to **Table C-2c: Setting Indicators - Hells Canyon Wilderness**. (New)	**Wil-O3:** Minimize the use and existence of structural range improvements and the use of equipment associated with allotment management and activities while maintaining overall permitted livestock AUMs (numbers and seasons). (New)	Same as Alternative A.	**Wil-O1:** Examine the potential to reverse degradation of wilderness values within the HCNRA through key road closures, de-emphasis on motorized recreation, recovery and enhancement of native ecosystems, reintroduction of extirpated wildlife, and encouragement of human slowness rather than speed throughout the HCNRA. **Wil-G1:** Prepare a report on the potential recovery of wilderness values within the HCNRA for the purposes of public discussion, preparation of alternatives within project proposals, and long-term planning options for the HCNRA. **Wil-O2:** Articulate and protect the potential for human solitude within the Wilderness.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
to the extent that such administration does not negate the intent of Congress in making the special provisions or the intent as expressed in the *HCNRA Act* (CMP) **Wil:** Permits for Wilderness use may be required. Where wilderness values are jeopardized by recreation use, such use will be redirected, regulated, or excluded. Generally, party size will be restricted to eight people and 16 head of stock. Exceptions for groups up to a combined total of 30 people and animals may be approved by the FS. (CMP) **Wil:** Persons using pack and saddle stock must carry pelletized feed where native forage is lacking or threatened - such areas will be designated as needed. (CMP) **Wil:** Camping within 200 feet of any lake is prohibited. (CMP) **Wil:** With the exception of Dry Diggins Lookout, Horse Heaven Cabin, and representative historic sites, all administrative facilities will be temporary and seasonal and located away from main trails, popular locations, lake shores, and streams. These exceptions will be analyzed for the necessity of their continued exceptions. Requirements of the *National Historic Preservation Act* will be fully considered. (CMP) **Wil:** All fire rings, tables, toilets, and other facilities developed for the convenience of recreationists will be removed. Alternative means of protecting the Wilderness will be considered before development of any new facility. (CMP) **Wil:** Drift fences may be installed where needed to protect wilderness values and where less obtrusive measures are not available. Regional Forester approval is required. (CMP)	**Wil-G1:** Use **Table C-5a: Visitor Management Strategies,** as appropriate, to maintain desired recreational experience levels and desired conditions for dispersed sites. (New) **Wil-G2:** Consider using information and techniques from *Managing Wilderness Recreation Use: Common Problems and Potential Solutions* (Cole et al 1987) to correct identified problems. (New) **Wil-S1:** Water-yield measurements (including snow surveys) would be by nonmotorized transportation only. (New) **Wil-S2:** Erosion from natural processes would not be rehabilitated through management actions. Human-caused erosion would be minimized and rehabilitative measures taken consistent with wilderness values. (New) **Wil-G3:** Manage Hells Canyon Wilderness under a nondegradation principle to maintain the Wilderness settings. Nondegradation applies to all values of wilderness--biophysical and social. Refer to **Table C-2c: Setting Indicators - Hells Canyon Wilderness.** (New) **Wil-S3:** Minimum tool requirements would be considered in the planning phase of all project level work. (New) **Wil-S4:** Noxious weeds would be managed within the Wilderness using the minimum management tool to insure the most compatible, but effective means of meeting objectives. (INWMP Plan) **Wil-S5:** Restoration activities would use the minimum tools requirement in all decision-making. Restoration would focus on maintaining natural ecosystem function and health using native species and materials. Preference will be given to natural recovery processes unless there is a high probability that natural recovery is unlikely. (New) ***Note to the reader: Refer to the Noxious Weed section of this appendix for additional direction.***	**Wil-G2:** Use current research and proven management techniques to correct identified problems. (New)		**Wil-S1:** Retain the number of current trails and access points as adequate. **Wil-S2:** Provide no developed camping areas. **Wil-S3:** Access will be only by foot or horseback. **Wil-S4:** Articulate to the public the challenge of physical access as part of the meaning of Hells Canyon Wilderness. **Wil-S5:** In the case of overcrowding or overuse of the Wilderness, the HCNRA will give priority to maximizing wilderness values throughout the entire HCNRA (e.g., minimizing motorized use) in preference to restricting numbers of humans accessing the limited area currently designated as Wilderness. Permitting will be used as a last resort to protect the Wilderness from overcrowding. **Wil-O3:** The Wilderness will be free of motorized traffic and mechanized equipment, except in the case of emergencies regarding human life, and on a case-by-case bases, reintroduction of native wildlife species or minimum-tool protection from fire of historically significant structures (Refer to Non-Nat-O1; Wilderness Note 1). **Wil-S6:** The FS will pursue a memorandum of understanding with the Federal Aviation Administration so that aircraft will remain 2000 feet above the canyon rim except in case of medical, fire-fighting, or other emergencies; or, on a case-by-case basis with the FS, for wildlife monitoring, research, or essential administrative purposes. **Wil-S7:** The Wilderness will be free of nonmotorized and motorized vehicles, and motorized watercraft.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Wil: No roads, powerlines, telephone lines, flow-maintenance structures, reservoir, or other improvements would be permitted except as authorized under section 4(d), 5(a), and 5(b) of the *Wilderness Act*. (CMP) **Wil:** Signing would be limited. Informational signs may be provided at trailheads and major trail junctions. The Wilderness boundary would be posted at heavy use areas where trails enter and points where motor vehicle access is possible. (CMP) **Wil:** Substandard trails or sections may be relocated, reconstructed, or closed to meet objectives of this plan and the *Wilderness Act*. (CMP) **Wil:** Occupancy, structures, and the use of motorized and mechanized equipment related to mining and exploration within the provisions of the *HCNRA Act* and access to private land would be permitted to the extent provided by law and regulation. A reasonable effort would be made to minimze the effect on the Wilderness. (CMP). **Wil:** Grazing of cattle and sheep where established prior to classification of the Wilderness (pursuant to section 4(d)(4) of the Wilderness Act) would continue to the extent it is consistent with the maintenance of the Wilderness resource and priorities established above (36 CFR 293.7). (CMP) **Wil:** Native vegetation would be favored with special emphasis on the preservation of threatened, endangered, and sensitive species. (CMP) **Wil:** Native animal species would be maintained, to the extent feasible, with special emphasis on the preservation of threatened or endangered species and their habitats. Wildlife may be reestablished if eliminated by the influence of humans. (CMP)	**Wil-S6:** No roads, powerlines, telephone lines, flow-maintenance structures, reservoir, or other improvements would be permitted except as authorized under section 4(d), 5(a), and 5(b) of the *Wilderness Act*. (CMP) **Wil-S7:** Signing would be limited. Informational signs may be provided at trailheads and major trail junctions. The Wilderness boundary would be posted at heavy use areas where trails enter and points where motor vehicle access is possible. (CMP) **Wil-G4:** Substandard trails or sections may be relocated, reconstructed, or closed to meet objectives of this plan. (CMP) **Wil-S8:** Occupancy, structures, and the use of motorized and mechanized equipment related to mining and exploration within the provisions of the *HCNRA Act* and access to private land would be permitted to the extent provided by law and regulation. A reasonable efforts would be made to minimize the effect on the Wilderness. (CMP) **Wil-S9:** Grazing of cattle and sheep where established prior to classification of the Wilderness (pursuant to section 4(d)(4) of the *Wilderness Act*) would continue to the extent it is consistent with the maintenance of the Wilderness resource and priorities established above (36 CFR 293.7). (CMP) **Wil-S10:** Native vegetation would be favored with special emphasis on the preservation of threatened, endangered, and sensitive species. (CMP) **Wil-G5:** Native animal species would be maintained to the extent feasible, with special emphasis on the preservation of threatened or endangered species and their habitats. Wildlife may be re-established if eliminated by the influence of humans. (CMP)	***Note to the reader:*** ***Refer to the Wildlife section of this appendix for more detailed direction on native animal species.***		**Wil-S8:** Tools and equipment used within the Wilderness will be nonmotorized. **Wil-O4:** Provide a transition in the river corridor and lands surrounding the Wilderness from management and minimal motorization to the unmanaged, nonmotorized, Wilderness, thus providing a buffer around the Wilderness from human activities that would otherwise intrude upon and further limit the Wilderness. **Wil-S9:** There will be no construction of paved parking lots, interpretive centers, or other developed facilities alongside the Wilderness boundary and access points. **Wil-O5:** Paragliding, hang-gliding, glide planes and other aerial sports are considered over-flights below the canyon rim, and are prohibited. **Wil-O6:** Only nonmotorized watercraft will be present in the Wild section of the Snake River, which is adjacent to the Wilderness. **Wil-O7:** Remove structures or features that impinge upon native, natural vistas. **Wil-O8:** Introduced nonnative vegetation represent a threat to the native ecosystem, and will be controlled or eliminated as feasible, using ecosystem recovery, whenever feasible. Least-intensive management will be used to restore native vegetation. **Wil-O9:** Examine potential for use of foot/packing trails to degrade ecosystem function. **Wil-S10:** Mechanical and biological control measures are to be used unless the nonnative plant has been present for only a few years, and the feasibility of elimination through a single application of nonpersistent,

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Wil: Fish stocking, including airdrops, may continue where it is an established practice rotational stocking of lakes to distribute use may be used. Stocking may be curtailed where visitor use capacity is threatened. Species stocking will be determined through coordination with respective state departments of fish and game/wildlife. (CMP) **Wil:** Areas without trails will not be significantly decreased by new trail construction. No new trails or improved access will be constructed in the Sheep Lakes Basin or inside the Loop Trail (Dry Diggins-Horse Heaven-Boise Trail). (CMP) **Wil:** Except as provided for in section 4(d)(4) of the *Wilderness Act*, watersheds will not be altered or managed to provide increased water quantity and/or quality. (CMP) **Wil:** Water yield measurements (including snow surveys) will be by primitive transportation only. (CMP) **Wil:** There will be an ongoing program of water quality monitoring to determine if livestock or human use are resulting in water quality degradation. (CMP) **Wil:** Erosion from natural processes will be allowed to continue. Human-induced erosion will be minimized and rehabilitative measures taken. (CMP) **Wil:** Only wood that is both dead and down may be used for fuelwood. (CMP)				non-bioaccumulative herbicide formulation, the inert ingredients of which are known, has been demonstrated. **Wil-S11:** When use of trails causes ecosystem degradation, consider (a)reduction of use of trails through permitting; and (b) reduction of motorized access to the trailhead. **Wil-G2:** Provide the public with adequate information about no-trace camping. **Wil-S12:** Monitor for impacts of human use within the Wilderness, and prepare an annual report of these impacts, as well as the strategy and commitments to avoid and eliminate such impacts. **Wil-O10:** Allow natural conditions, including tree blowdowns, earth movements, and fire scars to remain except to open and maintain trails in conditions that meet only minimum standards. User maintenance will be emphasized. **Wil-O11:** Human management activities intended to benefit the ecosystem (livestock grazing is considered a use, not beneficial management) will be absent except to reintroduce historic native species, minimize human impacts, control human-caused fire, maintain certain trails to minimum standards, and monitor human impacts on the Wilderness. On a case-by-case basis, treatment of noxious weeds combined with restoration of treated sites to native vegetation may be permitted. **Wil-O12:** Allow fire to resume its role in the ecosystem. **Wil-S13:** Naturally set fires will generally be uncontrolled; suppression efforts will generally not be undertaken before a fire leaves the Wilderness

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				(Refer to Wilderness Note 2). **Wil-S14:** Fires will be controlled if they are shown prior to dispatch of fire fighters to have originated by human cause. **Wil-S15:** Structures within the Wilderness will not be saved from fire unless they have been designated as historically significant and can be saved with minimal adverse impact on the natural ecosystem. **Wil-S16:** Areas will recover from fire naturally, without human intervention.
Scenery				
Reference Forest Plan (pages 4-42 through 4-44) for additional management direction.	***The following would replace existing CMP management objectives (page 30) and supplement Forest Plan management direction (pages 4-42 through 4-44):***			
	Goal: Manage forest resources in a manner that maintains and enhances the positive natural and cultural elements in landscapes that is consistent with the historical landscape character, to provide an overall desired scenic impression. (New) **Goal:** Manage forest resources in a manner that ensures the sustainability of the biophysical environment thus maintaining the landscape character beyond the planning period. (New)			**Goal 1:** The natural scenic resources for which the HCNRA was created will be maintained and protected. Landscapes will be conserved consistent with the primitive nature that formed the basis for HCNRA designation.
Sce-O: Preserve the scenic qualities for which the HCNRA was created. (CMP) **Sce:** Meet or exceed established visual quality objectives with all resource and recreation management activities. Visual quality objectives are shown on a map maintained at the HCNRA administrative headquarters in Enterprise. (CMP)	**Sce-O1:** Manage to meet landscape character goals that conserve and preserve valued landscape character attributes and elements of scenic attractiveness through the planning period. (New) **Sce-O2:** Use scenery management surveys to gather information from constituents to use in site-specific planning processes. (New) **Sce-O3:** Focus scenery restoration efforts on areas of deviation from landscape character, such as areas impacted by humans, or areas of unsustainable ecosystem. (New) **Sce-O4:** Manage vegetation to achieve ecological landscape integrity goals that sustain desired landscape character. (New)	**Sce-O2:** Use constituent information surveys to gather information from constituents to define desired landscape character at various levels of landscape scale. Use survey information to determine social values and consider in conjunction with other resource data to determine appropriate management strategies throughout the planning period. (New) **Sce-O3:** In developing management strategies, through the planning period, integrate social values and bio/physical considerations to maintain or improve a sustainable desired landscape character. Utilize mitigation measures and design techniques to reduce effects (short term and long term, direct and indirect) to landscape aesthetics. (New)	**Sce-O1:** Implement a scenery management system that achieves landscape character goals and scenic integrity for recreational use in balance with the other valid and traditional uses. (New) **Sce-G1:** Emphasize landscape character themes which describe particular attributes, qualities, and traits, including cultural features, of a landscape that give it an image and sense of place. (New) **Sce-S1:** Manage for a preferred landscape character and conserve particular traits that create the image of the area, within the HRV of the area. (New)	**Sce-O1:** Issue a call for public comments and suggestions regarding impairments to natural scenery that seem unnecessary and/or of significant concern. Prepare a public report on the impairments to natural scenery that seem most significant to HCNRA visitors. Discuss potential arrangements by which such impairments could be removed as well as potential legal, economic, or social barriers to removal of such scenery impairments. **Sce-S1:** Do not allow any new constructions, upgrades, or developments which impair the natural scenic resource. **Sce-O2:** Restore landscapes that are unnecessarily construction-impaired by removing such impairments and rehabilitating scars and impacts.

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td rowspan="2"></td><td>Sce-G1: Inventory areas of deviation from landscape character. (New)

Sce-S1: Maintain appropriate levels of alteration when planning and implementing site-specific projects and other management strategies using scenic integrity levels. Refer to Tables C-3a and C-3b: Recreation Management Direction by Alternative for scenic integrity objectives. (New)</td><td>Sce-O4: Inventory areas and site-specific locations where alterations deviate from desired landscape character. Evaluate and prioritize efforts to restore and/or rehabilitate. (New)

Sce-S1: Manage vegetation to achieve ecological integrity levels that sustain desired landscape character and in manner compatible with scenic integrity levels. Refer to Table C-3a and C-3b: Recreation Management Direction by Alternative for scenic integrity objectives. (New)</td><td rowspan="2"></td><td rowspan="2">Sce-G1: Analyze with Idaho Power Company, through the relicensing process, the benefits of relocating the two sets of power transmission lines that cross the HCNRA: The lines from Oxbow Dam that run down the Imnaha River Valley and cross the Snake River into Idaho near China Bar, and the lines from Hells Canyon Dam that run over Saulsberry Saddle and exit the HCNRA near the Pallette Ranch.</td></tr>
<tr><td colspan="2">Sce-G2: Consider the acceptable level of alteration when implementing site-specific projects and management strategies, using the rating aspects of scenic impact to landscape character described in Table C-4: Criteria for Rating Human-caused Impacts to Landscape Character. (New)

Sce-G4: Consider the acceptable level of alteration when implementing management strategies; using the following scenic integrity objectives: (New)

Very high — Less than 1% impact
High — Less than 5% impact
Moderate High — Less than 10% impact
Moderate Low — Less than 15% impact
Low — Less than 20% impact
Unacceptably Low — 20% impact or more</td></tr>
</table>

Access and Facilities				
Roads and Trails				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
	The following would replace existing CMP management direction for roads (pages 4 through 7) and off-road vehicles (page 22), and supplement direction for trails (page 7), Forest Plan management direction (pages 4-34 through 36), PACFISH management direction (pages C-10 through C-12), and INFISH management direction (pages A 7-8).			
	Goal: Manage the transportation system (roads, trails, airstrips, and waterways) to meet the primary objectives for which the HCNRA was established (Sections 1 and 7 of the *HCNRA Act*) and to provide a range of recreation experience opportunities. Favor primitive and semi-primitive experiences over roaded natural and rural experiences. (New)		**Goal:** Manage the transportation system (roads, trails, airstrips, and waterways) to meet the objectives for which the HCNRA was established and to provide a wide range of recreation experience opportunities. (New)	**Goal 1:** (Refer to Access note 1): Opportunities for diverse outdoor recreation experiences will be provided while protecting natural, ecological, and historical Native American and non-Native American sites and resources; and retaining and restoring the rustic character, challenging access, and backcountry atmosphere that have defined and partially protected the HCNRA in the past. The HCNRA will not attempt to duplicate motorized access and facilities that are present in abundance throughout the vast majority of commercial and urban lands in the region. Access and facilities will reflect the natural attributes of the canyon and will allow the natural features to dominate usage. The canyon will not be modified to meet user expec-tations, but rather users will modify their uses to meet existing challenges. Human facilities will be maintained at an absolute minimum (specifically to avoid damage to the ecological systems within which they are contained) and as compatible with primitive and wild values. Specific sections of backcountry areas and associated ecological attributes will be protected and restored by reducing or eliminating certain accommodations for motorized use (Refer to Access note)
Acc-O: Maintain, with some improvements, the present opportunities to see the HCNRA by motor vehicle. Provide one additional access route on	**Acc-O1:** Manage the transportation system to provide safe and efficient access, within ROS direction, for the movement of people and materials involved in the use and protection of the HCNRA. Continue to actively pursue right-of-way acquisition for access to public lands. (New)		**Acc-O1:** Manage the transportation system to provide safe and efficient access for the movement of people and materials	**Acc-O1:** Complete a study that proposes options and the feasibility of alternative means and routes of transportation, including public

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
both the Oregon and Idaho rim to view Hells Canyon via motor vehicle. (CMP) **Acc-O:** Provide adequate access by auto to several popular recreation sites while maintaining the scenic qualities and rustic nature for which the HCNRA was created. (CMP) **Acc-O:** Upgrade existing roads designated for sedan travel to provide for visitor safety and resource protection. (CMP) **Acc-O:** Provide minimal improvements to prevent unacceptable resource damage on roads designated for four-wheel drive travel. (CMP) **Acc-O:** Provide adequate maintenance to protect HCNRA roads and to prevent potential resource deterioration. (CMP) **Acc:** Allow fuelwood cutting by permit off any designated open road within MA 10 and MA 11 for purposes of retrieval. Designate special fuelwood areas. (Forest Plan, Fuelwood Program) **Acc:** Forage and Dispersed Recreation /Timber Management areas (MA 10 and 11) as shown on Alternative C map for the Forest Plan FEIS, will be open to motorized use except for those areas and roads closed through the *Wallowa-Whitman National Forest Access and Travel Management Plan*. (Forest Plan) **Acc:** Construct timber access roads to minimum standards necessary for the transportation of equipment and logs. Close such roads after timber sale activities unless necessary for recreation purposes. (CMP) **Acc:** Provide necessary maintenance and repair to other National Forest System (NFS) roads. Cooperate with local counties in their efforts to upgrade county-maintained road impacted by HCNRA use. (CMP)	**Acc-O2:** Provide and manage facilities that permit access to a variety of HCNRA settings, opportunities, and experiences, regardless of visitor's physical abilities. Manage access appropriate to ROS classification. (New) **Acc-S1:** The use of motorized and mechanical equipment would be prohibited off open designated FS roads, trails, and landing strips, except where authorized by permit. (Public LURs 36 CFR 292.44) Dispersed camping with motorized vehicles would be allowed within a 300-foot corridor on each side on an open road, where authorized. (Forest Plan) Dispersed camping within the corridor would be managed to meet management objectives for resource protection including heritage, soils, riparian, or other identified resource concerns. (New) Continue to allow fuelwood cutting as described under Alternative A. (Forest Plan, Fuelwood Program)	**Acc-S1:** The use of motorized and mechancial equipment would be prohibited off open designated FS roads, trails and backcountry airstrips, except where authorized by permit. (Public LURs 36 CFR 292.44) Dispersed camping with motorized vehicles would be allowed within designated sites or areas only. (New) Dispersed camping within the corridor would be managed to meet management objectives for resource protection including heritage, soils, riparian, or other identified resource concerns. (New) Continue to allow fuelwood cutting as described under Alternative A, only through designated special fuelwood areas. (Fuelwood Program, New) Allow use of motorized all-terrain vehicles equipment 50 inches wide or less in conformance with all state and federal regulations on designated open routes. (New)	in the HCNRA. Provide and manage facilities that permit access to a variety of HCNRA settings, opportunities, and experiences, regardless of visitor's physical abilities. (New) **Acc-O1:** Manage lands within Wallowa County to achieve the watershed management objectives of the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy*. (Wallowa County 1999) **Acc-S1:** Follow the watershed approaches in the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy* for road management. (Wallowa County 1999) **Acc-S1:** Allow construction of short-term roads for timber harvest activities. Upon completion of harvest activities, short-term roads will be immediately stabilized and closed. (New) **Acc-S2:** Unless specifically addressed in **Tables C-3a** and **C-3b: Recreation Management Direction by Alternative,** roads will be managed to maintain existing surfacing, alignment, and prism. (New) **Acc-S3:** Where appropriate, provide mountain biking opportunities during updates of the *HCNRA Trails Management Plan* (USDA 1994)**.** (New) **Acc-G1:** Develop new travel opportunity guides indicating open roads, seasonal closures, and winter travel routes. (New)	transport and nonmotorized means and least vehicle numbers. **Acc-G1:** Prepare public education and visitor materials, including maps, that articulate the potential and desirability of nonmotorized transportation within the HCNRA, e.g., opportunities to view and hunt wildlife; and experience natural sounds, solitude, and relief from urban noise and speed. **Acc-S1:** Establish a baseline of existing launches, roads, trails, trailheads and facilities. An annual inventory will be compared to this baseline to assure that motorization within the HCNRA is consistent with goals. **Acc-S2:** Meaningful indicators of human use will be recorded through year-round electronic monitoring of particular motorized access routes and by meaningful annual sampling of use of nonmotorized access routes. Maximum use of volunteers will be pursued for the nonelectronic sampling. **Acc-G2:** Draft wildlife, vegetation, and social indicators of "overcrowding" of HCNRA area within two years of enactment of the new CMP. Use resulting indicators (completed by third year) for determining when motorized access shall be transformed to nonmotorized access; and when permit systems shall be introduced.

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td rowspan="4">Acc-S3: The use of motorized and mechanical equipment is prohibited along river segments designated "wild" except as provided in the Imnaha River Wild and Scenic River Management Plan (USDA 1993), the Wild and Scenic Snake River Recreation Management Plan (USDA 1999), and where trails 183/188, and 184/362 cross the Rapid River corridor to provide motorized access through the area (USDA 1982, USDA 1988). (Public LURs, CMP, Imnaha WSR Plan, Snake River Plan)</td><td colspan="2">Acc-S2: The use of motorized and mechanical equipment on designated FS roads, trails, and backcountry airstrips would be permissible on wild and scenic river segments classified "scenic" or "recreational" subject to terms and conditions necessary for safe use of such equipment, providing its use is compatible with the WSR Act and meets the provisions of the Imnaha River Wild and Scenic River Management Plan (USDA 1993) and the Wild and Scenic Snake River Recreation Management Plan (USDA 1999). (Public LURs, 36 CFR 292.44, Imnaha WSR Plan, Snake River Plan)

Acc-S3: The use of motorized and mechanical equipment on designated FS roads, trails, and backcountry airstrips would be prohibited on wild and scenic river segments classified "wild" except as provided for by the authorized office upon a determination that such use is necessary for the administration of the river or to protect and enhance the values for which the river was designated as provided in the Imnaha River Wild and Scenic River Management Plan (USDA 1993), the Wild and Scenic Snake River Recreation Management Plan (USDA 1999), and in the CMP for the Rapid River corridor. (Public LURs, Imnaha WSR Plan, Snake River Plan)</td><td rowspan="4"></td><td rowspan="4"></td></tr>
<tr><td>Acc-S4: New road construction would be specifically associated with realignment of existing roads or reconstruction of developed recreation facilities as addressed in Tables C-3a and C-3b: Recreation Management Direction by Alternative. Allow for reconstruction and realignment of existing roads to meet minimum standards necessary to meet objectives of the project. Segments of road that are replaced would be closed and decommissioned. Allow for road construction to access private inholdings as appropriate with applicable laws and regulations. (New)</td><td>Acc-S4: Reconstruction would be specifically associated with realignment or improvement of existing roads or reconstruction of developed recreation facilities as addressed in Tables C-3a and C-3b: Recreation Management Direction by Alternative. Allow for reconstruction and realignment of existing roads to meet minimum standards necessary to meet objectives of the project. Segments of road that are replaced would be closed and decommissioned. Allow for road construction to access private inholdings as appropriate with applicable laws and regulations. (New)</td></tr>
<tr><td colspan="2"><u>Note to the reader</u>: Refer to Tables C-3a and C-3b. Recreation Management Direction by Alternative for proposed construction, reconstruction, and realignment likely future proposals by alternative.

Acc-S5: Within MAs 10 and 11, allow temporary use of existing closed roads for timber harvest activities that are compatible with other resource objectives. Upon completion of harvest activities, immediately reclose the roads. Roads would be closed to public use during this temporary use. (New)</td></tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Acc: Apply surface treatments to gravel surfaces, when necessary, to reduce dust for the safety and convenience of visitors and to reduce maintenance costs. (CMP) **Acc:** Suitable design and location techniques will be used during road construction and reconstruction to reduce adverse effects on scenic quality and impacts to recreation and Wilderness users. When possible, locate parking areas for scenic viewpoints to reduce their visibility and provide foot trails to the viewpoint. Also, when possible locate roads so they are screened by terrain and/or vegetation. To the extent feasible, use road construction materials that blend in with existing soil and rock colors. Keep exposed soils in cuts and fills to a minimum. (CMP) **Acc:** Provide angler and hunter access to the Imnaha River and isolated NFS lands at three to five points along the Imnaha River below the Pallette Ranch in counsel with private landowners. (CMP) **Acc-O:** Provide an adequate, well maintained, trail system to serve HCNRA users. (CMP) **Acc:** Identify those existing trails not needed to serve anticipated HCNRA use and eliminate from the ongoing maintenance program and remove from maps used by visitors. Maintain trails needed to serve anticipated use commensurate with expected use. (CMP) **Acc:** Designate as a national recreation trail the route along the west rim of Hells Canyon beginning at Steamboat Point and ending near Dug Bar on the Snake River. A trail exists on much of this route. Where necessary, construct or reconstruct sections to complete the trail for hiking and horseback travel. Portions of the existing Hat Point Road and the Memaloose to Lord Flat and Somers Point area may be used for part of this	**Acc-O3:** Manage the HCNRA road system in Wallowa County to achieve the watershed management objectives of the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy* (Wallowa County 1999). (New) **Acc-O4:** Focus restoration efforts related to roaded activities on recovery of potential and adverse effects to watershed integrity, soil productivity, and aquatic/riparian and terrestrial species and their habitats. (New) **Acc-S6:** Unless specifically addressed in **Tables C-3a** and **C-3b: Recreation Management Direction by Alternative,** manage roads to maintain existing surfacing, alignment, and prism. (New) **Acc-S7:** Manage trails pursuant to the *HCNRA Trail Management Plan* (USDA 1994). (CMP) Where appropriate, provide mountain biking opportunities during updates of the *HCNRA Trail Management Plan*. (New) **Acc-G1:** Develop new travel opportunity maps indicating open roads, seasonal closures and winter travel routes. (New) **Acc-G2:** Roads not needed for future management can be obliterated to reduce total open road mileage. Obliteration methods may include on-site manipulation or natural processes. (New) **Acc-G3:** Recommend to the Chief of the FS that Forest Road 3955 be removed from the Hells Canyon Scenic Byway System. (New)	**Acc-G1:** Develop new travel opportunity maps indicating open roads, seasonal closures, designated dispersed camping areas and sites or other general areas. (New) **Acc-G2a:** Decommission or convert roads to trails if they are not needed for future management or achievement of recreation goals. On a site-specific basis, determine road restoration or road decommissioning activities to restore watershed integrity, soil productivity, and ecosystem function to the extent practicable. (New) **Acc-G2b:** Where possible, locate and design all system roads, trails and recreation developments to minimize soil damage. Control vehicle access to low standard roads during wet soil conditions to prevent rutting. Use barriers such as rocks, logs, and vegetation to direct visitor use and prevent or reduce damage to soils and riparian/aquatic resources. (New) **Acc-G3:** Maintain Forest Road 3955 and County Road 727 as part of the Hells Canyon Scenic Byway System. (Forest Plan)	**Acc-G2:** Maintain Forest Road 3955 and County Road 727 as part of the Hells Canyon Scenic Byway System. (Forest Plan)	**Acc-S3:** Prepare a protocol for measuring key ecosystem/wildlife species indicators that would show these species and ecosystems are not being negatively impacted from use of specific roads and tourist facilities. This is necessary to issue annual findings of compatibility of motorized access and facilities with *HCNRA Act* Section 7(1-6). **Acc-G3:** An annual survey, supervised by the FS, but undertaken by volunteers, of closed (but not obliterated) roads will document signs of motorized use of closed roads. An action plan for dealing with closure failures will conclude the annual survey documentation. **Acc-O2:** Access itself will not be a priority, but when human impact dictates that protection of resources is necessary, nonmotorized access will act as a default in keeping with the philosophy of meeting Hells Canyon on its own terms. **Acc-S4:** If overcrowding occurs, give priority to dispersion by user choice (i.e., people will naturally move to other areas in the HCNRA or choose not to visit the more crowded areas). **Acc-S5:** If overcrowding continues, examine access for its contribution to the overcrowding. If motorized access is contributing to the overcrowding, transform motorized access to nonmotorized access before establishing a permit system to reduce overcrowding. **Acc-S6:** If user choice and restriction to nonmotorized access are not sufficient to reduce overcrowding, introduce permit systems as necessary to protect the ecosystem and wildlife habitat.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
trail system. (CMP) **Acc:** Construct a new, or reconstruct the existing trail from Hells Canyon Launch Site to Stud Creek suitable for hiking use. (CMP) **Acc:** Reconstruct the existing Snake River Trail from Brush Creek to Granite Creek. (CMP) **Acc-O:** Provide opportunities for off-road vehicle use where appropriate and consistent with HCNRA management objectives. (CMP) **Acc:** Dispersed Recreation/Native Vegetation areas (MA 9) will be closed to motor vehicle use except for designated Forest transportation roads and over-snow vehicle use on snow. The road from Warnock Corral to Lord Flat backcountry airstrip will be open for motorized use but the side roads will closed. The Kirkwood Cow Camp to the vicinity of the Kirkwood Ranch Road will be open to motorized travel except during periods when such use would cause resource damage. (CMP)	**Acc-G4:** Close or relocate trails or trail segments that conflict with site specific resource objectives. (New) **Acc-G5:** Manage roads pursuant to ROS indicators for access in **Tables C-3a** and **C-3b: Recreation Management Direction by Alternative.** (New) **Acc-G6:** Install electronic monitoring devices on travel routes that would provide meaningful annual sampling of motorized access routes to aid in verification of growth and use trends. (New) **Acc-G7:** Where gates or berms are necessary to close a road, provide information explaining the type of usage allowed and the objectives of the road. (FSM 7700) **Acc-S8:** Roads removed from the transportation system and closed would have adequate waterbar and crossdrain spacing to minimize erosion and sediment. (FSM 7730) **Acc-G8:** Manage roads and trails in coordination with the *Integrated Noxious Weed Management Plan*. Where roads or trails are to be maintained, ensure an up to date inventory of all noxious weed sites within the right-of-way and plan for appropriate treatment to prevent the spread of weeds during maintenance activities. Strive to maintain an effective ground cover on all adjacent disturbed surfaces, consistent with safety, to provide a degree of protection against the spread or invasion of noxious weeds. Where roads or trails are to be closed, ensure that pre-planning provides for an inventory of noxious weeds sites and for continued treatment of those sites. During closure activities, ensure that on-site or seeded native plant species are considered with the focus on minimizing bare ground. (INWMP Plan) **Acc-G9:** When a decision is made to eliminate a road, consider decommissioning or restoration of the roadbed to restore the original contours of the land. If this is not feasible, the close the road and take all actions expected to reduce road- and landing-related sediment delivery to aquatic systems. (New) ***Note to the reader: It is important to review all of Appendix C as indicated above for additional management direction.***			**Acc-G4:** Access will be the responsibility of the user, to the extent possible. **Acc-S7:** No new trails will be created other than by closing a road. Trail improvements and maintenance will not occur except where needed to prevent resource damage. **Acc-G5:** Trailheads may be constructed, if necessary, at roads scheduled for closure and use as trails, where they connect with open roads. **Acc-S9:** No new roads will be constructed. Present roads will not be widened. If roads are resurfaced, that resurfacing will not push them to a higher level (e.g., from collector to arterial), but will keep them at the same general class and maintenance level. No previously closed roads will be reopened. **Acc-G6:** Where roads cut into springs (i.e., bring springs to the surface), the feasibility of reintroducing water into the aquifer system will be considered. **Acc-S10:** Parking impacts at trailheads will be concentrated in gravel parking lots. Trailheads will consist only of gravel parking lots, necessary signs, and, if needed, minimal restroom facilities.
Backcountry Airstrips				
Acc-O: Provide opportunities for the landing of aircraft for recreation and ranching purposes where appropriate and within the intent of the *HCNRA Act*. (CMP) **Acc:** Permit aircraft landings in the	**Acc-S9:** Recreation aircraft (fixed wing and rotary) landings would be limited to backcountry airstrips. Self-issued permits would be required at backcountry airstrips. (New)	**Acc-O7:** Provide opportunities for recreation aircraft (fixed wing and rotary) landings for recreation and administrative use within the ROS classification. (New) **Acc-S9:** Require self-issue permits	**Acc-S4:** Recreation aircraft (fixed wing and rotary) landings will be limited to backcountry airstrips. The Memaloose, Lord Flat, Big Bar, Cache Creek, Salmon Bar, Dug Bar, Pittsburg Landing, Temperance Creek and Sluice	**Rec-S10:** Airplanes may use landing strips within the HCNRA for emergency and fire-fighting purposes, and, on a case by case basis, for wildlife monitoring, research, and other administrative purposes.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
HCNRA as identified in the Forest Access and Travel Management Plan with the exception of Hells Canyon Wilderness and the Snake River corridor. All backcountry airstrips would be available for emergencies. (CMP) **Acc:** Landings in Hells Canyon Wilderness would be permitted when necessary to continue traditional ranching activities, as authorized in the grazing permit, which cannot be conducted, practically, without the aid of aircraft. (CMP) **Acc:** The Memaloose and Lord Flat backcountry airstrips are open to private, commercial, and administrative use. (CMP) **Acc:** Within the Wild and Scenic Snake River corridor, Big Bar, Dug Bar, Pittsburg, and Salmon Bar backcountry airstrips are open year-round to private, commercial, and administrative aircraft use. Cache Creek airstrip is open, year-round to private and administrative use only. Temperance Creek is open by special-use permit only. (Snake River Plan) ***Note to the reader*: Reference the Forest Plan (pages 4-34 through 4-36), PACFISH (page C-10 through C-12) and INFISH (pages A-8 through A-9) and the Wild and Scenic Snake River Recreation Management Plan (page 12-13) for additional management direction.**	**Acc-S10:** The Memaloose and Lord Flat backcountry airstrips would be open to private, commercial, and administrative use. (CMP) Within the Wild and Scenic River corridor, Big Bar, Dug Bar, Pittsburg, and Salmon Bar landing strips are open year-round to private, commercial and administrative aircraft use. Cache Creek airstrip is open, year-round to private and administrative use only. Temperance Creek is open by special-use permit only. (Snake River Plan) All backcountry airstrips would be available for emergencies. (CMP) ***Note to the reader*. Refer to the Upland Outfitter and Guide Services section of this appendix for management direction on aviation special use permits at backcountry airstrips.**	for aircraft at all backcountry airstrips. (New) **Acc-S10:** The Memaloose and Lord Flat backcountry airstrips would be open to private, commercial, and administrative use. (CMP) Within the Wild and Scenic River corridor, Big Bar, Dug Bar, Pittsburg Landing, and Salmon Bar backcountry airstrips are open year-round to private, commercial, and administrative aircraft use. Cache Creek airstrip is open, year-round to private and administrative use only. Temperance Creek is open by special use permit only. (Snake River Plan) All backcountry airstrips would be available for emergencies. (CMP)	Creek backcountry airstrips will be open to private, commercial, and administrative use. Any specific site usable for landing/take-off will be allowed in an emergency situation. (New)	**Acc-O5:** Provide motor vehicle access to HCNRA scenic, hunting, and recreational settings on primary use roads while closing and, in some cases, obliterating roads that are detrimental to native ecosystem goals (Refer to Access note 3). Convert closed and obliterated roads to wildlife forage and trails where applicable and where soil and stream protection can be enhanced. **Acc-S11:** Allow no regularly scheduled commercial landings. Allow private use to continue. Allow commercial use under existing authorized outfitter and guide permits. **Acc-S12:** Motor vehicles will remain on open roads with the exception of minimal incursions (less than 20 yards) onto the side of the road for dispersed camping, except in areas posted sensitive for native plant or other ecosystem features. **Acc-G7:** Road maintenance to reduce sedimentation, erosion, and potential road failures will continue on open roads. **Acc-S13:** Reduce overall road density to no more than one mile of road per square mile of relevant habitat (e.g., calculation of road density on the Hells Canyon rim must not include steep slope acreage, as it is level ground that is in short supply in the HCNRA and provides critical habitat for particular wildlife species; refer to Access note 2). Determine which roads are unnecessary and establish a priority schedule for eliminating these roads from the transportation network. **Acc-G8:** Ground-based watershed analysis shall determine how each road in the watershed affects the ability to meet aquatic and terrestrial conservation strategy objectives. Reconstructing, obliterating, and

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				closing and stabilizing of roads other than those listed in Standard Acc-16 and 18 (refer to **Appendix J**) shall be prioritized based on current and potential impact to riparian, aquatic, and terrestrial resources and based on the ecological value of the resources affected. **Acc-G9:** Ground-based watershed analysis shall inventory all existing culverts, bridges and other stream crossings and evaluate the potential risk each stream crossing poses during major storm events. Priorities for upgrading, closure, or obliteration shall be based on the potential impact to riparian and aquatic resources, and based on the ecological value of the resources affected. **Acc-S14:** When a decision is made to eliminate a road, the roadbed shall usually be obliterated and the original contours of the land restored. If this is not feasible, the road shall be closed and all actions that would be expected to reduce road- and landing-related sediment delivery to aquatic systems shall be taken (such as culvert removal, waterbar construction, or seeding with native vegetation). **Acc-S15:** Existing spur tracks or roads that stem from road closures may be open to motor vehicle use up to 1/4 mile from the main road for the purpose of accessing dispersed campsites within 20 yards of the spur road. These tracks or roads will not be improved and will only be open if resource damage does not occur from motorized use. **Acc-S16-19:** For details regarding open roads, Refer to **Tables C-3a** and **C-3b: Recreation Management Direction by Alternative**. **Acc-S20:** Initiate a study through an environmental assessment that

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				will fully analyze the economic, social, and ecological effects of, and make specific recommendations for the Dug Bar Road from Cow Creek Bridge to Dug Bar, and the Hat Point Road and all its spurs from the town of Imnaha. Reasonable access to private lands beyond the closure points will be maintained regardless of what the recommendations of the study are. The study recommendations may include (but not be limited to) leaving all or part of these roads open, seasonal closures, special permits, or public transportation. **Acc-S21:** Roads closed but not obliterated may be used for firefighting when no alternative fire suppression activities will meet the firefighting objectives. Such roads will not be improved during the firefighting effort. In setting firefighting strategies considering use of closed roads, it will not be assumed that roads are necessary to fight wildfires since aerial initial attack is the preferred and most effective method. **Acc-S22:** Where gates or tank traps are necessary to close a road, provide an interpretive sign at such a road closure explaining the type of usage allowed and the goals of the road closure. **Acc-G10:** Roads that are closed but not removed or camouflaged will be posted with interpretive signs to explain the type of usage allowed and the goals of the road obliteration or closure. **Acc-S21:** No roads or motorized trails will be located in or allowed to adversely affect riparian and wetland areas

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				Acc-O6: Classify all open HCNRA roads into maintenance levels. Refer to **Tables C-3a** and **C-3b: Recreation Management Direction by Alternative** for specific classifications. **Acc-S23:** No maintenance level roads created now by users will be recognized in the future.
Over-snow Vehicle Travel				
Acc: Develop and maintain opportunities for winter recreation where needed (Forest Plan). **Acc:** Mark snowmobile and Nordic ski routes to minimize the likelihood of conflict. Manage for motorized over-snow vehicle activities on designated routes and areas. See **Figure 3-14 in Chapter 3** for a map of designated over-snow vehicle play areas and routes in RAAs 36, 40, 41, and 42. (Forest Plan)	**Acc-S10:** Manage over-snow vehicle travel to maintain the existing recreation experience opportunities. Establish existing use levels within four years from implementation of this plan. Manage the use at a maximum 25 percent increase from current overall use levels with the objective of maintaining a similar mix of low and peak use days. (New) **Acc-S11:** Manage designated over-snow vehicle play areas in RAAs 36, 40, 41, and 42, as outlined on the map in **Chapter 3, Figure 3-14**, to provide for the least impact to known wildlife conflict areas. Management direction is as follows: - Manage the play area in RAA 41 along Forest Road 39 to achieve a roaded natural ROS setting. (New) - Manage portions of three play areas in RAAs 41 and 42 to minimize disturbance levels on affected species and allow expansion of use from the high use play area in RAA 41 by determining existing use levels within two years from implementation of this plan. (New) - Manage the use at a maximum 25 percent increase from current overall use levels with the	**Acc-S10:** Manage for motorized over-snow vehicle travel on designated routes and areas. **See Figure 3-13 in Chapter 3** for a map of designated over-snow vehicle play areas and routes in RAAs 36, 40, 41 and 42. (Forest Plan) **Acc-S11:** Designated over-snow vehicle routes must be covered with a minimum of 12 inches of snow and designated over-snow vehicle play areas must be covered with a minimum of 24 inches of snow before allowing over-snow vehicle travel. (New) **Acc-S12:** Manage motorized over-snow vehicles on designated routes and play areas to maintain assigned ROS setting. (New) **Acc-G10:** Consider requests, when compatible with the resource objectives of this plan, for changes in over-snow vehicle routes and play areas. (New) **Acc-G11:** Through monitoring, identify necessary improvements to minimize user conflicts, and provide for acceptable levels of public safety. (New) **Acc-S13:** Manage use commensurate with available access facilities (parking lot, staging area), public safety, and resource objectives. (New)	**Acc-S5:** Manage for motorized over-snow vehicle activities on designated routes and areas in Hat Point, McGraw, Upper Imnaha, and North Pine Creek areas. (New) **Acc-G3:** Accommodate requests, where possible, for changes in over-snow vehicle routes and play areas. (New)	**Rec-O6:** Allow snowmobile use by permit for a specifically limited number of snowmobiles, along specifically designated, easily-monitored roads, only if such use can be shown to not adversely impact winter wildlife and wilderness values and specific air quality standards in the immediate area of use (refer to Recreation note 2). **Rec-S12:** Snowmobiles will be allowed only on specifically designated, easily-monitored, major, paved roads within the HCNRA. **Rec-S13:** Each snowmobile must be equipped with a tread cleat that imprints the permit number of the snowmobile in the snow, in readable size. **Rec-S14:** One year after implementation of this CMP, snowmobile use will be allowed only following HCNRA public analysis of a thorough literature search of evidence that deer, elk, bighorn sheep, marten, wolverine, lynx, bears, subnivean (i.e., under snow) animals, and other sensitive HCNRA wildlife will not be displaced or stressed during winter by the specifically designated routes, numbers, noise, and air pollution levels permitted. **Rec-S15:** Snowmobile use will be allowed only upon demonstration that wilderness values are not

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	objective of maintaining a similar mix of low and peak use days. (New) - For all other areas, over-snow vehicle travel would be limited to roads designated open year-round. Over-snow vehicle travel on closed or seasonally closed roads would be prohibited. Determine existing use levels within two years from implementation of this plan and manage peak use at a maximum 25 percent increase from those peak and low use days. (New) - Over-snow vehicle travel would be prohibited on Forest Road 3965 beyond PO Saddle in RAA 40 and beyond Warnock Corral in RAA 36. (New) **Acc-G6:** Accommodate requests, where possible, for changes in over-snow vehicle routes and play areas. (New)			adversely affected for nonmotorized users of the HCNRA during winter. **Rec-S16:** Snowmobile use will be re-permitted annually on the basis of a public report on the results and implications of (a) completed annual HCNRA monitoring as designated in the snowmobile plan; (b) evidence that monitoring and enforcement of snowmobile regulations have been feasible and effective; and (c) recent scientific literature regarding adverse effects on wildlife, air quality, and wilderness values. Each year, when setting limits on snowmobile use, the burden of evidence will be on why snowmobile use should not be reduced or eliminated from the HCNRA.
Facilities				
	All facilities (i.e., administrative, campground, picnic area, observation point, lookout, rest stop, trailhead, etc.) are allocated to MA 16 and will be managed pursuant to the standards and guidelines in the Forest Plan (pages 4-91 to 4-93).			
	Goal: Manage facilities to meet primary objectives of the HCNRA and in compliance with the facility maintenance plan (objectives include ROS, cultural heritage, Wilderness, etc.). (New)		**Goal:** Manage facilities to meet objectives of the HCNRA and in compliance with the facility maintenance plan. Review facility maintenance plan to insure compliance with new CMP. (New)	
Fac-O: Provide one opportunity on the Idaho and one on the Oregon side of the HCNRA for a modern camping experience. (CMP) **Fac-O:** Provide some new rustic camping opportunities and upgrade the existing rustic campgrounds for resource protection purposes. (CMP) **Fac-O:** Repair and maintain existing rustic campground to meet safe and adequate standards. (CMP)	**Fac-O1:** Develop or modify recreation facilities that alleviate resource problems at existing sites; provide quality experiences commensurate with ROS settings; reduce maintenance costs; provide, to the extent possible, barrier-free areas; and address health and safety issues. (New) **Fac-O2:** Manage recreation facilities so they are in compliance with health and safety regulations and meet regional ROS standards. Protect resources by limiting developments to those necessary to meet standards and ROS. (New) **Fac-O3:** Protect and manage water developments, water rights, and water uses in compliance with applicable laws and directives to meet long-term Resource objectives of the HCNRA. (New)		**Fac-O1:** Develop or modify recreation facilities that alleviate resource problems at existing sites; provide quality experiences commensurate with goals identified for that recreational site; reduce maintenance costs; provide to the extent possible, barrier-free areas; and address health and safety issues. (New)	**Acc-03:** Prevent human overcrowding, to the extent possible, by avoiding expansion of facilities. **Acc-O4:** Maintain facilities at a minimum level.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Fac-S1: Manage facilities pursuant to **Tables C-3a** and **C-3b: Recreation Management Direction by Alternatives,** and **Table C-6: Management Objectives for Facilities by Alternative**. (New) **Fac-G1:** Provide a range of accessibility levels at facilities for a variety of visitors regarding health, physical ability, and age. Generally, retain natural impediments and challenges unless areas are designed specifically to accommodate physically-challenged visitors. Provide access appropriate to the ROS. (New) **Fac-G2:** Use, maintain, and update standardized designs for HCNRA site furniture (e.g., toilets, corrals, bulletin boards, picnic tables) to ensure uniformity in site components and appearance. (New)		**Fac-S1:** Manage facilities pursuant to **Tables C-3a and C-3b: Recreation Management Direction by Alternatives,** and **Table C-6: Management Objectives for Facilities by Alternative**. (New) **Fac-G1:** Provide a range of accessibility levels for a variety of visitors regarding health, physical ability, and age. Natural impediments and challenges will generally not be removed, altered, or modified unless areas are designed specifically to accommodate physically-challenged visitors. (New)	

Forested Vegetation, Grasslands, and Forest Understory				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
This alternative is current direction.	***The following would replace existing CMP management direction for range management (pages 20 and 21) and timber management (pages 23 through 25), and supplement Forest Plan management direction (pages 4-48 through 4-55, including management of noxious weeds (Forest Plan Amendment 4), Regional Forester's Amendment #2, and PACFISH management direction (pages C-10 and C-12 through C-13) and INFISH (pages A-6 through A-7 and A-8 through A-9).*** ***Note to reader: This section provides general vegetation management direction common to both forested and grassland vegetation categories. More specific goals, objectives, standards, and guidelines for these vegetation categories are provided under the subheadings entitled Forested Vegetation and Grasslands and Forest Understory. Goals, objectives, standards, and guidelines apply to all management areas unless specific areas are identified.***			
			Management area guidelines, objectives, and standards would apply so activities can continue until watershed analysis and site- or project-specific analysis under the Forest Plan and the Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy (Wallowa County 1999) have been completed. After watershed analysis and site or project-specific analysis has occurred, the site-specific analysis will be used for management direction.	
	Goal: The HCNRA functions as a healthy ecosystem that is an integral component of a larger biological region. Sustainability of ecological functions and processes is deemed important to maintaining ecosystem health and shall be attained by promoting vegetation within the HRV for seral stages (grassland vegetation) and structural stages (forested vegetation) (Eastside Screens, New)	**Goal:** The HCNRA functions as a healthy ecosystem that is an integral component of a larger biological region. Sustainability of ecological functions and processes is deemed important to maintaining ecosystem health and shall be attained by promoting vegetation within the HRV for structural stages (forested vegetation). Manage grassland communities to attain their potential natural community recognizing their HRV and that the potential for some	**Goal:** Same as Alternative B.	**Goal 1:** Native vegetation will be present in stages of succession and in proportions of such stages as are necessary to sustain long-term native vegetation composition and processes Recovery of native vegetation from human related disturbances will, whenever possible, occur through natural processes of thinning,. replacement, and succession. Native species that have been extirpated from the HCNRA will be restored, whenever possible.

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td></td><td></td><td>communities may be altered. (Eastside Screens, New)

<u>Note to the reader:</u> Refer to Table C-8 for a description of the HRV.</td><td></td><td>Nonnative plant species currently in the HCNRA will be present in the HCNRA only at levels that do not interfere with native plant protection and restoration. Nonnative plant species will not be introduced into the HCNRA. Cultivated fields will be converted, where feasible, to native bunchgrass ecosystem species suitable for use as seed sources for native bunchgrass restoration elsewhere in the HCNRA region.</td></tr>
<tr><td>Veg-O: Perpetuate healthy stands of diverse tree species, sizes, and age classes. (CMP)

Veg-O: Emphasize stand condition, scenery, wildlife habitat, and recreation needs over optimum wood fiber productions. (CMP)

MA 9: Do not conduct timber management activities or the gathering of fuelwood in areas designated Dispersed Recreation/ Native Vegetation (MA 9) except that dead and down wood for recreational camp fires, administrative and permitted uses may be used. (CMP)</td><td colspan="2">Veg-O1: Provide for restoration of ecosystem function, where determined to be needed, in a manner compatible with the primary objectives of the HCNRA Act, congressionally designated areas, and established Forest Plan MAs. (Forest Plan, CMP)

Veg-O2: Manage the vegetation in Wallowa County to achieve the watershed management objective of the Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy (Wallowa County 1999). (New)

<u>Note to the reader</u>: Refer to the noxious weed section of this appendix for management direction related to noxious weeds.</td><td></td><td>Veg-O1: Map vegetative ground cover components, and forest overstory of plant communities for the whole of the HCNRA in an iterative process, beginning with existing data (i.e., some areas of the HCNRA will be much less detailed than other areas at first). Update the mapping annually with information that has been gathered during the year.

Veg-G1: Use existing data wherever possible, and determine which data are most in need of ground truthing. Determine major gaps in data, and implement cost-effective, but sufficient, methods of filling these major gaps.</td></tr>
<tr><td>Management Area 10
Veg: Manage timber stands included in these areas as old growth. Timber harvest may occur but these stands will be an unregulated component of the timber base; i.e., there will be no potential timber yield calculated for these stands. Timber management activities would take place only when determined desirable for wildlife habitat improvement or for recreation or scenic values. (CMP)</td><td></td><td>Veg-S2: Harvest of any parts of nonconiferous plant, lichen, or fungal species shall be limited to incidental use only. Incidental use is defined as possession of one gallon of any part of any species of plant, lichen, or fungal material. In some cases, commercial permits may be issued outside Wilderness after appropriate NEPA analysis. Any legally designated noxious weed would be exempt from this standard; they may be harvested in unlimited quantities without a permit. In addition, American Indians collecting plant, lichen, or fungal materials under treaty rights would be exempt from this limitation. (New)</td><td>All Management Areas
Veg-O1: Manage forest and grassland vegetation to maintain viable and healthy ecosystems that ensure: the maintenance and/or enhancement of fish and wildlife habitats; conservation of scenic, wilderness, and scientific values; preservation of biologically unique species, habitats, and rare combinations of outstanding ecosystems; wild and scenic river's outstandingly remarkable values. (CMP, Imnaha WSR Plan, Snake River Plan)</td><td>Veg-S1: Establish permanent plots and transects, where not yet established, to cover the range of diversity, including plots in disturbed areas of all major vegetation types.

Veg-G2: Gather and compile data with communication in mind: With existing GIS data bases, commonly used software, non-Agency scientists, students, scientific and citizen organizations, and the public.</td></tr>
<tr><td>Management Area 11
Veg: Permitted silvicultural treatments include shelterwood cutting, individual tree selection, sanitation, salvage, and intermediate cuts. Precommercial and</td><td colspan="2">Management Areas 4, 8, 9, and 12
Veg-O3 for MAs 4, 8, 9, and 12: Allow forest and grassland vegetation to function in a nearly natural manner with major disturbances being the result of natural events and processes such as wildfires, WFU, storms, floods, landslides, wildlife grazing, insects and diseases, and rodents.</td><td>Veg-O2: Manage vegetation to control insect and disease levels. (New)

Veg-G1: Early prevention of</td><td>Veg-O3: Reverse trends of declining native plant species in the HCNRA via a "Declining Native Plants" management plan.</td></tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
commercial thinning with individual thinning not exceeding two acres are permitted. Maximum opening size is two acres if created for timber management purposes. Large openings may be created for other resource objectives. However, such proposals are to be considered discreetly on a case-by-case basis through the NEPA process. (CMP superseded by Public LURs) **Veg:** Maintain the 60 percent snag level as described in *Wildlife Habitats in Managed Forests of the Blue Mountains* (Thomas et al 1979), except where snags are a safety hazard. (Forest Plan, CMP) **Veg:** Manage for representation by TRI compartment of five basic successional stages or age classes: grass-forb, brush-seedling, pole-sapling, young, and mature in addition to allocated old growth. (CMP superseded by Public LURs) **Veg:** Retain at least 10 percent of commercial forest land as old growth. Hiding cover as defined in *Wildlife Habitats in Managed Forests of the Blue Mountains* (Thomas et al 1979) will be maintained at no less than 60 percent of the optimum situation as it relates to size and spacing of forage and cover blocks. (Forest Plan, Eastside Screens, existing CMP superseded by Public LURs) **Veg:** Manage riparian zones to provide continuity between old-growth stands. (CMP) **Veg:** Limit timber harvest roads to the minimum necessary for haul of equipment and logs, consistent with protection of other resources. Emphasize log yarding systems that minimize the need to construct roads. Close timber harvest roads unless needed to meet recreation objectives. All new roads will meet or exceed visual management objectives. (CMP) **Veg:** Discourage skidding across meadows, scablands, and natural openings. (CMP)	Similar human-caused management practices such as livestock grazing, prescribed fires, and in some cases fire suppression would be compatible with the primary objectives of the *HCNRA Act* outside the Wilderness. (New) **Veg-G1 for MAs 4, 8, 9, and 12:** If a particular insect or disease infestation becomes a concern, involve specialists and the public to determine whether it warrants control efforts. Control methods may include insect trapping, prescribed fire (PF), biological controls, and aerial spraying. (New) **Management Areas 7, 10, and 11** **Veg-O2 for MAs 7, 10, and 11:** Manage forest and grassland vegetation to maintain viable and healthy ecosystems that ensure: the protection and enhancement of fish and wildlife habitats; conservation of scenic, and scientific values; preservation of biologically unique species, habitats, and rare combinations of outstanding ecosystems; protection and enhancement of a wild and scenic river's outstandingly remarkable values; and compatible public outdoor recreation. (New) **Veg-O3 for MAs 7, 10, and 11:** Manage vegetation to control insect and disease levels, consistent with the Section 7 objectives of the *HCNRA Act*. (New) **Veg-G2 for MAs 7, 10, and 11:** Early prevention of insect and disease epidemics can be considered more favorable than applying control methods after infestations have already occurred; however, control can be a viable option. Prevention methods may include silvicultural treatments and PF. Control options may include insect trapping, use of pesticides and biological controls. (New)	epidemics is favored over application of control methods after infestations have occurred. However, control must be a viable option, when necessary. Prevention methods may include silvicultural treatments, PF, biological controls, and grazing. Control options may include biological controls and spraying of appropriate pesticides. (New) **Veg-O3:** Manage native and introduced vegetation at administrative and developed recreation sites to meet the objectives of the site plan, and to meet health and safety needs of all users. (New)	**Veg-S4:** The "Declining Native Plants" management plan should include the following direction: 1. Estimate the relative population decline of all native plant species in the HCNRA. 2. Establish protection and enhancement priorities for declining native plant species. 3. Establish interpretive opportunities and priorities. 4. Develop research design and establish research priorities for understanding the decline of particular declining native plant species. 5. Develop a protection and restoration plan for declining native plant species. 6. Establish monitoring priorities and develop a monitoring plan and monitoring schedule. 7. Develop/establish inventory priorities for uninventoried portions of the HCNRA.
	Management Area 16 **Veg-O4 for MA 16:** Manage native and introduced vegetation at administrative and developed recreation sites to meet the objectives of the site plan, and to meet health and safety needs of all users. (New) **Restoration** **Veg-O5:** As appropriate, and as determined to be necessary within overall goals for HRV, maintain or restore ecosystem function, conserve soil, and enhance native plant species and communities. Ensure the continued viability and genetic integrity of all native plant species in the HCNRA. Maintain and enhance biological diversity, sustain long-term site productivity, and ensure the function and sustainability of native plant communities. (New) **Veg-G3:** Restore riparian and upland vegetation where current conditions are below desired levels or outside the HRV. Enhance and protect vegetation improvement project areas as needed to ensure establishment and long-term sustainability. (New) **Veg-G4:** To the extent practicable, seeds and plants used in erosion control, fire rehabilitation, riparian restoration, forage enhancement, and other revegetation projects shall originate from genetically local sources of	**Veg-S1:** Follow the *Integrated Noxious Weed Management Plan* (USDA 1992) and the USFS Yellow Starthistle Management proposal to manage noxious weeds in the HCNRA. (INWM Plan) **Restoration** **Veg-O4:** As appropriate, maintain or restore ecosystem function, conserve soil, and enhance native plant species and communities. Maintain sustain long-term site productivity. (New) **Veg-G2:** Restore riparian and upland vegetation where current conditions are below (not at) desired levels as determined by site specific	**Veg-S5:** In all revegetation efforts, use, if at all possible, native seed and seedlings that have been grown from seeds of plants closest to the habitat being revegetated. **Veg-O4:** Determine the feasibility of providing habitat that has been extirpated or nearly extirpated for native plant species in HCNRA. **Veg-S6:** Prepare a public report on reintroduction potentials, including foreseeable human activities or developments that would foreclose options for such reintroductions. **Veg-S2:** Prepare a report on the presence and degradation of biological crusts in various areas within the HCNRA.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Veg: The following minimum basal areas, target tree sizes, and entry frequencies are prescriptive guidelines which will generally be followed in designing timber sales. (CMP)	native species. When project objectives justify the use of nonnative plant materials, documentation explaining why nonnatives are preferred would be part of the project planning process. As costs, availability, and technical knowledge permit, use of local native plant materials shall become standard practice. (New) **Veg-G5:** For restoration projects that use nonnative plants, give preference to species that are nonpersistent in the environment, and that meet site-specific objectives. (New) **Veg-G6:** In some cases persistent nonnative perennials may be used. This shall be the exception rather than the rule. Administrative sites such as backcountry airstrips, historical ranches, and campgrounds are areas where this may be necessary. Roadsides and other areas of high erosion hazard and low chance of natural re-establishment by native plants are other areas that may need this treatment. (New) **Veg-G7:** Consider the likelihood of natural recovery of native vegetation when analyzing the need for rehabilitation. Assess the probability of resprouting, and natural seedling establishment before prescribing reseeding projects. In areas with a moderate to high probability of natural recovery, allow natural processes to proceed without artificial seeding. (New) ***Note to the reader*: Refer to the Wilderness section for additional direction on restoring vegetation in the Hells Canyon Wilderness.**		analysis. (New) **Veg-G3:** To the extent practicable, seeds and plants used in erosion control, fire rehabilitation, riparian restoration, forage enhancement, and other revegetation projects shall originate from genetically local sources of native species. When project objectives justify the use of nonnative plant materials, documentation explaining why nonnatives are preferred will be part of the project planning process. (New)	**Veg-O2:** Prepare and implement a recovery plan for damaged biological crusts within the HCNRA. **Veg-S3:** Establish monitoring plots for condition of biological crusts in grassland and ponderosa pine areas which have experienced various degrees of livestock and other disturbances, and in areas slated for recovery efforts.
Forested Vegetation				
Management Area 11- Minimum period between entries: 5-20 years (final decision will be made as part of the Forest planning process and will vary by species). (CMP) Target tree size: 30 inches DBH in visual retention foreground areas if biologically feasible; 10-12 inches DBH in lodgepole pine ecotypes and lodgepole pine-dominated species; 15-20 inches DBH in remaining areas. (CMP) Minimum residual basal areas: Growth basal areas at 10 rings per inch. (CMP) **Veg:** Salvage of timber mortality during reentry periods may occur when dead trees exceed the numbers that would result in more than optimum (100%)	**For-O1:** Outside wilderness, manage forested vegetation to maintain the HRV for structural stages (i.e. stand initiation, stem exclusion/open canopy, stem exclusion/closed canopy, understory reinitiation, multi-stratum without large trees, multi-stratum with large trees, and single stratum with large trees). Determine the HRV by watershed and biophysical environments (plant associations grouped by similar soil temperature and moisture regimes). (New)	**For-O1:** Outside wilderness, manage forested vegetation to restore the HRV for structural stages (i.e. very-early, early, early/late-mid, late/Old). Refer to **Chapter 3, Forested Vegetation,** and **Table C-13: Total Potential Acres of Forested Vegetation Treatment by Alternative** in this appendix for a description of forested vegetation. (Eastside Screens)	**Forest Stand Management** **For-O1:** Manage forested vegetation to maintain and/or enhance forested watershed conditions. (Forest Plan) **For-S1:** Follow the watershed approaches in the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy* (Wallowa County 1999) for forest management. (New) **For-S2:** Timber volume removed from the HCNRA is classified as unregulated and does not contribute to the WWNF allowable sale	**Goal 1:** Approximately 20 percent of the HCNRA exists in forest cover. Native forest habitat, structure, function, and a diversity of forest conditions (e.g., burned areas, diseased areas, old growth, diverse forest plant communities, successional stages later than grass, seedlings) will be protected and restored as possible through natural forest processes reflected in the natural capability of the land. Native fauna as well as the forest habitat upon which it is dependent will be maximized. Native forest habitat on the HCNRA will be maximized rather than creating or duplicating habitat conditions which exist in abundance on nonforested areas of the HCNRA (e.g., grasslands, meadows, openings, edges).

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
snag levels. Salvage of fallen timber concentrations are permitted when exceeding five trees per acre. (CMP) **Veg:** Activities which might affect water quality will be conducted in accordance with "best management practices" as described by the *Clean Water Act* (P.L. 95-217) and FS directives. (CMP) **Veg:** Potential yield volumes will be specified in the *Wallowa-Whitman National Forest Land and Resource Management Plan*. (CMP, Public LURs) **Veg:** Utilize Knutson-Vandenberg funds on timber sale areas when and where appropriate to help meet recreation objectives. (CMP) **Veg:** Visual quality objectives will be met or exceeded within one year following timber sale activities. (CMP) **Veg-O:** Allow forest and range land insects and diseases to play a natural ecological role in the environment consistent with other HCNRA values. (CMP) **Veg:** Emphasize the prevention of unacceptable insect and/or disease outbreaks through careful resource and recreation management activities including, but not limited to: (CMP) ▪ the encouragement of vegetative size, age, and species diversity; ▪ removal of infected trees; ▪ logging residue cleanup; ▪ prevention of tree damage during recreation development and use and road building; ▪ practice stocking control in timber stands; and ▪ prescribed burning. **Veg:** Cultural, biological, chemical and/or mechanical methods of pest management will be considered through the integrated pest management	Refer to **Chapter 3, Vegetation – Forested,** and **Table C-13: Total Potential Acres of Forested Vegetation Treatment by Alternative** in this appendix for a description of forested vegetation. (Eastside Screens) **For-O2:** Manage livestock grazing within forested stands to ensure ecological function and sustainability of understory vegetation consistent with management of overstory vegetation objectives. Use grazing-related standards and guidelines to manage grazed forested understory vegetation. (New) Timber volume removed from the HCNRA is classified as unregulated and does not contribute to the WWNF allowable sale quantity. (Public LURs) **Management Areas 4, 8, 9, and 12** **For-S2 for MAs 4, 8, 9, and 12:** WFU is the primary activity available to achieve a natural structure. PF may be used to facilitate WFU or to protect nonwilderness values. Timber harvesting is prohibited in the Hells Canyon Wilderness (MA 4) except as provided for in Sections 4 (c) and (d) of the *Wilderness Act* and regulations at 36 CFR part 293. Forest vegetation management activities and the gathering of fuelwood is prohibited in MAs 4, 8, 9, and 12, except that dead and down wood may be used for campfires, administrative, and permitted uses, where applicable. *(Note: Use of dead and down wood in MA 8 for campfires is prohibited).* (New) **Management Areas 7, 10, and 11** **For-S3 for MAs 7, 10, 11:** Silvicultural treatment and PF shall be the primary methods used to achieve a desired forested vegetation structure. (New) **For-S4 for MAs 7, 10, and 11:** Vegetation management activities in forested stands shall protect and enhance ecosystem health, wildlife habitat, or recreational and scenic uses; or to respond to natural events such as wildfire, flood, earthquake, volcanic eruption, high winds, and disease or insect infestations (Public LURs 36 CFR 292.46). **For-S5 for MAs 7, 10, and 11:** Silvicultural treatment activities shall maintain a viable and healthy ecosystem and be designed to replicate the naturally-occurring processes which shape the character of the landscape. Natural disturbance regimes most commonly operating in the HCNRA include: wildfire, high winds, and insect/disease infestations. Forest vegetation and fuels management activities based upon ecological principles can be implemented to mimic these kinds of natural disturbance events. (New) **For-G1 for MAs 7, 10, and 11:** Openings created by harvesting forest products must be limited in size and number to the minimum necessary to accomplish the purpose of the harvest, and must blend the natural landscape to the extent practicable. (Public LURs)		quantity. (Public LURs) **For-S3:** Silvicultural treatment activities shall maintain a viable and healthy ecosystem. (CMP) **For-G1:** The tree density should be 40-50 percent shading (winter sun) at noon on 50 percent of all forested watersheds. (New) **For-G2:** Maintain appropriate average density of trees, e.g., 50 - 110 square feet per acre basal area on south facing slopes and ridges and 90-160 square feet per acre basal area on north facing slopes. (New) **For-G3:** Riparian management should be site-specific with the realization that the design of silvicultural treatments will be to enhance all the attributes of the riparian zone. (New) **For-S4:** Silvicultural treatments available to achieve a desired structure include: Uneven-aged management, single-tree selection, group selection, prescribed natural fire, PF, commercial thinning, precommercial thinning, salvage, and sanitation cutting. (CMP)	Native forest structure and functions will be protected and restored with least intensive management whose objective is ecological, not commercial. Vegetation activities that may reduce the protection and recovery of native forest ecosystem and wildlife habitat will be minimized to the extent possible. **Veg-O9:** Ensure that all gathering of nontimber forest products (e.g., mushrooms, ferns, bear grass, huckleberries) in the HCNRA is on an ecologically sound and random, rather than thorough manner. **Veg-S12:** Prepare science-based protocols that must be signed by a person as a necessary part of receiving a permit to gather specific vegetation in the HCNRA for commercial purposes. The protocol will require: (a) leaving sufficient amounts to ensure healthy populations; and (b) using ecologically sound methods of harvest. **Veg-S13:** If a permit condition is violated, enforcement that obviates profits will be pursued. **Veg-G4:** Prepare science-based protocols that must be observed by visitors gathering vegetation for recreational or personal purposes. Distribute a copy of this protocol to all visitors requesting information on such activities, and to visitors observed gathering nontimber forest products. **Veg-O10:** Use or develop survey and management protocols for uncommon plant species. Particular attention will be directed at survey and management protocols for lichens, fungi, and vascular and nonvascular plants. **Veg-S14:** Incorporate habitat redundancy (i.e., surplus habitat, and large habitat areas and populations distributed across the landscape similar to its historical distribution) to anticipate

Alternative A	Alternative B / Alternative E-modified	Alternative W	Alternative N
approach. Biological control measures will be stressed when practicable. (CMP) **Veg:** Pesticide use, when it becomes necessary, will be in accordance with existing laws, regulations, and EPA guidelines. (CMP)	**For-S6 for MAs 7, 10, and 11:** Manage forested vegetation at dispersed recreation sites and along transportation corridors to meet health and safety requirements and to protect forest users. This may include cutting trees considered hazardous to the recreating and traveling publics. (New)		natural variability, the potential for habitat loss, and human ignorance of habitat needs. **For-O1:** Identify existing forest vegetative structures, habitat types, and conditions throughout the HCNRA for use as a baseline in planning and decision-making. **For-O2:** Analyze the forested landscape of HCNRA, utilizing existing data (e.g., GIS, TRI, stand analyses, landsat data). The smallest analysis area is 15,000 acres. Ground truth 20% of every condition type in the HCNRA to verify the data and data interpretation within the analysis. **For-S3:** Landscape analysis will be completed within five years of adoption of this plan. This HCNRA-wide analysis will be verified through 20% ground truthing of each habitat type. (The FS should encourage the use of volunteers and volunteer groups for ground truthing.) All data from this analysis will be entered into a database. As conditions change through effects of fire, insects, disease and human activities, the database will be updated. These updates will occur annually. Ground truthing of 20% of the updates and 5% of the HCNRA-wide analysis will occur annually **For-O3:** Identify all existing old growth within the HCNRA. This will become Designated Old Growth, and will be protected from any and all logging activities. **For-G1:** Create a new and updated definition of old growth (in accordance with scientific research and specialists in old growth) to reflect not only specific components of habitat, such as snags and down woody material, but also (a) the characteristics of advanced successional stages and plant
	For-S7 for MAs 7, 10, and 11: Allow for fuelwood removal compatible with Forest fuelwood policies in MAs 10 and 11. Prohibit fuelwood removal in the wild river sections of MA 7. (Fuelwood Program) ***Note to the reader: Refer to the Access and Facilities section of this chapter for management direction related to gathering fuelwood.*** **For-S8 for MAs 7, 10, and 11:** Silvicultural treatments available to achieve a desired structure include: Uneven-aged management, (single-tree selection and group selection), WFU for resource benefits, PF, commercial thinning, precommercial thinning, salvage, and sanitation cutting. (New) ***Note to the reader: The following explanation of silvicultural treatments is provided to further describe management direction in this section.***		
	Uneven-aged Management (Single-Tree Selection) *This silvicultural system is intended to perpetuate uneven-aged stands composed of intermingled trees of differing ages, species, and sizes. Individually selected trees are removed to maintain a desired range of tree sizes over a prescribed distribution. Cyclic entries designed to control the structure and species composition and provide the openings necessary for establishment and growth of the continuously occurring regeneration are a function of the site quality and resource considerations.* (New)	***Uneven-aged Management (Single-Tree Selection)*** Same definition as alternatives B and E-modified.	
	Uneven-aged Management (Group Selection) *The group selection variant of uneven-aged management is designed to facilitate the establishment of shade intolerant species, reduce damage to the residual stand, and lengthen the cyclic entry period. The opening created under the group selection prescription would often be no larger than one to two tree heights (as influenced by aspect and slope) so as not to lose the site protection afforded by the surrounding trees. Size, shape, and location of groups should be designed to achieve landscape character goals and scenic integrity objectives* (New)	***Uneven-aged Management (Group Selection)*** Same definition as alternatives B and E-modified.	

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td rowspan="2"><u>Note to the reader</u>: Refer to the Fire section of this appendix for management direction related to fire.</td><td colspan="2">Prescribed Fire (PF) and Wildland Fire Use for Resource Benefits (WFU)

Since early in the 20th century, the natural role of fire has been partially excluded from ecosystems on the HCNRA by effective fire suppression. This intervention has altered the natural function of ecosystems. Fuels accumulate and stand structures become more homogeneous in the absence of periodic fire, or other disturbances.

The long-term effect of these conditions is to create conditions for wildfires to burn outside of the intensities and scales that the plant community has adapted. The continued exclusion of fire may produce effects counter to values for which the HCNRA was classified. Where applicable, reintroduction of fire into the ecosystem would protect and maintain diversified stand structures across the landscape.

PF is intended to mimic natural fire regimes to; 1) reduce the risk of fires burning outside of historic intensities and severities that could substantially reduce long-term productivity; 2) maintain tree species compositions that occur under the natural disturbance regime; 3) reduce competition; 4) increase nutrients; 5) prepare sites for natural regeneration; 6) improve forage resources; 7) enhance/create wildlife habitat; and 8) protect private and public property values. (New)</td><td>Prescribed Fire (PF) and Wildland Fire Use for Resource Benefits (WFU)

Same definition as alternatives B and E-modified except PF should not consume commercial wood products or herbaceous forage that could be removed in a commercially viable manner. (New)</td><td>communities and (b) different northeastern Oregon climax types related to the site.

For-S2: Coniferous old growth will be defined as coniferous forests with at least one overstory tree more than 150 years old or greater than 21 inches in diameter. One such tree would be surrounded by a minimum one-half (0.5) acre of designated old-growth site if some other features of an old-growth ecosystem are present, or the site has potential for restoration of old-growth characteristics. Dead standing and fallen trees are usually present on every acre of old-growth sites. Size or age suffices to characterize trees in coniferous old- growth forests. [Note: Only old-growth sites ten acres or larger bring a 500 acre protection designation, see Standard For-S4.]</td></tr>
<tr><td>Commercial Thinning

Commercial thinning is designed to improve the health and vigor, increase resilience, enhance shrub/forb layer diversity and accelerate development of large pole- and small tree-sized material and reduce the potential risk of major, stand-replacing disturbance event such as fire, disease and insect infestations, and thereby protect and enhance ecosystem health and restoration. Residual densities would be chosen to maintain wildlife habitat requirements, optimize stand vigor and health, meet landscape character goals and scenic integrity objectives, and allow for the future function of natural fire. (New)</td><td>Commercial Thinning

Commercial thinning is designed to improve the health and vigor, increase resilience, enhance shrub/forb layer diversity, move stands from a seral/structural stage above HRV to another seral/structural stage which the HRV analysis shows to be deficit by accelerating development of large pole- and small tree-sized material, and reduce the potential risk of major, stand-replacing disturbance events such as fire, disease and insect infestations, and thereby protect and enhance ecosystem health and restoration. Residual densities would be chosen to maintain wildlife habitat requirements, optimize stand vigor and health, meet landscape character goals and scenic integrity objectives and allow for the future function of natural fire. (New)</td><td>Commercial Thinning

Same definition as Alternative B. (New)</td><td>For-S3: Designated old growth areas will have buffer zones (250' corridor surrounding the old growth area) to maintain feeding and nesting areas for old growth-dependent species. Only compatible, activities will be allowed in buffer areas. Prohibit within the buffer zone any practice that limits the feeding and nesting use of the designated old growth area. (For example, many old growth areas are smaller than the nesting territories of pileated woodpeckers. Improving the down woody material and shade in the buffer zone will add to their food supply of ants. Prohibit removal of such material or shade.)

For-S4: All old growth areas will be protected from logging. Any designated old growth site ten acres or larger will be protected to a minimum area of 500 acres. Within those 500 acres, non-old growth habitat will be allowed to naturally proceed toward late succession old growth conditions.

For-S5: Within five years, a minimum of 10% of the forested land of the</td></tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Precommercial Thinning *Precommercial thinning is designed to improve the health and vigor, increase resilience, enhance shrub/forb layer diversity and accelerate development of sapling to small pole-sized material and promote stand differentiation in stands otherwise displaying poor differentiation and thereby protect and enhance ecosystem health and restoration by reducing risk to disease or insect infestations. Stand differentiation is a condition where individual tree dominance is expressed, rather than overall stand stagnation.* *Stands which differentiate would maintain a higher level of growth and vigor, and a greater resistance to damaging agents such as insects, disease, fire, snow, and wind damage. A rapidly-growing, differentiating stand also offers the most options for future treatment and the most flexibility for meeting diverse management objectives.* *Site-specific prescriptions would be developed to be compatible with recreation, scenery and wildlife objectives. Maximum treatment areas for both commercial and precommercial thinning proposals would be limited to achieve the standard of maintaining big-game cover on summer range at 60 percent of potential based on stand structure HRV levels.* (New)	***Precommercial Thinning*** *Precommercial thinning is designed to improve the health and vigor, increase resilience, enhance shrub/forb layer diversity, move stands from a seral/structural stage above HRV to another seral /structural stage which the HRV analysis shows to be deficit by accelerating development of sapling to small pole-sized material, and promote stand differentiation in stands otherwise displaying poor differentiation and thereby protect and enhance ecosystem health and restoration by reducing risk of fire and disease or insect infestations.* *Stand differentiation is a condition where individual tree dominance is expressed, rather than overall stand stagnation. Stands which differentiate would maintain a higher level of growth and vigor, and a greater resistance to damaging agents such as insects, disease, fire, snow, and wind damage.* *Site-specific prescriptions would be developed to be compatible with recreation, scenery and wildlife objectives. As much as possible, within the context of maintaining structural stages atHRV levels, maximum treatment areas for both commercial and precommercial thinning proposals would be limited to achieve the standard of maintaining big-game cover on summer range at 60 percent of potential.* (New)	***Precommercial Thinning*** *Same definition as Alternative B.* (New)	HCNRA will be designated old growth or additional protected areas (i.e., the 500-acre minimum areas, buffer zones). **For-O4:** Allow fires, native insects and native pathogens to influence forest structure and function through endemic (and epidemic) population levels. Evaluate the role of nonnative insects and pathogens on a case-by-case basis for their potential to mimic the roles of native insects and pathogens. Don't try to improve things where nature is already working to fix itself. **For-G2:** Support beneficial impacts of pests on the ecosystem by maintaining a variety of species, successional stages, and conditions throughout the forest, avoiding monocultures and limiting stressful growing conditions. **For-S6:** If nonnative insects or pathogens are damaging the function or succession of forests, suppression activities may be undertaken only if such activities do not cause additional stresses (e.g. introduction of toxic chemicals) to the system. **For-O5:** Allow sites disturbed by fire, insects, pathogens, wind or other “pests” to recover naturally. **For-S7:** Exclude salvage and sanitation harvests from the HCNRA. **For-O6:** Maintain native understory grass swards in sufficient diversity, density, and cover to carry cool fires and control tree seedling establishment. **For-S8:** All proposals to permit or undertake livestock grazing will include an estimate of each alternative’s comparative potential to protect, restore, degrade, or enhance the understory grass sward beneath forests.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Salvage Cutting *Salvage cuttings are made for the primary purpose of removing trees that have been or are in imminent danger of being killed or damaged by injurious agents other than competition between trees. Damage to forest from fungi, insects fire, wind and other agents occurs almost continuously. The goals of salvage cutting may be to: 1) capture the highly perishable capture the highly perishable values in trees that are seriously damaged, dying, or already dead; 2) provide space vacancies that may be claimed by younger and more vigorous trees of desirable species; 3) reduce extremely heavy dead wood fuel loadings and thereby reduce the negative impacts of high intensity fire that may damage soils, watersheds, and long-term site productivity potential; 4) remove damaged, dying, or dead tree considered hazardous to forest users or facilities and improvements; 5) maintain long-term operability on the terrain by removing dead and dying trees that fall down and hamper current recreation uses or future resource management operations; and 6) reduce fuel loading by product utilization to reduce smoke emissions or negative impacts to air quality produced by either prescribed or conflagration wildfire.* (New)	***Salvage Cutting*** *Salvage cuttings are made for the primary purpose of removing trees that have been or are in imminent danger of being killed or damaged by injurious agents other than competition between trees. Damage to forests from fungi insects, fire, wind and other agents occurs almost continuously. The goals of salvage cutting may be to: 1) provide space vacancies that may be claimed by younger and more vigorous trees of desirable species to increase stand resilience or move stands from a seral/ structural stage above HRV to another seral/structural stage which the HRV analysis shows to be deficit; 2) reduce extremely heavy dead wood fuel loadings and thereby reduce the negative impacts of high intensity fire that may damage soils, watersheds, long-term site productivity potential, and air quality; 3) remove damaged, dying, or dead tree considered hazardous to forest users or facilities improvements or access routes.* (New)	***Salvage Cutting*** *Same definition as Alternative B.* (New)	**For-S9:** Any decision to permit livestock grazing within a forested allotment will include establishment of adjacent, paired exclosures of sufficient size to establish documentation of consequences of the livestock grazing for tree seedling establishment, soil infiltration rate, grassland cover, soil filter, soil compaction, and runoff and erosion. Exclosures will be paired to match distinctive and significant soil and vegetation types of the forested allotment. At least one ecologically meaningful exclosure for each forest type that is being grazed by livestock in the HCNRA will be established and referenced. **For-O7:** Undertake vegetative management only to maintain or rehabilitate structure and function within the ecosystem (e.g., to favor the growth of some individual trees or to favor species other than lodgepole that will grow to old growth size). **For-G3:** Avoid duplicating conditions that already exist in nonforested habitat. For example, it is unnecessary to create openings in forested areas when openings already exist in nearby or adjacent nonforested areas. **For-S10:** To accomplish any necessary vegetative management, use the least mechanical/intensive methods to minimize impacts and maximize potential local employment.
	Sanitation Cutting *Sanitation cuttings involve the elimination of trees that have been attacked or appear in imminent danger of attack by dangerous insects and fungi in order to prevent these pests from spreading to other trees. Sanitation cuttings differ from other forms of salvage cuttings only to the extent that they are combined with or represent precautions to reduce the spread of damaging organisms to the residual stands. They may also be undertaken in anticipation of attack in attempts to forestall the establishment of damaging organisms. They can be and usually are combined with salvage cuttings. (New)*		***Sanitation Cutting*** *Same definition as alternatives B and E-modified.* (New)	**For-S11:** All commercial vegetation management will be dependent on ecological need as determined by ecological analysis [see Figure 1.Forest Health Compatibility and Decision-Making in Hells Canyon NRA (Walder 1995) in **Appendix J,** Forest note 1] and such management will be limited to specific stands with density or species composition problems. When ecological and commercial

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	For-G3 for MAs 7, 10, and 11: As much as possible, within the context of maintaining structural stages at HRV levels, manage riparian zones to provide connectivity corridors between late/old structure stands. (Eastside Screens, CMP)			considerations diverge, ecological considerations will be utilized. **For-S12:** All thinning that takes place will remove only small diameter trees (i.e., less than 20 inches diameter at breast height (DBH), or even less, considering recruitment needs, hiding cover for game, etc.) thus enhancing stand structure and reducing fire risks. **For-G4:** Excess material and fuel loading can be reduced through lop-and-scatter techniques. Under certain conditions (refer to Fire section), PF may be desirable to recreate the effects of a natural surface fire. **For-S13:** No new roads will be built for vegetative manipulation. **For-S14:** A finding that insects, pathogens, or other nonmanagement processes are not sufficient to move the forests toward ecological health must precede any proposal for vegetation management. **For-S15:** Establish key indicators that management activities are moving the forest to the stated ecologically-improved condition, and monitor all vegetation management areas with scientifically appropriate control areas. Absent monitoring of the consequences of similar vegetation management activities within the previous year, additional vegetation management projects may not proceed. **For-O8:** Limit hazard tree removals to conditions that have been demonstrated to be hazardous, and only to such hazard trees directly adjacent to roads or within campgrounds. **For-S16:** Wildlife snags will be maintained, and hazard trees which are felled will be left on the site to decompose naturally and enhance soil conditions. (If fire risks are already too

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				high on specific sites due to an overabundance of downed woody material, the felled trees will be transported to a more appropriate location in order to decompose naturally and enhance soil conditions.) **For-S17:** Any proposal to remove hazard trees adjacent to a road of Maintenance Level 1-3 will be preceded by an Environmental Assessment or Environmental Impact Statement which explicitly considers the benefits and drawbacks of road closure. **For-O9:** Maintain connectivity between different habitat types within forested habitat by protecting and enhancing travel corridors for wildlife. **For-S18:** Corridors will be at least 1/8 mile wide (660') in dense forest or 1/4 mile wide (1,320') in open forest conditions.) **For-S19:** Riparian corridors will be maintained in addition to nonriparian travel corridors. The highest protection PACFISH standards will be used, until new standards are developed which offer greater protection to riparian areas. **For-O10:** Any area that may receive vegetative treatment or manipulation will first be analyzed for necessary snag retention based on needs of snag-dependent wildlife. Beneficial snag trees that meet, at minimum, these guidelines, will be marked for retention.Fuelwood permits may be issued for specific areas to reduce fuel loads by down trees. **For-S19:** Fuelwood cutters who fell marked wildlife trees will be fined so as to eliminate any profit, and permits will be revoked permanently on the HCNRA. Fines will be used to help fund enforcement of firewood cutting regulations.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				For-S20: No firewood sale will be allowed prior to marking of wildlife trees. **For-S21:** Each year 25% of all firewood sales will be examined after firewood removal for documentation of percent retention of wildlife trees. Marking of wildlife trees for retention will be increased the following year in order to (a) compensate for unanticipated illegal losses in the previous year; and (b) a buffer of equal number to anticipate repeated failure to adequately protect wildlife-marked trees.
Grasslands and Forest Understory				
Note to the reader: ***Reference Forest Plan (pages 4-51 through 4-54), PACFISH (pages C-12 through C-13), and INFISH (pages A-8 through A-9) for additional management direction.***	***Refer to Vegetation and Forested Vegetation sections above for corresponding goals for grasslands.***		***Refer to Vegetation and Forested Vegetation above for corresponding goals for grasslands.***	**Goal 1:** The grassland habitat of the HCNRA will be dominated by native vegetation and native animals, as native grassland is a biologically rare assemblage and critical wildlife habitat in the bioregion. Because of the profound alteration by humans of native bunchgrass lands throughout the bioregion, HCNRA grasslands management goals are therefore based primarily on protection and recovery. Native grassland habitat within the HCNRA requires management that provides for: 1) Minimized disturbance of native grassland composition, structure, and functions (e.g., the ability to support cool fires; limit establishment of tree seedlings; provide soil permeability; avoid runoff and erosion; retain soil litter and biological crusts; provide nutrients for native vegetation; and provide cover, forage, and nesting habitat for game and nongame grassland-dependent wildlife and invertebrates). 2) Restoration of native grassland structure and function through excellent riparian conditions and protection of soil from human-related disturbances. 3) Near-natural rates of recovery of all degraded riparian features. Livestock grazing will not be allowed to measurably slow or retard recovery of degraded riparian

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				features. 4) Protection of all springs, seeps, intermittent and ephemeral streams, and all other wetlands located within the grasslands. 5) Promotion of open, healthy forests and competition with tree seedlings through a healthy understory of native grasses. 6) Reduction of nonnative grassland vegetation, where possible, by provision for native grassland recovery and avoidance of activities that promote the spread of nonnative and noxious plants. 7) Retention of livestock grazing only as is documented to be compatible with the protection and maintenance or restoration of fish and wildlife habitat, conservation of wilderness values, preservation of rare combinations of aquatic and terrestrial habitat (including forests through maintenance of an adequate native grass understory), and preservation of rare combinations of diverse ecosystems and parts of such ecosystems. Financial accounting for the costs associated with livestock grazing will be utilized in determining the compatibility of livestock grazing with these habitats, ecosystems, and values. 8) Revocation of specific livestock grazing permits if schedules for monitoring and reviewing compatibility of livestock grazing with mandated HCNRA ecosystem values are not met. 9) Retention of approximately half of the HCNRA as livestock-free native grassland through closure of all ten allotments which currently do not have livestock grazing. These allotments are invaluable as (a) areas in which to study the nature and rate of native HCNRA ecosystem recovery in the long-term absence of livestock grazing; (b) reference plots for estimating compatibility of livestock grazing with ecosystem protection; and (c) remnants of native grasslands in the bioregion, given the reality that native herbaceous species in the Interior Columbia River Basin did not evolve under intense grazing from large mammalian herbivores and are not adapted to tolerate this disturbance.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Gra-O: Maintain or improve range conditions through a carefully designed range management program. Bring all ranges currently in a less than satisfactory condition to at least an improving trend by the end of this planning period. Do not permit any deteriorating range conditions. (CMP) **Gra-O:** Minimize conflicts and competition between livestock and wildlife and maintain wilderness values in classified wilderness. (CMP) **Gra-O:** Maintain grazing on NFS land as a traditional and valid use. (CMP) **Gra-O:** Develop range resources to their reasonably attainable potential and manage them for their sustained forage production within provisions of the *HCNRA Act*. (CMP) **Gra:** Initially, maintain domestic livestock numbers in Oregon at approximately the 1969-1978 ten-year average. One the Idaho portion, maintain domestic livestock number at approximately the 1981 permitted levels. (CMP)	**Gra-O1:** Manage grassland vegetation to ensure continued ecological function and sustainability of native ecosystems. Maintain and/or restore the HRV for ecological status as expressed through similarity with PNC (i.e. expressed in terms of late-seral, mid seral, early-seral, and very-early seral). Determine the HRV by watershed and land forms (montaine terrain, ridge tops, upper slopes, benches, lower slopes, and bottom. (New)	**Gra-O1:** Manage grassland vegetation to ensure continued ecological function and sustainability of native ecosystems. Maintain and/or restore the ecological status of grassland communities to their PNC recognizing their HRV. (New) **Gra-O2:** Develop management plans for all active grazing allotments which address identified issues and compatibility with the provisions of the *HCNRA Act*. (New) **Gra-O3:** Evaluate rangeland capability and suitability, and present rangeland condition or ecological status in relation to PNC. (New) **Gra-O4:** Evaluate annual impacts associated with livestock grazing in relation to established standards and thresholds. (New)	**Gra-O1:** Manage grassland to maintain and/or enhance watershed conditions as identified in the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy* (Wallowa County 1999). (New)	**Gra-O1:** Compare proposed economic (e.g., livestock) and recreational human activities in the HCNRA to absence of such human activities regarding the degree to which such activities affect the ability of HCNRA riparian habitat to support native grassland-related wildlife and HCNRA forests to benefit form a dense native grass sward understory both in the short-term (e.g., within five years) and the long-term (e.g., ten to twenty years). **Gra-S1:** Estimate the potential role of HCNRA wetlands, stream systems, and springs, if undisturbed by human activities, to support grassland ecosystem native species, within the context of the bioregion. Map all wetlands, permanent and impermanent streams, and springs within the HCNRA. **Gra-S2:** Estimate the near natural rate of recovery of degraded riparian features in various settings within the HCNRA, utilizing best available scientific and HCNRA site-specific information, including information available within the various-aged allotments with no livestock and exclosures. **Gra-S3:** Estimate the potential role of the native grass sward understory of HCNRA forests, if undisturbed by livestock grazing and other human-related activities, to support cool fires, limit establishment of tree seedlings, increase soil permeability, reduce runoff and erosion, and increase soil litter.
Gra: Design range management programs for each allotment to achieve the above stated management objectives. (CMP) **Gra:** Establish and measure condition and trend transects on all allotments to monitor range conditions by 1985. (CMP) **Gra:** Conduct a survey of unique biological features and peculiarities, limitations, and productive potentials. Begin to incorporate findings in the range management programs for each allotment. (CMP) **Gra:** Recognize that wildlife utilize a portion of available forage and must be considered in the management and development of ranges to meet range management objectives. (CMP)	**Gra-S1:** On lands determined not to be suitable or capable for grazing by domestic livestock or determined to be suitable and capable but not meeting or moving toward a satisfactory condition, in a timely manner, grazing would not be authorized. (Public LURs, New) Authorized grazing refers to the determining of an estimated grazing capacity for a specified parcel of land and then permitting the grazing use of that capacity by domestic livestock under one or more types of grazing permits. This does not mean that livestock must be removed from an allotment or pasture or kept off of a specific parcel of land if a specific parcel is found to be neither meeting nor moving toward satisfactory condition, but rather indicates only	**Gra-S1:** On lands determined to be unsuitable or not capable for grazing by domestic livestock or determined to be in an unsatisfactory condition, the rangeland vegetation production for these lands would not be allocated to the allotment's carrying capacity. (Public LURs, New) However, domestic livestock may still be permitted. In most situations, livestock will not be authorized on lands determined to be unsuitable. In some situations incidental livestock use will be authorized on lands identified as unsuitable. In these situations, livestock will be removed before rangeland vegetation use exceeds 10% and soil disturbance exceeds 10% on lands determined to be unsuitable and authorizing incidental livestock use. (New)	Same as Alternative B except, Alternative W uses slightly different wording for riparian hardwood form class distribution. Refer to **Appendix I**. (New)	

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Gra: In Wilderness and Dispersed Recreation/Native Vegetation areas (MAs 4 and 9), stress animal number, season of use, and nonstructural distribution control methods to meet range management objectives. Do not attempt to eradicate nonnative grasses, but favor native species when possible in management activities. Do not introduce nonnative grasses. Where possible, emphasize biological methods to control noxious weeds. Permit fire to play a more important role in maintaining and improving range conditions. Insects, disease, and noxious weeds prevention and control by appropriate measures will be undertaken when necessary to protect timber and other vegetation on private and public lands. (CMP) **Gra:** In Forage and Dispersed Recreation/Timber Management areas (MAs 10 and 11), consider the use of all available range management techniques to achieve range management objectives. (CMP)	that no allocation of capacity from those less than satisfactory parcels of land would be placed under permit. (Public LURs, New) **Gra-S2:** Satisfactory condition* is determined through a comparison of the existing condition for a defined set of parameters as described in "a" through "d" below with an established norm (also shown in "a" through "d" below). The minimum satisfactory condition in which domestic livestock grazing would be authorized under grazing permit is as follows: (Public LURs, New) a. Range forage condition by stand (as defined in FS Handbook (FSH) 2209.21) is at least fair with an upward trend (or mid-seral status with an upward trend as an equivalent). (New) b. Soil stability rating by stand (as defined in FSH 2209.21) is at least fair with an upward trend. (New) c. Riparian hardwood age class distributions, where evaluated on key areas, show young age class plants equaling or exceeding the dead plus decadent age classes (as defined in FSH 2209.21). (New) d. Riparian hardwood form class distributions, where monitored on key areas, show no more than 10 percent and 35 percent, respectively, in heavy and moderate long-term browsing impact classes. (as defined in FSH 2209.21). (New) For stands in less than satisfactory condition related to rangeland vegetative condition, soil stability rating, riparian hardwood age class distribution, and/or riparian hardwood form class distribution,	**Gra-S2:** Satisfactory* condition will be evaluated during the allotment management planning process. The minimum condition and trend standards must be met for rangelands to be considered as satisfactory: (Public LURs, New) a. Rangeland vegetation in both upland and riparian habitats will be in a mid-seral** ecological status with an upward trend or higher condition based on PNC. (New) b. Soils, this includes soil surface conditions and soil stability, will be in a mid-seral** ecological status with an upward trend or higher condition based on PNC. (New) c. Riparian hardwood age class will be in a mid-seral** ecological status with an upward trend or higher condition based on PNC. (New) d. Riparian hardwood form class distributions show no more than 10 percent in heavy and 35 percent in moderate long-term browsing impact classes. (New) For those sites identified in unsatisfactory condition, management practices will be designed to improve ecological status to a satisfactory condition. For sites in a satisfactory condition, management practices will maintain or improve the ecological status. (New) Where rangeland resources are in an unsatisfactory condition livestock grazing may continue if the rate of recovery is within 70 percent of the natural rate of recovery (recovery on areas with similar ecological type and		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	domestic livestock grazing may be authorized providing the rate of recovery satisfactory conditions would be a minimum 70 percent of the rate of recovery if no livestock grazing were to occur. This would be determined through comparison with reference areas of similar site potential. (New) * The definition of "satisfactory condition" establishes the minimum standards for allocation of forage through the issuance of an appropriate grazing permit, but does not necessarily define site-specific desired conditions or recovery rates. Other resource goals, objectives, and standards and guidelines in this plan establish the desired conditions for management of the grasslands and understory herbaceous vegetation. (New) The "satisfactory condition" definition is required by the *Public LURs* (36 CFR 292) and relates only to the allocation of available grazing capacity under permit. (New) Examples of standards and guidelines that define acceptable conditions and recovery rates include PACFISH direction for riparian condition and recovery, Forest Plan wildlife standards and guidelines (Forest Plan, PACFISH)	status without livestock grazing. (New) The definition of "satisfactory condition" establishes the minimum standards for determining carrying capacity, but does not necessarily define site-specific desired conditions or recovery rates. Other resource goals, objectives, and standards and guidelines in this plan establish the desired conditions for management of the rangeland resources. (New) The "satisfactory condition" definition is required by the *Public LURs* (36 CFR 292) and relates only to the allocation of available carrying capacity. (New) The rangeland resource inventory will identify the carrying capacity for a land use area. (New) Examples of standards and guidelines that define acceptable conditions and recovery rates include PACFISH direction for riparian condition and recovery, Forest Plan wildlife standards and guidelines. (Forest Plan, PACFISH). ** The mid-seral ecological status will be considered equal to the range condition of fair with an upward trend.		
	Gra-S3: Allotment management plans (AMPs) would establish site-specific rates of recovery to achieve the goals for ecological status, soil conditions, and riparian management objectives, in conjunction with other applicable resource standards and guidelines contained in this management plan. The AMP schedule would be updated and implemented in accordance with Public Law 104-19 (Rescission Bill) Section 504.	**Gra-S3:** Allotment management plans (AMPs) would establish site-specific rates of recovery to achieve the goals for ecological status, soil conditions, and riparian management objectives, in conjunction with other applicable resource standards and guidelines contained in this management plan when determining appropriate livestock stocking levels. (New) **Gra-G1:** Emphasize enhancement and/or restoration of potential native vegetation. (New)	**Gra-S3:** Allotment management plans (AMPs) would establish site-specific rates of recovery to achieve the goals for ecological status, soil conditions, and riparian management objectives, in conjunction with other applicable resource standards and guidelines contained in this management plan. The AMP schedule will be updated in accordance with Public Law 104-19 (Rescission Bill)	**Gra-S4:** Fully examine and consider a no-livestock grazing alternative in all planning documents regarding livestock grazing. **Gra-O2:** Base planning for human-related activities in the HCNRA on explicit consideration of their beneficial and detrimental effects on (a) native grassland structure and functions; (b) forest structure and functions that are associated with the condition of the grassland understory; and (c) re-establishment of natural fire

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Gra-G1: Emphasize enhancement of native vegetation. (New) **Gra-G2:** Incorporate management considerations in *Plant Associations of the Wallowa-Snake Province* (Johnson and Simon 1987) to determine the appropriate timing, intensity, duration, and frequency of grazing use by community type. Likewise, use *Mid-Montane Wetlands Classification of the Malheur, Umatilla, and Wallowa-Whitman National Forests* (Crowe and Clausnitzer 1997) until a guide to the Snake River area is completed. (New) **Gra-S4:** Include wildlife, recreation stock, PF, ecological goals, and outfitter and guide forage use when setting range management objectives. (New) **Gra-S5:** Implement grazing management practices to minimize the potential for transport of invasive plant seeds, or creation of habitats suitable for establishment of invasive species. Practices could include restrictions on timing of grazing ensuring that cattle moving from weed infested areas are held and flushed to avoid seed transport, implementation of forage utilization standards to ensure healthy protective plant cover, etc. (New)	**Gra-G2:** Incorporate management considerations in *Plant Associations of the Wallowa-Snake Province* (Johnson and Simon 1987) to determine the appropriate timing, intensity, duration, and frequency of grazing use by community type. Likewise, use *Mid-Montane Wetlands Classification of the Malheur, Umatilla, and Wallowa-Whitman National Forests* (Crowe and Clausnitzer 1997) or other FS approved guides, score cards or keys. (New) **Gra-S4:** When determining carrying capacity and range management objectives during the AMP process and, include other uses such as wildlife, threatened and endangered species, recreation stock, PF, ecological goals, and outfitter and guide activities as specified in the *HCNRA Act.* (New) **Gra-S5:** Implement grazing management practices to minimize the potential for transport of invasive plant propagates or seeds, or creation of habitats suitable for establishment of invasive species. (New) **Gra-G3:** During the allotment planning process evaluate periodic rest and deferred rotations grazing systems. (New)	Section 504. (New) **Gra-G1:** Emphasize enhancement of native vegetation. (New) **Gra-S4:** Include wildlife, recreation stock, and outfitter and guide forage use when setting range management objectives. Also, include PF ecological goals when setting range management objectives. (New)	frequencies. **Gra-S5:** All proposals to permit or undertake an activity will include an estimate of each alternative's comparative potential to protect, restore, retard recovery of, or degrade native grassland habitat, wildlife, and functions; associated forest structure and functions; and fire frequencies. **Gra-O3:** Establish a protocol for determining that livestock grazing within a given allotment is compatible with maintaining or allowing significant recovery toward healthy communities of (a) native grassland plant species; (b) uncommon native wildlife that are dependent in part or wholly on native grasslands; and (c) forest understory native grasses and forbs. **Gra-O4:** Prepare draft goals for HCNRA grasslands, including concrete, measurable goals for: (a) Presence and condition of native grassland plant species historically present in the HCNRA; (b) Presence and population structure of native wildlife species historically present in and dependent in part or wholly on HCNRA native grasslands; (c) Native grassland riparian habitat; (d) Native forest understory grass swards; (e) Biological crusts; and (f) Soil conditions. Within a year of public issuance of the draft goals, prepare a final goals document for HCNRA grassland habitat.
	Gra-S6: Implement Forest Plan utilization standards (pages 4-52 and 53). (Forest Plan) The following maximum upland forage (grass/forb) utilization standards for fall, winter, and spring may be applied once resource objectives are met. Maximum browse standards would not change from those listed in the Forest Plan. Based on plant phenology, climate, and plant responses to grazing, there are three basic periods to manage: fall/winter, early spring, and late spring (in application, the following standards may be converted to allowable stubble height standards): (New)			**Gra-S6:** Prepare and field-test methods by which the FS, a permittee, or ecologically informed member of the public can estimate, with good inter-rater agreement, whether a given allotment is moving toward the HCNRA grasslands habitat goals (refer to Grasslands note 1).

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Fall/Winter Standards This period basically begins when all key perennial forage plants have achieved dormancy. It runs through the dormant period and ends just prior to the initiation of new growth on the key cool season perennial forage species in the spring. In very general terms, this often begins in mid to late October and runs through February, March, or April depending on the elevation, aspect and the weather patterns for a given year. (New) Forage utilization standards for this period would be set at 60 percent on the key species (on a site-specific basis). This would be based on a percent of the weight removed from the total annual growth resulting from the previous growing season. (New) Adjustments to this utilization standard may be made based on other plant physiology needs to respond to issues such as visual quality, soils, wildlife, etc. (New)	Fall/Winter Standards This period basically begins when all key perennial forage plants have achieved dormancy. It runs through the dormant period and ends just prior to the initiation of new growth on the key cool season perennial forage species in the spring. In very general terms, this often begins in mid to late October and runs through February, March, or April depending on the elevation, aspect and the weather patterns for a given year. (New) Maximum forage utilization standards for this period would be set at 60 percent on the key species (on a site-specific basis). This would be based on a percent of the weight removed from the total annual growth resulting from the previous growing season. (New)	Same as Alternative B.	**Gra-O5:** Beginning June 2002, issue permits for livestock grazing only upon preparation of a draft and final measurable goals statement for that allotment based on the potential of that site to move toward the HCNRA grassland habitat goals (refer to Grasslands note 2). **Gra-S7:** A finding of compatibility of a given permit for livestock grazing will include provisions that will: (a) provide for measurable movement toward HCNRA grassland habitat goals; (b) provide for near natural rate of recovery of degraded riparian features (refer to Grassland note 3); (c) prevent degradation of riparian systems, regardless of whether particular streams, wetlands, or springs currently are in excellent condition and (d) prevent the introduction of exacerbation of invasion of nonnative grassland species.
	Early Spring Standards Early spring is defined as that period when the perennial cool season forage plants initiate growth and begin shoot elongation. It extends through the period of maximum carbohydrate use and the beginning of carbohydrate storage. The end of this period is determined by soil moisture. It ends prior to the time that soil moisture is expected to become limiting to the extent that essentially full re-growth cannot be ensured. (New) Forage utilization standards for this period would be set at 60 percent of current key cool season species forage production (on a site-specific basis). This is determined on an air-dried weight basis of total current annual production occurring until	Early Spring Standards Early spring is defined as that period when the perennial cool season forage plants initiate growth and begin shoot elongation. It extends through the period of maximum carbohydrate use and the beginning of carbohydrate storage. The end of this period is determined by soil moisture. It ends prior to the time that soil moisture is expected to become limiting to the extent that essentially full re-growth cannot be ensured. (New) Maximum forage utilization standards for this period would be set at 60 percent of current key cool season species forage production (on a site-specific basis). This is determined on an air-dried weight basis of total current annual		**Gra-S8:** When preparing an individual allotment's goals statement, identify and describe "hot spots" of damage or degradation within an allotment rather than "averaging" grassland conditions within the allotment. Provide for altered management within the next Annual Operating Permit and the next AMP for all hot spots. If such hot spots do not measurably and significantly improve within four years, place the entire allotment in "hot spot" status, and provide for altered management in each Annual Operating Permit that cannot fail to improve the hot spots, until the hot spots have been improved. If this management is unable to improve the hot spots within two more years, the permit must be canceled (refer to Grassland note 4).

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	livestock are removed. Further, all livestock would be removed from the unit based on ensuring that adequate soil moisture exists at the time of removal to provide for essentially full re-growth. Additional monitoring would be conducted on a spot check basis following termination of annual growth for the summer to document that re-growth was achieved. (New) Browse utilization standards for shrubs are not normally needed during this period as the browsing animals (both domestic and wild) focus on the highly palatable and nutritious green growth of the forage species. If they are needed the existing Forest Plan standards would apply. (New)	production occurring until livestock are removed. Further, all livestock would be removed from the unit based on ensuring that adequate soil moisture exists at the time of removal to provide for essentially full re-growth. Additional monitoring would be conducted on a spot check basis following termination of annual growth for the summer to document that re-growth was achieved. (New)		
	<u>Late Spring Standards</u> Late spring is defined as that period when the key perennial cool season forage plant growth is still occurring but soil moisture is beginning to limit growth. Livestock removal is not planned to occur during the time when assurance can be made that essentially full re-growth would occur. (New) Utilization standards for both forage and browse use for this period would be the same as established by the Forest Plan for the standard summer season grazing. (New)	<u>Late Spring Standards</u> Late spring is defined as that period when the key perennial cool season forage plant growth is still occurring but soil moisture is beginning to limit growth. Livestock removal is not planned to occur during the time when assurance can be made that essentially full re-growth would occur. (New) Utilization standards for both forage and browse use for this period would be the same as established by the Forest Plan for the standard summer season grazing. (New)		
	Gra-G3: During the AMP process, analyze effects and management of both wildfire and PF in conjunction with domestic livestock grazing to achieve grassland goals, objectives, standards, and guidelines. (New)			**Gra-S9:** When preparing an individual allotment's goals statement, provide separate analysis for riparian habitat for riparian habitat within the allotment As livestock grazing damage is often especially severe within riparian habitat. If noted problems in riparian habitat conditions do not recover at near natural rates of recovery for two years in a row (which requires annual monitoring), place the entire allotment in "riparian problem" status, and provide for altered management in each Annual Operating Permit that cannot fail to improve the riparian habitat, until the riparian habitat has been improved. If
	Gra-G4: Where appropriate, plan and implement restoration projects to reintroduce and/or increase existing native grass, forb, shrub, or tree species on those sites capable of supporting them to improve the health and sustainability of the Wallowa-Snake province grasslands, where current ecological conditions are early to mid-seral and the landscape setting is outside HRV. (New)	**Gra-G4:** Where feasible and desirable, plan and implement restoration projects to improve the health and sustainability of HCNRA grasslands, where current ecological conditions are mid- or earlier-seral status. (New)	Same as Alternative B.	

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				this management is unable to significantly improve the riparian habitat within two more years, the permit must be canceled (refer to Grassland note 3)
	Gra-G5: Outside Wilderness, after fire or other disturbances, facilitate the natural recovery of vegetation as much as possible. Analyze the burned areas on a site-by-site basis and determine revegetation needs based on the probability of natural recovery in a reasonable amount of time, erosion potential, the likelihood for weed invasion, and native seed availability and cost. Use native, or in areas outside of Wilderness, short-lived, introduced species when natural recovery would be too slow to achieve desired goals or when there is an immediate need for soil protection. Rest pastures from domestic grazing, when necessary, to facilitate natural recovery after fire. (New)	***Note to the reader: Refer to the Fire section in this appendix for post-fire management direction.***	**Gra-G5:** After fire or other disturbances, facilitate the natural recovery of vegetation as much as possible. Seed native or adaptable introduced species when natural recovery is not feasible timely, or as needed for soil protection. (New)	**Gra-S10:** Annually, the permittee will prepare a publicly reviewable draft finding of allotment conditions and movement toward the allotment goals, and the HCNRA will issue a final finding, responsive to reasonable comments of the public, the permittee, and FS scientists. After 2002, no multi-permit will be issued without a finding of ecosystem compatibility, and no annual operating permit will be issued if more than one year has passed without filing a finding of compatibility that is responsive to reasonable comments of the public, the permittee, and FS and other scientists (refer to Grassland note 5). **Gra-O6:** Prohibit livestock grazing in degraded riparian areas (including all riparian habitat noted as problematic in any livestock allotment) until improvement in riparian area conditions have been documented for two years in a row.
	Gra-S7: Range improvements would be designed and located to minimize their impact on wilderness, scenic, heritage, fish, wildlife, unique botanical, and other resources. (Public LURs, New) **Gra-G6:** Encourage the Payette and Nez Perce National Forests to adjust allotment boundaries, for those allotments containing HCNRA lands, to the HCNRA boundary line as opportunities arise. (New)			**Gra-S11:** When preparing all AMPs and annual operating plans (AOPs), explicitly incorporate the rapidly-accruing scientific information regarding impacts of livestock grazing on riparian areas. **Gra-G1:** Fencing is the only alternative to full-time riders or livestock exclusion in order to protect riparian areas. A mix of fencing and to riders (to check on condition and effectiveness of fencing) is best. Fences will be placed at upland edges in order to encompass the entire riparian area. **Gra-S12:** Prohibit confined feeding operations within riparian habitat. **Gra-O7:** Identify at least one scientifically adequate control area (i.e., currently free of livestock grazing) that

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				is comparable with each livestock grazing allotment in terms of diversity in soil, elevation, slope, and proximity to water. **Gra-S16:** No allotment permit may be renewed without a new AMP; each allotment permit must be renewed every ten years. **Gra-S17:** Vegetation manipulation for the primary purpose of benefiting livestock or lethal control of indigenous predators of livestock and competing indigenous herbivores such as rodents and grasshoppers, is prohibited. **Gra-O8:** Livestock grazing shall not prevent the maintenance of well-distributed, viable populations of indigenous wildlife, or present a significant risk of disease transmission to indigenous wildlife, or alter habitat to such an extent that the geographic range of a wildlife species is reduced. Livestock grazing shall also not be allowed to adversely affect normal relationships between predators and prey, parasites and hosts (such as cowbirds and neotropical migratory songbirds), specific pollinators and dependent plants, or specific dispersal mechanisms and dependent indigenous organisms. **Gra-S18:** Domestic sheep shall not graze within the HCNRA, since domestic sheep pose the risk of *Pasteurella* transmission and bighorn sheep death. **Gra-O9:** Account for and explain HCNRA costs and receipts associated with livestock grazing. **Gra-S19:** Prepare an annual financial report on livestock grazing within the HCNRA as distinct from other areas of the WWNF. All livestock grazing-

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				related expenses and income will be reported separately, including: Preparation of AMPs, and AOPs; ▪ Monitoring for compatibility with *HCNRA Act* 7(1-6); ▪ Range improvements; Costs of noxious weed surveys, reduction, and eradication attributable to livestock grazing; ▪ Attributable costs of protection and restoration of special (i.e., endangered, sensitive, threatened, indicator, rare, endemic, or declining) plant and animal species affected by livestock grazing; ▪ Attributable costs of riparian habitat monitoring, protection and restoration; ▪ Enforcement of livestock grazing regulations; ▪ Income from livestock grazing permits; ▪ All other sources of income for livestock grazing-related activities. **Gra-S20:** Permit fees will include costs of preparation of a botanic survey for extent and successional stages of native and nonnative plants within the allotment every five years. **Gra-S21:** Prepare a similar annual financial report on allotments which do not have livestock within the HCNRA as distinct from other areas of the WWNF. All expenses will be reported, including activities to which the costs appear attributable (e.g., noxious weed control due to spreading of noxious weeds by motorized vehicles, nonmotorized recreation; or protection of special species that are rare because the area was formerly grazed by livestock): ▪ Costs of noxious weed surveys, reduction, and eradication; ▪ Costs of protection and restoration of special plant and animal species; and
				▪ Costs of riparian habitat

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				monitoring, protection and restoration. **Gra-S22:** Prepare an analysis of conditions and activities that facilitate the presence and spread of cheatgrass and *Ventanata dubia* within the HCNRA and options for reduction and elimination of cheatgrass within the HCNRA. This analysis, where appropriate, should draw on extensive documentation of conditions that favor cheatgrass, and on the more meager data on successful containment and reduction of cheatgrass invasions in the Intermountain West. **Gra-O11:** Prepare and implement grassland drought procedures and implementation triggers, whereby grazing periods are restricted or livestock are vacated from the allotment during drought conditions, prior to drought-exacerbated plant grazing damage. **Gra-O3:** Identify key HCNRA grassland research and monitoring needs.

Vacant Allotments and Administrative Horse Pastures				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
	***Note to the reader*: Separate standards and guidelines for managing the disposition of currently vacant grazing allotments have been developed for each of these alternatives. The variations proposed in alternatives B, E-modified and W are based on a preliminary determination that affected lands in vacant allotments contain suitable and capable range which could be used to provide increased management flexibility, to improve livestock distribution and management, and to provide a cost-effective forage resource for permitted livestock and/or the administrative pack-and-saddle stock.**			
Gra: Vacant allotments would be analyzed on a priority basis following AMP processes. Vacant allotments may be closed in total, closed in part, incorporated in total or part with another active allotment, or left wholly or partially vacant. Priorities would be established based on the most critical need to ensure compatibility with Section 7 objectives of the *HCNRA Act*. (Forest Plan, CMP)	**Gra-S7:** Management direction for the 11 vacant allotments is as follows: Options, on an allotment-by-allotment basis, include: (New) ▪ Closed in total; ▪ Closed in part; ▪ Incorporation in total or part with another active allotment (with actual management decisions and stocking deferred until a site-specific NEPA decision is made); ▪ And/or leave vacant in total or in part. If the decision is made to incorporate all or part of a vacant allotment into an active allotment, the kind of livestock permitted would also be converted to that of the active allotment. (New) Where an allotment or a portion of an allotment is closed, no grazing permit would be issued and the allotment, or portion of the allotment, would cease to exist as a parcel of land where livestock grazing may be permitted, until a subsequent NEPA decision may decide otherwise. (New) Where an allotment or portion of one of these vacant allotments is incorporated as part of another active allotment, the portion to be added would not be stocked, and	**Gra-S7:** Where an allotment or a portion of an allotment is closed, manage those lands as unsuitable for permitted domestic livestock use. Allow recreational or permitted outfitter and guide activities when properly administered. (New) Where an allotment or portion of a vacant allotment is incorporated as part of another active allotment, the portion to be added would not be stocked until an AMP process is completed. (New)	**Gra-S7:** Management direction for the 11 vacant allotments is as follows: (New) Ungrazed Control Areas: The FS is establishing "islands without livestock grazing" to have comparison sites within the HCNRA that are not allocated for livestock grazing. This is to allow for comparisons, long term, what the effect of livestock grazing is having on the landscape. (New)	**Gra-S13:** Do not reintroduce livestock (i.e., cattle horses, or domestic sheep) into allotments that are not grazed by domestic livestock as of December 1998 (refer to Grassland note 5). **Gra-S14:** Match plots on allotments with no livestock with comparable plots on livestock grazing allotments as controls to study the effects of livestock grazing and absence of livestock grazing on native grassland and forest processes, annual production, species composition, and recovery. Provide fenced wildlife exclosures within these no-livestock allotment plots. These exclosures must be of sufficient size and structure so as to provide controls on the effects that wildlife grazing (as opposed to livestock grazing) has on the native grasslands. **Gra-S15:** Post allotments with no livestock with signs so that HCNRA. Visitors will more readily report the presence of any trespass livestock

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	decisions regarding management of the combined allotments would not be made until a site-specific analysis and NEPA decision has been completed. (New) The analysis and NEPA decision would address the following: (New) ▪ Amount and spatial distribution of capable and suitable range ▪ Vegetation and soil condition and trend ▪ Ecological status and estimated HRV ▪ Compatibility with the goals, objectives, standards, and guidelines of the CMP ▪ Numbers, seasons of use, kind and class of livestock to be permitted ▪ Management system and practices to be implemented on the combined allotment ▪ TES species surveys and management needs			
Cattle & Horse (C&H) Allotments				
	Note to the reader: ***Approximate acreages shown below are derived from GIS. Actual boundaries of allotments incorporated into other allotments would use natural topography and minimize other resource concerns. Actual acreages therefore may vary as refinements are implemented.***			
	071 Jim Creek: Of this 12,490 acre allotment, 12,490 acres would be used as an administrative horse pasture. (New)	**071 Jim Creek:** Of this 12,490 acre allotment, 12,178 acres would be used as an administrative horse pasture and 312 acres would be closed. (New)	**071 Jim Creek:** Of this 12,490 acre allotment, 12,490 acres would be used as an administrative horse pasture. (New)	
	167 Big Canyon: This 8,045 acre allotment would be incorporated in total into the Pittsburg Allotment. (New)	**167 Big Canyon:** This 8,045 acre allotment would be closed. (New)	**167 Big Canyon:** This 8,045 acre allotment would be incorporated in total into the Pittsburg Allotment. (New)	
	183 Cache Creek: Of the 8,245 acres in this allotment, 2,197 acres would be used as an administrative horse pasture (Jim Creek); 2,193 acres would be allocated to the Lost Cow Allotment with actual stocking	**183 Cache Creek:** Of the 8,245 acres in this allotment, 2,197 acres would be used as an administrative horse pasture (Jim Creek) and 6,048 acres would be closed. (New)	**183 Cache Creek:** Of the 8,245 acres in this allotment, 2,197 acres would be used as an administrative horse pasture (Jim Creek); 2,193 acres would be allocated to the	

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	and management decisions to be deferred until site-specific analyses and NEPA decisions are reached for the affected allotment; and 3,855 acres would be closed. (New)		Lost Cow Allotment with actual stocking and management decisions to be deferred until site-specific analyses and NEPA decisions are reached for the affected allotment; and 3,855 acres would remain as an ungrazed control. (New)	
	082 Cherry Creek: Of the approximately 21,924 acres in this allotment, 1,915 acres would be used as an administrative horse pasture (Jim Creek); 14,962 acres would be allocated to other allotments (Toomey 5,527 acres, and Chesnimnus 9,435 acres). The remaining 5,047 acres of the Cherry Creek Allotment would be closed. (New)	**082 Cherry Creek:** Of the approximately 21,924 acres in this allotment, 1,720 acres would be used as an administrative horse pasture (Jim Creek). The remaining 20,204 acres of the Cherry Creek Allotment would be closed. (New)	**082 Cherry Creek:** Of the approximately 21,924 acres in this allotment, 1,915 acres would be used as an administrative horse pasture (Jim Creek); 14,962 acres would be allocated to other allotments (Rhodes Creek 5,527 acres, and Chesnimnus 9,435 acres. The remaining 5,047 acres of the Cherry Creek Allotment would remain as an ungrazed control. (New)	
	108 Hope Creek: This entire 2,207 acre vacant allotment would be allocated to other active allotments (Blackmore 1,324 acres and Saddle Creek 883 acres) with actual stocking and management decisions to be deferred until such time as site-specific analyses and NEPA decisions are reached for the affected allotment. (New)	**108 Hope Creek:** This 2,207 acre allotment would remain vacant until an AMP process is completed. (New)	**108 Hope Creek:** The 2,207 acres in this allotment would be incorporated in its entirety into Dunn Creek Allotment with actual stocking and management decisions to be deferred until such time as site-specific analyses and NEPA decisions are reached for the affected allotment. (New)	
	118 Turner Creek: This entire 1,434 acre vacant allotment would be allocated to the Dunn Creek allotment with actual stocking and management decisions to be deferred until site-specific analyses and NEPA decisions are reached for the affected allotment. (New)	**118 Turner Creek:** This 1,434 acre allotment would remain vacant until an AMP process is completed. (New)	**118 Turner Creek:** This entire 1,434 acre allotment would be allocated to the Chalk Creek allotment with actual stocking and management decisions to be deferred until site-specific analyses and NEPA decisions are reached for the affected allotment. (New)	
	191 Canyon: Of the approximately 80,554 acres in this allotment, 34,247 acres would be allocated to other allotments (Cayuse 24,446 acres, Lone Pine 5,849 acres, and Cow Creek 3,952 acres), with actual stocking and management decisions to be deferred until site-specific analyses and NEPA decisions are reached for the affected allotment.	**191 Canyon:** Of the approximately 80,554 acres in this allotment, 1,988 acres would be used as an administrative horse pasture. The remaining 78,566 acres of the Canyon Allotment would be closed. (New)	**191 Canyon:** Of the 80,554 acres in this allotment, approximately 60,451 acres would be allocated to other allotments (Cayuse 25,005 acres, Lone Pine 31,494 acres, and Cow Creek 3,952 acres), with actual stocking and management decisions to be deferred until site-specific	

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Approximately 1,988 acres would be used as an administrative horse pasture. The remaining 44,319 acres of the Canyon Allotment would be closed. (New)		are reached for the affected allotment. Approximately 1,988 acres would be used as an administrative horse pasture. The remaining approximately 18,115 acres of the Canyon Allotment would be converted to an ungrazed control. (New)	
Sheep & Goat (S&G) Allotments				
	084 Temperance-Snake: This allotment of approximately 42,825 acres would remain vacant. (New)	**084 Temperance-Snake, 162 Mud Duck, and 164 Sheep Creek:** These allotments of approximately 130,491 acres would be closed. (New)	**084 Temperance-Snake:** This allotment of approximately 42,825 acres would remain vacant. (New)	
	162 Mud Duck: The HCNRA portion of this allotment (approximately 47,020 acres) would remain vacant. (New)		**162 Mud Duck:** The HCNRA portion of this allotment (approximately 47,020 acres) would remain vacant. (New)	
	Curren Hill: This 2,116 acre allotment would remain vacant. (New)	**Curren Hill:** This 2,116 acre allotment would be closed. (New)	**Curren Hill:** This 2,116 acre allotment would remain vacant. (New)	
	164 Sheep Creek: This allotment contains approximately 40,646 acres. This allotment would remain vacant. (New) As per the *Proposal to Terminate Domestic Sheep Grazing on Portions of the Hells Canyon National Recreation Area* (USDA 1995), and agreements reached with the interested parties at that time, these three allotments would remain vacant sheep and goat allotments during this planning cycle pending the potential development of a vaccine (for either domestic or wild sheep) that would then allow for site-specific NEPA decisions to be made regarding the potential restocking of these allotments.		**164 Sheep Creek:** This allotment contains approximately 40,646 acres. This allotment would remain vacant (New) As per the *Proposal to Terminate Domestic Sheep Grazing on Portions of the Hells Canyon National Recreation Area* (USDA 1995), and agreements reached with the interested parties at that time, these three allotments would remain vacant sheep and goat allotments during this planning cycle pending the potential development of a vaccine (for either domestic or wild sheep) that would then allow for site-specific NEPA decisions to be made regarding the potential restocking of these allotments.	
Administrative Horse Pastures				
	Gra-O1: Administrative horse pastures would exist within the HCNRA for the purpose of maintaining pack and saddle stock. These pastures would be maintained to provide high quality pasture, well-maintained facilities, late to mid-seral vegetative status with a stable trend or better, and a visual appearance that would reflect well on management of the HCNRA. (New)		**Gra-S7: Administrative allotments:** The WWNF owns approximately 75 horses/mules (including the southern division). The	

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Gra-S1: Forest Plan forage utilization standards would be applied on all administrative horse pastures. (New) **Gra-G1:** Maintain administrative horse pastures to provide a very well-managed setting. Manage pastures to promote and maintain late to mid-seral native vegetation with a generally lightly grazed appearance. (New) **Gra-G2:** Where pastures currently contain nonnative forage species due to past ownership or management, focus on management that would promote the recovery and replacement by native species. (New) **Gra-G3:** Refine boundaries of administrative horse pastures to provide for minimizing of conflicts with between active grazing allotments, recreation activities, and to ensure compatibility with the *HCNRA Act* Section 7(1-7). (New)	**Gra-S1:** Forest Plan forage utilization standards would be applied on all administrative horse pastures. (New) **Gra-G1:** Develop management plans that would allow for the maintenance of administrative horse pastures to provide a very well-managed setting in compliance with the *HCNRA Act*. Manage pastures to promote and maintain late to mid-seral status with an upward trend for potential natural communities. (New) **Gra-G2:** Where pastures currently contain nonnative rangeland vegetation, manage for recovery of native species. (New) **Gra-G3:** Refine boundaries of administrative horse pastures to minimize conflicts between other uses and to ensure compatibility with the *HCNRA Act* Section 7(1-7). (New)	wintering options for these livestock are; to feed hay in the Wallowa Valley or winter them out on a winter allotment. The most cost effective method is to winter them on a winter allotment which will acclimatize the horses to the canyon terrain and habitat for spring use. An administrative winter allotment would be formed by combining the Jim Creek allotment and portions of the Cherry Creek and Cache Creek allotments. (New) One administrative pasture is near Memaloose and is used to maintain the stock during summer. This minimizes the need to haul stock up and down the Hat Point Road. The use of this allotment should be continued. (New)	
Water Use Management and Cultivated Areas				
Cul: Continue to manage irrigated areas at Cache Creek Ranch, Thorn Creek Guard Station, Dug Bar Ranch, Pittsburg Ranch, and Temperance Creek Ranch in Oregon, and Circle C Ranch, Kirkwood Historic Ranch, and Sheep Creek Ranch in Idaho within developed recreation and administrative site boundaries pursuant to existing CMP wildlife and range management direction (pages 14, and 20 through 21). (CMP, Forest Plan)	***Note to the reader: The following direction is for water use management and associated irrigated land at eight sites within the HCNRA.***	***Note to the reader: The following direction would supplement Forest Plan management direction (page 4-26).***	***Note to the reader: The following direction is for water use management and associated vegetative cultivation.***	***Note to the reader: The following direction would supplement Forest Plan management direction (page 4-26).***
		Wat-O1: Maintain existing water rights and obtain new water rights to meet current and foreseeable water needs for HCNRA facility and resource management objectives. (Forest Plan, FSM 2541) **Wat-S1:** Maintain water use rights granted by the State of Oregon through exemptions, permits	***The following direction is for water use management and associated vegetative cultivation.***	**Goal:** Existing water rights will be maintained and water will be used in a manner compatible with the protection and restoration of aquatic habitat and native vegetation. **Wat-O1:** Maintain existing water rights for future management opportunities on applicable sites. Use appropriate planning processes

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Although the major focus is on irrigated hay land, the water rights for these ranches can include domestic use, livestock use, fire protection, and irrigation of orchards, gardens, and lawns. ***Other sites in the HCNRA have water rights, but are not discussed here because they do not involve irrigation of sizeable tracts of cultivated vegetation.*** **Cul-O1:** Maintain existing water rights for future management opportunities on applicable sites. Refer to **Table C-7: Facilities with Water Rights or Water Developments**. Use the administrative site planning process (Forest Plan, page 4-92) or AMP planning process, as appropriate, to make long-term determinations of use, need, or abandonment. (Forest Plan) **Cul-S1:** Use water for the purposes described in the water right to avoid forfeiture by nonuse or abandonment until determinations are made through site planning. (New) **Cul-S3:** Install and maintain fish screens and fishways at irrigation diversions on fish-bearing streams. (New) **Cul-S2:** Comply with Oregon Water Resources Department (OWRD) water use reporting requirements	certificates, and court decrees; also maintain unadjudicated vested rights. Maintain water use rights granted by the State of Idaho through exemptions, permits, and licenses; also maintain water uses described on claims submitted in the Idaho Snake River Adjudication. Maintain reserved water rights claimed under federal law. Refer to **Tables C-7a** and **C-7b: Facilities with Water Rights or Water Developments** that list water rights and water developments appurtenant to major facilities; information for approximately 600 spring and reservoir developments used for livestock, wildlife, and forest management are not included in these tables). (New) **Wat-S2:** Comply with water use limitations described on existing water rights, including water source, authorized location of point of diversion and place of use, diversion rate or storage capacity, annual duty, and period and type of use, as required by State of Oregon and Idaho water laws. (New) **Watl-S3:** Exercise water rights obtained under State of Oregon and Idaho laws at least one year in each five-year period to avoid water right forfeiture under state law due to nonuse. (New) **Wat-S4:** Comply with state water use reporting requirements including the State of Oregon requirements to install, and maintain water measurement devices and to monitor and report monthly water use for diversions of at least 0.1 cfs. Refer to **Tables C-7a** and **C-7b: Facilities with Water Rights or Water Developments**. (New) **Wat-S5:** Install and maintain fish screens and fishways at stream diversions on fish-bearing streams in compliance with State of Oregon and	***Although the major focus is on field irrigation, the water rights can include domestic use, livestock use, fire protection, and irrigation of orchards, gardens, and lawns.*** Same as Alternative A. **Cul-O1:** Maintain existing water rights. (Forest Plan, FSM 2541) **Oregon Side** **Cul-S1:** Use water for the purposes described in the water rights at least one year in a five-year period to avoid forfeiture by nonuse (ORS 540.610). (New) **Cul-S2:** Comply with Oregon Water Resources Department (OWRD) water use reporting requirements, including installation, maintenance, and monitoring of OWRD-approved water measurement devices for diversions of 0.1 cubic feet per second (cfs) or larger (OAR 690-85). (New) **Cul-S3:** Install and maintain fish screens and fishways at irrigation diversions on fish-bearing streams in compliance with Oregon Department of Fish and Wildlife (ODFW) requirements (ORS 498 and 509). (New)	(e.g., Forest Plan and AMP processes) to make long-term determinations of use, need, or abandonment **Wat-S1:** Use water for the purposes described in existing water rights at least one year in a five-year period to avoid forfeiture by nonuse until determinations are made through site planning. **Wat-S2:** Consider, on a site-by-site basis, and through such planning processes as the Forest Plan and AMP, the feasibility of (1) lease agreements for converting water rights to instream water rights for specified time periods; and (2) use of water to irrigate fields for growing native plants from local seed for use in restoration projects **Wat-G1:** Plan, where feasible, for use and transfer of water rights in order to restore native plants to flat fields at Dug Bar Ranch, Cache Creek, Circle C Ranch, Temperance Creek, and Pittsburg Administrative Site. Local seed would be collected for growing native species, in order to provide seed for use in restoration projects. **Wat-S3:** Minimize use of water rights for irrigating livestock pasture (e.g., at Thorn Creek Guard Station and Kirkwood Historic Ranch) or exotic lawns (e.g., at Kirkwood Historic Ranch and Pittsburg Administrative Site) to that needed for resource protection; maximize use for restoring native plant species and aquatic habitat in the HCNRA.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	including installation, maintenance, and monitoring of OWRD-approved water measurement devices for diversions of 0.1 cubic feet per second (cfs) or larger (OAR 690-85). (New) ***Note to the reader: The following guidelines are not requirements but opportunities, and would need further site-specific analysis for the development of administrative site plans compatible with the goals, standards, and guidelines in the existing CMP.*** **Cul-G1 for Cache Creek Ranch:** Continue to irrigate areas covered by the water right in accordance with the pending transfer application T-7427 (on file at National Forest Headquarters in Baker City, Oregon). (New) **Cul-G3 for Dug Bar Ranch:** Authorize the Lone Pine Allotment permittee to continue to use the 25-acre irrigated field for hay production or pasture. (New) **Cul-G4 for Pittsburg Ranch:** Continue to irrigate areas covered by the water right at the administrative site. (New) **Cul-G5 for Temperance Creek:** Consider submitting proof of the undetermined vested water right to the state. Also, consider completing the final proof survey for the water right permit. (New) **Cul-G6 for Circle C Ranch:** Continue to use the Kurry Creek diversion, ditches, and pond to irrigate the field near the ranch house. (New)	Idaho laws. (New) **Wat-S6:** Obtain new water rights through State of Oregon or Idaho water laws before beginning construction of new water diversion and transmission facilities and/or before commencing new diversion of water, or before changing the point of diversion, place of use, period of use, type of use, or enlarging the diversion rate or storage capacity for existing water developments, if the new or altered water uses are not exempt under state law or do not qualify as federal reserved water rights. (New) **Wat-G1:** Consider using water management opportunities at cultivated field sites to maintain and/or enhance use of existing water rights. Consider other water management tools such as temporary transfer to instream use, and permanent transfer to a different facility, source, point of diversion, place of use, and/or nature of use. (New) **Wat-G2:** Develop evidence to support claims to pre-water code vested water rights at historic ranches in HCNRA. Prepare and submit claims, as needed, to the States of Oregon and Idaho to maintain these rights. (New) **Wat-G3:** Consider developing a long-term water resource management strategy for HCNRA that addresses consumptive and nonconsumptive water rights, uses, and requirements, including instream flow needs. Use this strategy to guide update of existing and writing of new site plans. Consider policies, objectives, guidelines and standards in the State of Oregon's Grande Ronde Basin Program (OAR 690-508), Powder Basin Program (OAR 690-509), Middle Snake River Basin Program (OAR 690-520), and Public	**Idaho Side** **Cul-S4:** Use water for the purposes described in the water rights at least one year in five to avoid forfeiture by nonuse (Idaho Code 42-222). (New) **Cul-S5:** Install and maintain fish screens and fishways at irrigation diversions on fish-bearing streams in compliance with Idaho Department of Fish and Game (IDFG) requirements (Idaho Code 36-906). (New) **Cul-G9 for all sites:** As needed to maintain water rights, manage the HCNRA and implement traditional uses, continue to irrigate areas covered by the water right. (New)	

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Cul-G7 for Kirkwood Historic Ranch: Continue to maintain a portion of the irrigated fields under irrigation for interpretative purposes. Allow pasturing of recreational or administrative pack-and-saddle stock under light use standards. (New) **Cul-G2 for Thorn Creek Guard Station:** Continue to irrigate the two cultivated fields (5.2 acres) as horse pasture for use by FS pack-and-saddle stock. (New) **Cul-G8 for Other Water Rights Transfer Opportunities:** Consider moving part of the Dug Bar water right to the Pittsburg Administrative Site and irrigate the flat field near the administrative site. (New) **General Guideline for all sites** **Cul-G9:** As needed to maintain water rights, consider the short-term option of entering into lease agreements for converting water rights to instream water rights for a specified time period under ORS 537.348(2). Consider use of irrigated fields within the HCNRA for native plant growing areas. Local seed of native species could be collected, grown in the canyon, and used for restoration projects. (New)	Interest Standards for New Applications (OAR 690-33), and in the Idaho State Water Plan (1992) and Comprehensive State Water Plan Rules (IDAPA 37.02.01). (New) **Cul-O1:** Maintain historic uses of cultivated fields and pastures outside Hells Canyon Wilderness. (New) **General Guideline for all sites** **Cul-G1:** Management of historic cultivated lands outside Hells Canyon Wilderness, including those sites within wild and scenic rivers, may include use of traditional equipment, including tractors, plows, harrows, mowers, buck rakes and similar equipment. (New) ***Note to the reader: The following guidelines are not requirements but opportunities, and would need further site-specific analysis as described under Alternative B.*** **Cul-G2 for Cache Creek Ranch:** Consider managing up to 64 acres for native plant production, and/or pasture of livestock, including plowing, disking, planting, irrigating, grazing, harvesting, herbicide use for noxious weed control, and irrigation ditch maintenance, as needed. (New) **Cul-G4 for Dug Bar Ranch:** Consider authorizing the Lone Pine Allotment permittee to continue to irrigate the 25-acre field for hay production, nonnative crops, native plant production, and/or pasture, including plowing, disking, planting, irrigating, grazing, harvesting, herbicide use for noxious weed control and irrigation system maintenance,		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		as needed. If the Lone Pine Allotment permittee no longer desires or requires the use of these lands, manage to maintain the water rights and consider management for native seed production and aesthetic values. (New) **Cul-G6 for Pittsburg Ranch:** Consider irrigating the lawn and orchard for interpretative and administrative purposes. Consider transferring part of the Dug Bar water right to the old irrigated field if needed for pack and saddle stock or to protect the rights at Dug Bar Ranch from nonuse. If the fields are irrigated again, management activities may include plowing, disking, planting, irrigating with a sprinkler system and/or ditch system, grazing, harvesting, herbicide use for noxious weed control, and irrigation system maintenance, as needed. (New) **Cul-G8 for Temperance Creek Ranch:** Consider authorizing permittee to manage about 80 acres for hay production, nonnative crops, native plant production, and/or pasture, including plowing, disking, planting, irrigating, grazing, harvesting, herbicide use for noxious weed control, and irrigation ditch and/or sprinkler system maintenance, as needed. (New) **Cul-G3 for Circle C Ranch:** Consider authorizing the Pittsburg Allotment permittee to manage about 80 acres for hay production, nonnative crops, native plant production, and/or pasture, including plowing, disking, planting, irrigating, grazing, harvesting, herbicide use for noxious weed control, and irrigation ditch maintenance, as needed. If the Pittsburg Allotment permittee no longer desires or requires the use of these lands, manage to maintain the water rights and consider		
		management for native seed production and native ecosystem		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		production and native ecosystem. (New) **Cul-G5 for Kirkwood Historic Ranch:** Consider managing about eight acres for pasture by recreational and administrative pack and saddle stock, including plowing, disking, planting, irrigating, grazing, harvesting, herbicide use for noxious weed control, and irrigation ditch maintenance, as needed. (New) **Cul-G9 for Thorn Creek Guard Station:** Consider managing the two pastures (5.2 acres) for FS pack and saddle stock, including plowing, disking, planting, irrigating, grazing, harvesting, herbicide use for noxious weed control, and irrigation ditch maintenance, as needed. (New) **Cul-G7 for Sheep Creek Ranch:** Consider managing about four acres for pasture by recreational and administrative pack and saddle stock, including plowing, disking, planting, irrigating, grazing, harvesting, herbicide use for noxious weed control, and irrigation ditch maintenance, as needed. (New) **Cul-G10 for Other Sites:** Consider managing other historic cultivated fields located outside Hells Canyon Wilderness for pasture, or native plant production, as needed, including fields located at Cat Creek Ranch, Cherry Creek Ranch, Christmas Creek Ranch, and Jim Creek Ranch. If additional cultivated lands within HCNRA are acquired through land exchange or purchase, management to maintain historic uses should be considered in development of site plans. (New)		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Recreation Use and Livestock Grazing Interactions				
	Gra-G5: The recreational objectives for managing domestic grazing in several high use recreation areas are as follows: (New) Minimize interface[1] of domestic livestock (and administrative horses) with summer-season motorized recreational use in Hat Point RAA (36). Eliminate on-site ground evidence[2] of domestic livestock grazing from the developed recreation sites in Pittsburg (14) and Scenic Snake River (51) RAAs. In the remainder of these RAAs, allow for interface with recreationists but strive to reduce impacts. Minimize interface[1] of domestic livestock with river users in the Wild Snake River RAA (50) during the primary season by controlling the timing and distribution of livestock that may affect the RAA. Minimize interface[1] of domestic livestock with motorized users. Avoid livestock grazing within the developed site in McGraw RAA (40) Minimize interface[1] of domestic livestock with motorized users in Upper Imnaha RAA (41). Avoid livestock grazing within the developed sites. 1 *Visitors would only encounter or sense evidence of individual cows or small herds of cattle in the immediate foreground. Generally, the primary grazing season would not correlate with high use recreation period, or livestock would be distributed away from primary recreation corridors, areas, and sites during the high-use recreation period.* 2 *Visitors would not readily identify evidence of forage removal or manure in the more heavily traveled corridors or high-use recreation sites.*			
	Gra-G6: Minimize interface[1] of domestic livestock with recreationists by controlling the timing of grazing use in Dug Bar (29) and Scenic Snake River (51) RAAs. If livestock feeding occurs, reduce extensive evidence[2] of feeding by mechanical harrowing, burning, or other available methods. Minimize evidence[2] of domestic livestock around Duck Lake and Twin Lakes in North Pine Creek RAA (42). Within Duck Creek corridor, accept interface with recreationists. Minimize interface[1] on collector roads in East Rim Loop RAA (12). Outside collector road corridors, minimize interface and evidence of domestic livestock during trailing. (New)			
Biological Soil Crusts				
		Bic-O1: Conduct management activities in a manner that maintains, enhances, and facilitates restoration of healthy biological soil crust communities. (New) **Bic-O2:** Develop a management plan for biological soil crusts in the HCNRA. This plan will include an analysis of which plant associations have high to moderate existing or potential development of biological		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		soil crusts; maps showing various crust potential, recommendations for maintenance and restoration of biological soil crusts, and monitoring techniques. (New) **Bic-O3:** Develop, through project level planning, management objectives that include desired levels of biological soil crust development based on site capability and rangeland health indicators of site stability and nutrient cycling. Use the biological soil crust evaluation process developed by the BLM-Idaho Office for this evaluation until a HCNRA specific evaluation process is developed. (New) **Bic-S1:** Where human-caused activities are found to be creating unacceptable impacts to biological soil crusts, implement changes in management to reduce or eliminate the impacts. These may include changes in the timing, intensity, frequency, or duration of the activity. (New) **Bic-G1:** Designate and protect representative biological soil crust communities as reference areas and genetic reserves geographically throughout the HCNRA. (New) **Bic-G2:** In areas with high potential or current biological soil crust development, consider grazing strategies that minimize the frequency of surface disturbance during dry periods, and in the spring to allow re-growth. Encourage use of grazing systems that maximize the time between disturbances. (New) **Bic-G3:** Consider locating water developments and salting areas on sites with low potential for biological soil crust development. Use fences or other structures to divert trailing away from sites with high potential for biological soil crust. (New)		

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td></td><td></td><td>Bic-G4: When planning PF, identify areas with high current, or potential for, biological soil crusts. Consider using burning techniques and timing that will minimize potential negative impacts to biological soil crusts. These include fall burning, minimal use of mechanical equipment, encouraging low-intensity fires, and encouraging burning in mosaic patterns. (New)

Bic-G5: Following prescribed or wildfire, consider rest or modification of grazing season in areas of high potential habitat for biological soil crusts. (New)</td><td></td><td></td></tr>
<tr><td colspan="5">Noxious Weeds, Invasive Plants and Nonnative Plants</td></tr>
<tr><td><u>Note to the reader</u>: Reference the Wallowa-Whitman National Forest Integrated Noxious Weed Management Plan (USDA 1992) for existing management direction.</td><td colspan="3"><u>Note to the reader</u>: The following direction would supplement the Wallowa-Whitman National Forest Integrated Noxious Weed Management Plan (USDA 1992) (Forest Plan Amendment 4).

Nox-O1: Manage noxious weeds to reduce negative impacts to native plants, wildlife, and other resources. Use all reasonable and feasible integrated weed management processes available under existing decisions and direction to prevent, restore, eradicate, control, contain, or otherwise reduce negative impacts of noxious weeds. (New)</td><td>Veg-S7: In all proposals for human activities, include a discussion of each alternative's potential for allowing, encouraging, retarding, or foreclosing reintroduction of native plant species.

Veg-O5: Determine the extent of presence of native and nonnative vegetation within the HCNRA and the conditions that favor and prevent the presence, increases, or introduction of nonnative vegetation.</td></tr>
<tr><td></td><td>Nox-S1: Prioritize species and sites to treat infestations with the most potential for control, or to eliminate new invaders. (New)

Nox-S2: Implement the FS closure order prohibiting the use of noncertified feeds on NFS Lands in the State of Idaho (encourage this same program on lands within Oregon). The statute for the state of Idaho prohibits:

"The possession or storage of hay, straw, or mulch that is not certified as being noxious weed free or noxious weed seed free by an authorized State Department of Agriculture Official or designated County Official (36 CFR 261.58)." (State Law)</td><td>Nox-O2: Evaluate extent of nonnative invasive plants, their relative impacts and potential for restoration. (New)

Nox-O3: Evaluate the factors contributing toward the spread of nonnative invasive plants and implement appropriate prevention strategies. (New)

<u>Note to the reader:</u> Refer to the Recreation section for direction requiring all users of pack and saddle stock to carry and use pelletized, or other certified weed-free feed.</td><td>Nox-S1: Prioritize species and sites to treat infestations with the most potential for control, or to eliminate new invaders. (New)

Nox-S2: Implement the FS closure order prohibiting the use of noncertified feeds on NFS Lands in the State of Idaho (encourage this same program on lands within Oregon). The statute for the state of Idaho prohibits:

"The possession or storage of hay, straw, or mulch that is not certified as being noxious weed free or noxious weed seed free by an authorized State Department of Agriculture Official or</td><td>Veg-S8: Using existing data initially, prepare a map of presence of nonnative vegetation in the HCNRA and condition of native vegetation habitats in the HCNRA. Identify and prioritize through existing data all significant information gaps. Improve and update the map every two years.</td></tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
			designated County Official (36 CFR 261.58)." (State Law)	
				Veg-O6: Prepare an analysis of the conditions and activities that prevent, minimize, or reverse (as well as facilitate) the introduction, establishment, spread, and reinvasion of specific nonnative plant species (e.g., cheatgrass, ventanata, starthistle) in the HCNRA. Incorporate findings of the analysis in all activity planning, including livestock grazing permits and AOPs.
	Nox-G1: Conduct restoration activities on grassland sites in mid to early-seral status to improve the ability of native vegetation on site to resist invasion and occupancy by noxious weeds. Restoration activities would be prioritized based on working on the deeper soils and more productive sites as the first priority. Restoration would focus to the degree possible on the restoration of PNC to at least a mid seral or later status within the overall goal of HRV. (New) **Nox-G2:** For all of the HCNRA (Oregon and Idaho), provide information to HCNRA users to prevent the introduction and the spread of noxious weeds. Inform the public about and encourage the use of animal hygiene techniques that prevent the spread of noxious weeds such as grooming (brushing of animals, including tail and mane), and cleaning trailers before entry into the HCNRA. Also encourage people to report noxious weed sites. (New)	**Nox-G1:** Conduct restoration activities on grassland sites in mid-seral or earlier status to improve the ability of native vegetation on site to resist invasion and occupancy by noxious weeds. (New) **Nox-G2:** Develop a public information and education program on preventing the introduction and spread of noxious weeds. Provide a reporting method for and encourage the public to report new weed sites. (New) **Nox-G3:** Provide for natural restoration of degraded sites by modifying management activities as necessary. (New)		**Veg-S9:** If an area is reseeded following fire or other disturbance, native species will be used whenever possible. When reseeding with nonnative species, certification will have to be provided that only species that have been documented as nonpersistent are present in the seeding mixture.
	Nox-G3: Consider quarantine or closure of some areas, trails, and/or roads to prevent the spread of noxious weeds to adjacent areas. (New)		**Nox-S3:** Wallowa County Ordinance (91-001) prohibits importing hay into Wallowa County. (County Ordinance)	**Veg-O7:** Adhere to all provisions within the U.S. Forest Service Pacific Northwest Region *Vegetation Management EIS and Mediated*

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Nox-G4: Continue to support Wallowa County in implementing Wallowa County Ordinance (91-001) that prohibits importing hay into Wallowa County. (County Ordinance)		**Nox-G3:** Active grazing allotments appear to have fewer noxious weeds, therefore, encourage active use of allotments. (New)	*Agreement* for managing unwanted vegetation in order to document that prevention is the primary mode of approach to controlling noxious weeds within the HCNRA, and that non-chemical methods of treatment are given preference over chemical methods, whenever feasible. **Veg-S10:** Only nonpersistent, non-bioaccumulative herbicide formulations for which all ingredients within the formulation are identified will be considered for use. **Veg-S11:** An approximate equal proportion of effort and commitments (e.g., funding, staff time) will be expended for (1) prevention of conditions that favor unwanted vegetation; (2) control of unwanted vegetation; and (3) restoration of sites that have been treated for unwanted vegetation. **Veg-O8:** Develop, with the input of knowledgeable scientists and citizens, a long-term (e.g., 100-year) plan for prevention and minimization of unwanted vegetation within the HCNRA. **Veg-G3:** Offer simple noxious weed identification/reporting forms to all visitors at HCNRA visitor centers, in order to encourage the reporting of locations in which particular noxious weeds are present. **Gra-O10:** Cheatgrass (*Bromus tectorum*) will not be protected within the HCNRA, and conditions favoring natural re-establishment of native grasses and forbs within cheatgrass invasions will be supported (refer to Grassland note 7)
		Nox-G6: When planning PF projects, identify sites of known noxious weeds and/or invasive species of concern. Avoid burning through identified weed sites and/or prescribe management actions that will minimize the potential for creation of site conditions favorable to the spread of invasive weeds. (New) **Nox-G7:** Contain and/or control aggressive noxious weeds and other nonnative plants that reduce ground cover, reduce perennial plant cover, and accelerate erosion. (New)		

<table>
<tr><th colspan="5">Heritage Resources</th></tr>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td>This alternative describes current direction. Reference Forest Plan (pages 4-19 through 4-21) for additional management direction.</td><td colspan="4">The following would replace existing CMP management direction (page 16) and supplement Forest Plan management direction (pages 4-19 through 4-21) for heritage resources.

<u>Note to the reader</u>: A heritage resource is defined as that fragile and nonrenewable evidence of human activity, occupation and or endeavor as reflected in districts, sites, structures, artifacts, objects, ruins, works of art, architecture and natural features that were or are of importance in human events. Heritage resources are further categorized in terms of their prehistoric and historic values; however, each of these aspects represents a part of the continuum of events representing the earliest evidence of man to the present day (36 CFR 800). Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register. This includes artifacts, records, and remains that are related to and located within such properties.</td></tr>
<tr><td></td><td colspan="2">Goal: Heritage resource management and potential management activities that may affect heritage resources are consistent with the National Historic Preservation Act of 1966 as amended; National Environmental Policy Act of 1969; Executive Order 11593; American Indian Religious Freedom Act of 1978; Archaeological Resource Protection Act of 1979 as amended; Native American Graves Protection and Repatriation Act of 1990 (NAGPRA); Executive Order 13007; and 36 CFR 292.43, (Public LURs) within the Hells Canyon National Recreation Area. (New)

Goal: Historic sites that typify the economic and social history of the region and American west are managed for their preservation and restoration. (New)</td><td>Goal: Ensure that management actions that may affect heritage resources are consistent with the National Historic Preservation Act, the Archaeological Resource Protection Act of 1979, 36 CFR 292.43 within Hells Canyon National Recreation Area. (New)</td><td>Goal 1: Native American sites and resources will be identified within the HCNRA in a manner and to the degree that Native American religious meanings and uses are not compromised.

Native American cultural resources will be protected in their native, wild and natural settings. This includes protection of a site's visual, audible and atmospheric surrounding environment. This protection of Native American sites will take precedence over resource-consumptive activities, as mandated in the HCNRA Act.

Ongoing traditional Native American uses of Native American sites and cultural traditions will be accommodated.</td></tr>
<tr><td></td><td colspan="3">Goal: Heritage resources are protected from damage or destruction. Heritage resources are managed for scientific research, public education and enjoyment to the extent consistent with their protection. (36 CFR 292.43, Public LURs)</td><td>Goal 1: Significant non-Native American (e.g., European American, Asian American) historic sites will be protected and maintained in their historic settings for public education about human presence and impacts to the extent that education is consistent with protection.</td></tr>
<tr><td>Her-O: Protect and preserve cultural resource values for this and future generations. (CMP)

Her-O: Interpret cultural resources for public benefit and knowledge insofar as it is compatible with their protection. (CMP)</td><td colspan="2">Her-S1: Determine the significance of heritage resources by applying the National Register criteria for evaluation (36 CFR 800), that consider the architecture, archeology, engineering, and culture of districts, sites, buildings, structures, and objects that posses integrity of location, design, setting, materials, workmanship, feeling, and association with prehistory or American history. (36 CFR 800)</td><td>Her-O2: As part of the management of American Indian heritage sites, consult with the Nez Perce Tribe to ensure that tribal concerns are addressed and treaty rights protected. (New)</td><td>Nat-O1: Through contracted work with the Nez Perce Tribe, and other appropriate tribal representatives as with the Nez Perce Tribe to ensure that tribal concerns are addressed and treaty recommended by the Nez Perce Tribe, prepare standards and</td></tr>
</table>

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td>Her: Develop a cultural resource management action plan for the HCNRA by September 1, 1981. Identify specific protection, research, inventory and interpretive needs and opportunities. The action plan will become a supplement to this CMP. (CMP)</td><td colspan="2">Her-S2: Public education and information activities concerning heritage resources would not be offered or established within the Wilderness. If deemed necessary or appropriate, provide interpretive activities involving heritage resources within Wilderness at visitor centers, trailheads, or schools. (36 CFR 292.43 (b) (2), Public LURs, New)

Her-S3: New trails or relocations of existing trails would not be developed for the sole purpose of providing public access to heritage resource sites on Wilderness lands. (36 CFR 292.43(b) (3), Public LURs, New).

Her-S4: Utilize criteria set forth in 36 CFR 800 as amended to determine whether projects, operating plans, or proposed activities have an adverse effect on heritage resources. (36 CFR 800)</td><td>Her-S2: Consult with the Nez Perce Tribe prior to construction of facilities within proximity to significant heritage resource sites. (New)

Her-S3: Protect Nez Perce sites, where determined to be necessary and desirable, using natural barriers such as native vegetation. (New)</td><td>guidelines for accommodations of traditional Native American uses of Native sites and cultural resources within the HCNRA. The public version of this report will omit any references to specific sites that would place such sites at risk of damage (refer to Appendix J, Native American note 1)

Nat-O2: Complete the cultural resource inventory of HCNRA.</td></tr>
<tr><td>Her: Complete cultural resource inventories and surveys for the entire HCNRA. (CMP)

Her: Stabilize and restore additional homesteads, ranches, cabins, etc. as identified in the Cultural Resource Management Plan. Select sites using the following criteria: historical significance, interpretive potential, and structural stability. (CMP)

Her: Continue low level reconnaissance flights over sensitive areas to monitor cultural resource vandalism. (CMP)</td><td colspan="3">Her-O1: Evaluate historic sites for preservation and restoration that typify the economic and social history of the region and the American West. Preserve and restore selected sites that typify the economic and social history of the region and the American West. (New)

Her-O2: Focus restoration efforts on historic sites with a high potential for on-site interpretation of the economic and social history of the region and the American West and/or that could be utilized in the Recreation Rental or Fee Demo programs, and on prehistoric sites that are in danger of being damaged or destroyed by natural or other processes. (New)

Her-S5: Protect significant heritage resources on-site unless off-site protection is preferable because: 1) adequate on-site protection is not possible, 2) the resource is already adequately represented and protected on-site elsewhere, 3) protection on-site is not consistent with administration of Wilderness lands, or 4) for other good causes shown. (36 CFR 292.43 (a) (3), Public LURs)

Her-G1: Consider the following elements in addition to 36 CFR 800 as amended criteria to determine adverse effects on heritage resources: (New)

1. Surface disturbance - cultural/human or natural surface disturbance occurs when either vegetation or mineral soil is disrupted to the point that context or integrity of site is threatened
2. Removal or alteration of structural elements
3. Removal or alteration of mapped artifacts
4. Modification or alteration of physical environment or setting

Her-O3: As part of the management of American Indian heritage sites, consult with the Nez Perce Tribe to ensure that tribal concerns are addressed. (New)</td><td>Nat-G1: Contract with Nez Perce Tribe for assistance in preparation of the cultural resource inventory of HCNRA.

Nat-G2: Determine, with Nez Perce contracted assistance, potential National Register sites.</td></tr>
<tr><td rowspan="2">Her: Train all HCNRA field-going personnel to recognize cultural resource values and when vandalism is occurring, or has occurred, to these values. (CMP)

Her: Investigate the feasibility and desirability of various techniques to preserve pictographs, house pits, and rock shelters from natural and human-caused deterioration. (CMP)</td><td colspan="2">Her-S6: Consult with interested American Indian groups and appropriate tribal governments prior to construction of facilities within proximity to significant heritage resource sites. (New)</td><td rowspan="2">Her-G1: Consider the use of a programmatic memorandum of agreement to help meet concerns of the Nez Perce Tribe regarding traditional use and prehistoric resources. (New)

Her-G2: Heritage resource protection and sensitivity guidelines should be provided for the general public. (New)</td><td rowspan="2">Nat-O3: Write a new Cultural Resources Protection Plan based on desired future conditions, American Religious Protection Act and National Historic Preservation Act.

Nat-S1: Contract with Nez Perce Tribe and other appropriate tribal representatives, as recommended by the Nez Perce Tribe, to co-write the Cultural Resources Protection Plan (refer to Native American note 2).</td></tr>
<tr><td></td><td>Her-S6: Consult with the Nez Perce Tribe to prioritize and manage plant, wildlife, and fishery species identified as important to Tribe for harvesting, gathering, and for cultural, spiritual, and religious activities. (New)</td></tr>
<tr><td>Her: Where appropriate, secure artifacts, such as farm implements at homesteads, to the ground. (CMP)</td><td colspan="2">Her-S7: In conjunction with the Nez Perce Tribe, protect American Indian sites, where determined to be necessary and desirable, using natural barriers such as native vegetation. (New)</td><td></td><td></td></tr>
</table>

Alternative A	Alternative B / Alternative E-modified	Alternative W	Alternative N
Her: At selected sites identified in the Cultural Resource Management Plan, post FS sign 9905-00-100-8921 which points out that the site has cultural resource values. (CMP) **Her:** Include cultural resource protection clauses in all special-use permits issued for commercial use in the HCNRA. (CMP) **Her:** Conduct interpretive programs at key contact stations to educate HCNRA visitors to cultural resource values and their vulnerability. Select sites using the following criteria: Interpretive potential, historical significance, structural integrity of buildings and proximity to high use areas. Provide slide tape programs, signs, and brochures where appropriate to inform visitors. Contact stations with interpretive facilities shall include, but not necessarily be limited to, Hells Canyon Dam launch site, the Enterprise, Lewiston, and Riggins administrative sites, Heavens Gate, Triangle Mountain, Pittsburg Landing, Lookout Mountain, Hat Point, and the Wilson Ranch at Kirkwood Bar. When and where appropriate, personnel will explain cultural resource values. (CMP) Examples are persons living at old homesteads and at excavation sites. **Her:** Identify historic and archaeological sites that have the most anthropological research potential. Also, identify and prioritize problem areas that research needs to address. Give priority to research projects designed to help interpret the cultural history of Hells Canyon. (CMP) **Her:** Artifacts recovered from any archaeological research or salvage project will be kept in a repository approved by the Regional Forester, preferably in or adjacent to the HCNRA. (CMP) **Her:** Salvage projects will be limited to extreme cases and permitted only when an archaeological site is in imminent danger of destruction. (CMP)	**Her-G2:** Consider the use of a programmatic memorandum of agreement to help meet concerns of the Nez Perce Tribe regarding traditional use and prehistoric resources. (New) **Her-G3:** Consider *Nez Perce National Historical Park General Management Plan* (USDI 1997) in protecting and providing interpretation for Nez Perce sites on the HCNRA. (CMP) ***Note to the reader: Refer to the following section on Federal Trust Responsibilities for additional management direction related to the Nez Perce Tribe.*** **Her-S8:** Prevent degradation of heritage resource sites from domestic livestock grazing through appropriate practices. (New) **Her-S9:** Conduct maintenance, renovation, and/or restoration activities involving listed, or potentially eligible historic properties, in accordance with the *Secretary's Standards for Rehabilitation of Historic Properties*. (36 CFR 68) **Her-S10:** Continue to monitor those sites listed on the National Register of Historic Places, or those sites eligible for listing, on an interval/frequency sufficient to determine if change or adverse impacts are occurring, at no less than three-year intervals. (New) **Her-S11:** Manage outfitter and guide program pursuant to heritage resource protection under outfitter and guides section of the recreation standards and guidelines. (New) **Her-S12:** Permitted activities resulting in damage or destruction of heritage resources would be responsible for their restoration. (New) **Her-G4:** Make heritage resource protection and sensitivity guidelines available for the general public. Make videos available for viewing in visitor centers and offices. (New) **Her-G5:** In cooperation with private landowners, develop mechanism for monitoring heritage resources on private lands within the HCNRA per the Private LURs. (New) **Her-S13:** Continue mapping heritage resources, including global positioning coordinates, based on priorities of sites listed, eligible for listing, or potentially eligible for listing on the National Register of Historic Places. (New) **Her-G6:** Develop a heritage resource management plan including the following elements: 1. Determine the relative significance of all heritage resources within the HCNRA using a thematic approach (Refer to Her-G9). 2. Establish protection, preservation, and enhancement priorities for prehistoric and historic resources.	**Her-S4:** Continue mapping heritage resources, including global positioning coordinates, based on priorities of sites listed, eligible for listing, or potentially eligible for listing on the National Register of Historic Places. (New) **Her-G3:** Emphasize the development of a heritage resource management plan. A heritage resource management plan should include the following direction: (New) 1. Determine the relative significance of all heritage resources within the HCNRA. 2. Establish protection, preservation, and enhancement priorities for prehistoric and historic resources. 3. Establish interpretive opportunities and priorities and tier to HCNRA interpretive plan. 4. Develop research design and establish research priorities for heritage resources. 5. ID & develop management guidelines for traditional use sites through consultation with Nez Perce Tribe. 6. Develop maintenance and protection plan for key historic structures. 7. Establish monitoring priorities and develop monitoring plan and monitoring schedule.	**Nat-S2:** Each alternative prepared in proposals for human activities that may interfere with the native, wild, and natural setting of a Native American site or resource or result in degradation of such a site or resource will be accompanied by a finding of the alternative's potential to protect or degrade the Native American sites and to comply with provisions to the Cultural Resources Protection Plan **Nat-G3:** Alter practices under the Cultural Resources Protection Plan in response to the results of the annual survey of HCNRA users' awareness of their obligation to protect Native American sites and cultural resources. **Nat-O4:** The nature of visitation to Native American sites must first and foremost be geared to protection of the sites and the meaning of the sites to Native Americans rather than to convenience or perceptions of the visitors. **Nat-S3:** Do not direct people to Native American sites. Do not provide trails, roads, developments or on-site interpretive structures. Use natural barriers, such as native vegetation, for protection of sites. **Nat-S4:** No new non-Indian overnight camping, day-use facilities, or other developments will be allowed within at least 100 yards of a Native American site. Recognizing that the setting of a site may be of particular significance to Native Americans, the Nez Perce will be consulted regarding the appropriate distance of any developments from a particular site. If research with traditional Native Americans is necessary to establish this distance, the Nez Perce will be contracted to undertake such research. **Nat-S5:** Limit alterations of surrounding environment/setting caused by livestock grazing and vegetation manipulation. Proposals for

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	3. Establish interpretive opportunities and priorities and tier to HCNRA interpretive plan. 4. Develop research design and establish research priorities for heritage resources. 5. Identify and develop management guidelines for traditional use sites through consultation with American Indian community. 6. Develop maintenance and protection plan for key historic structures. 7. Establish monitoring priorities and develop monitoring plan and monitoring schedule. 8. Develop/establish inventory priorities for uninventoried portions of HCNRA. (New) **Her-G7:** Consider developing a heritage data base that could interact with geographic information systems. (New) **Her-G8:** Develop a heritage site steward plan in cooperation with the public and outfitter communities. (New)		8. Develop/establish inventory priorities for uninventoried portions of HCNRA. (New) **Her-G4:** Develop a heritage site stewardship plan in cooperation with the public and all users of the HCNRA. (New) **Her-S5:** Protect by custodial maintenance existing interpretation opportunities for prehistoric sites in areas that receive higher recreation use outside the Hells Canyon Wilderness. For prehistoric sites in lower recreation use areas and the Hells Canyon Wilderness, manage for self-discovery interpretation opportunities. (New) **Her-S6:** Maintain, stabilize, or restore the most significant representative historical structures within the entire HCNRA. (New)	and monitoring of livestock grazing will address the degree to which potential and actual harm will be done to Native American sites.
Her: Continue to implement Forest Plan and existing CMP management objectives and direction for prehistoric and historic sites. Continue planning and implementation for a heritage resource management plan and heritage resource inventory of prehistoric and historic sites on the entire HCNRA including Hells Canyon Wilderness. (CMP, Forest Plan) **Her:** Conduct archival research and oral history interviews to better understand prior human HCNRA occupation. (CMP) **Her:** Continue to involve all relevant Indian interests in all management decisions which may affect native American heritage. (CMP)	**Her-S14:** Protect and maintain existing interpretation opportunities for prehistoric sites within the entire HCNRA including the Hells Canyon Wilderness. (New) **Her-S15:** Continue to maintain historical structures, including structures in the Hells Canyon Wilderness, if they are in an appropriate condition to be maintained. Allow historical structures that are not in condition to be maintained to deteriorate following appropriate data collection. (New) **Her-G9:** Evaluate nonhistorical structures and facilities within the entire HCNRA, including Hells Canyon Wilderness, for stabilization, restoration, or	**Her-S15:** Protect by custodial maintenance existing interpretation opportunities for prehistoric sites in areas that receive higher recreation use outside the Hells Canyon Wilderness. For prehistoric sites in lower recreation use areas and the Hells Canyon Wilderness, manage for self-discovery interpretation opportunities. (New) **Her-S16:** Maintain, stabilize, or restore the most significant representative historical structures within and outside of the Hells Canyon Wilderness. Allow other structures to deteriorate following appropriate data collection. Within the Hells Canyon Wilderness, allow structures or sites used in administration of Wilderness resources and permitted domestic livestock operations to remain. (New)	**Her-G5:** Evaluate nonhistorical structures and facilities within the entire HCNRA, including Hells Canyon Wilderness, for stabilization, restoration, or maintenance based on potential historical value. (New)	**Nat-S6:** No visual or audible elements that are out of character with the site or that alter its setting will be allowed. The Nez Perce Tribe will, through contracted work, provide guidance regarding what constitutes such alteration, based on traditional uses and relationships to such sites. Likewise, the Nez Perce will address the degree of significance of particular elements in the surrounding area of the site. **Nat-S7:** A Native American site will not be isolated from its surrounding environment. The Nez Perce Tribe, through contracted work, will provide guidance regarding what constitutes such isolation, based on traditional uses of and relationships to such sites. **Nat-O5:** Remove the road and parking lot to the Pittsburg petroglyphs; remove

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td></td><td>maintenance based on potential historical value. (New)</td><td>Her-G9: Evaluate structures and facilities within the entire HCNRA, including Hells Canyon Wilderness, for stabilization, restoration, or maintenance based on potential historical value. (New)</td><td></td><td>the developed trails within the petroglyph site (refer to Native American note 3)</td></tr>
<tr><td></td><td colspan="2">Her-G10: Use the following interpretive heritage themes in each of the RAAs: (New)

<table>
<tr><th>RAA</th><th>Name</th><th>Heritage Theme</th></tr>
<tr><td>01</td><td>Sheep Creek</td><td>Prehistoric Settlement</td></tr>
<tr><td>02</td><td>Dry Diggins</td><td>Self-discovery</td></tr>
<tr><td>03</td><td>Sheep Lake</td><td>Self-discovery</td></tr>
<tr><td>04</td><td>Seven Devils</td><td>Self-discovery</td></tr>
<tr><td>05</td><td>Baldy Lake</td><td>Self-discovery</td></tr>
<tr><td>06</td><td>East Face</td><td>Self-discovery</td></tr>
<tr><td>07</td><td>Horse Heaven</td><td>Self-discovery</td></tr>
<tr><td>08</td><td>Granite Creek</td><td>Prehistoric Settlement</td></tr>
<tr><td>09</td><td>Lakes Basin</td><td>Self-discovery</td></tr>
<tr><td>10</td><td>Black Lake</td><td>Historic Mining</td></tr>
<tr><td>11</td><td>Windy Saddle</td><td>Forest Service, Fire Management, Self-discovery</td></tr>
<tr><td>12</td><td>East Rim Loops</td><td>Self-discovery</td></tr>
<tr><td>13</td><td>Kirkwood</td><td>Historic Ranching, Prehistoric Settlement</td></tr>
<tr><td>14</td><td>Pittsburg Landing</td><td>Prehistoric Settlement, Homesteading, Historic Ranching</td></tr>
<tr><td>15</td><td>Big Canyon</td><td>Self-discovery</td></tr>
<tr><td>26</td><td>Cottonwood</td><td>Prehistoric Settlement</td></tr>
<tr><td>27</td><td>Buckhorn/Cold Springs</td><td>Historic American Indian</td></tr>
<tr><td>28</td><td>Jim/Cherry Creek</td><td>Prehistoric Settlement</td></tr>
<tr><td>29</td><td>Lower Imnaha</td><td>Prehistoric Settlement, Historic Ranching</td></tr>
<tr><td>30</td><td>Tryon/Deep Creek</td><td>Prehistoric Settlement, Historic Ranching</td></tr>
<tr><td>31</td><td>Somers Point</td><td>Self-discovery</td></tr>
<tr><td>32</td><td>Lord Flat</td><td>Historic Ranching</td></tr>
<tr><td>33</td><td>Mormon Flat</td><td>Self-discovery</td></tr>
<tr><td>34</td><td>Horse Creek</td><td>Self-discovery</td></tr>
<tr><td>35</td><td>Imnaha</td><td>Self-discovery</td></tr>
<tr><td>36</td><td>Hat Point</td><td>FS, Fire Management, History</td></tr>
<tr><td>37</td><td>Saddle Creek</td><td>Self-discovery</td></tr>
<tr><td>38</td><td>Lookout Mountain</td><td>Self-discovery</td></tr>
<tr><td>39</td><td>Buck Creek</td><td>Self-discovery</td></tr>
<tr><td>40</td><td>McGraw</td><td>Prehistoric Settlement</td></tr>
<tr><td>41</td><td>Upper Imnaha</td><td>Historic American Indian</td></tr>
<tr><td>42</td><td>North Pine</td><td>Prehistoric Settlement</td></tr>
<tr><td>50</td><td>Wild Snake River</td><td>Historic Ranching, Prehistoric Settlement, Homesteading</td></tr>
<tr><td>51</td><td>Scenic Snake River</td><td>Historic Ranching, Prehistoric Settlement, Homesteading</td></tr>
<tr><td>99</td><td>Rapid River</td><td>Prehistoric Settlement, Traditional Use</td></tr>
</table></td><td></td><td>Nat-O6: Improve enforcement of protection and monitoring measures for Native American sites.

Nat-S8: The obligation to protect cultural resources will be an explicit condition for obtaining and maintaining a commercial boat operator's license or a private boating permit on the Snake River. In addition to provision of brochures to private boaters, personal representation of this obligation will be made by the FS and volunteers to all private boaters before they enter the river.

Nat-S9: The obligation to protect cultural resources will be made explicit to all users of the HCNRA.

Nat-G4: Provide for off-site education of the public and FS personnel concerning protection of Native American cultural resources. Through contract work with the Nez Perce Tribe, design and provide:

▪ A cultural resource protection informational session for all commercial boat operators and users.
▪ Native American resource awareness sessions for FS employees
▪ Off-site public education regarding the significance of and protection of Native American cultural resources and sites.
▪ On-site interpretation if any, as compatible with long-term protection of Native American cultural resources and sites.

Nat-O7: Enforce guidelines for protection of Native American sites and cultural resources.</td></tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	***Note to the reader**: It is important to review Tables C-6: Management Objectives for Facilities by Alternative for further direction.*			**Nat-S10:** Provide, as necessary and appropriate, seasonal patrol rangers to provide physical presence to deter vandalism. **Nat-G5:** Implement the Native American Heritage Protection system through which volunteers aid in protection of heritage sites in HCNRA. Through contract work with the Nez Perce Tribe, develop guidelines for such protection. **Nat-O8:** Monitor attainment of goals, objectives, standards, and guidelines for Native American sites. **Nat-S11:** An annual report will be prepared regarding problems with and successes at providing protection for Native American sites and cultural resources. This report will be co-authored with contracted Nez Perce Tribal assistance. The public version of this report will omit references to location of specific sites where such references would endanger the site. **Nat-S12:** Each alternative prepared in proposals for human activities that may interfere with the native, wild, and natural setting of a Native American site or resource or result in degradation of such a site or resource will be accompanied by an estimate of the cost of monitoring that will be required to monitor whether degradation of such a site or resource will be occurring. **Nat-G6:** An annual, random survey will be made of users of the HCNRA, determining the degree to which they are aware of their obligation to protect cultural resources within the HCNRA. The results of this survey will be made public each year, along with plans to improve the degree of awareness. The methodology of this survey need not be extensive in order to serve the purposes of obtaining meaningful results. It is essential, however, to not

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				assume current efforts at such education are successful. **Non-Nat-O1:** Determine which sites have historic significance based on the following: 1. The site is the only remaining representative of an era, activity or site type. 2. The site includes a variety of features 3. The site is representative of a significant era or activities within the HCNRA. **Non-Nat-S1:** Protect historically significant sites as mandated by law. **Non-Nat-O2:** Determine which sites are not historically significant based on the following: 1. Sites with substantial damage (50% or more disturbed). 2. Sites that are not representative of a significant era or activity (e.g., the Carter site). 3. Sites in fair condition where a better representative of an era, activity, or site exist. **Non-Nat-S2:** Allow nonsignificant sites to deteriorate naturally. **Non-Nat-G1:** Undertake the minimal effort necessary to reduce unsafe conditions within deteriorating structures (e.g., downing a wall that threatens to topple). **Non-Nat-O3:** Retain the natural setting of non-Native American historic sites. **Non-Nat-G2:** Implement the Heritage Protection System whereby volunteers aid in protection of heritage sites in HCNRA. **Non-Nat-O4:** Provide for public education about the historic significance of significant sites to the

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				extent that education is consistent with protection of the site and its natural setting. **Non-Nat-G3:** Contract with the Nez Perce Tribe to work with the HCNRA to review all public educational materials regarding non-Native American sites within the HCNRA. **Non-Nat-G4:** Staff certain sites with volunteers who can help educate the public about the historical presence of non-Native Americans in Hells Canyon. These will include consideration of impacts on Native Americans and native wildlife and ecosystems. **Non-Nat-O5:** Monitor attainment of goals, objectives, standards, and guidelines for non-Native American sites. **Non-Nat-S4:** Monitor significant sites for any cases of vandalism or for repair/maintenance work that needs to be done. Where feasible, involve volunteers in a Heritage Protection System in the monitoring and protection of significant sites.

Federal Trust Responsibilities				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
There is no corresponding management direction in the existing CMP. Reference Forest Plan (pages 4-18 through 4-19), Columbia River Basin Anadromous Fish Habitat Management Policy and Implementation Guide (USDA 1991) and other applicable laws and executive orders for management direction.	***The following would supplement Forest Plan direction (pages 4-18 through 4-19), the Columbia River Basin Anadromous Fish Habitat Management Policy and Implementation Guide* (USDA 1991).**			***There is no corresponding management direction in this alternative. Tribal interests are addressed in the various resource sections.***
	Goal: Manage natural resources consistent with the 1855 treaty with the Nez Perce Tribe (FSM 1563). Express rights reserved under the *Treaty of 1855* include those found in Article 3 of the Treaty, "The exclusive right of taking fish in all the streams where running through or bordering said reservation is further secured to said Indians; as also the right of taking fish at all usual and accustomed places in common with citizens of the Territory; and of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land". (New)		**Goal:** Manage natural resources consistent with trust responsibilities of the treaty with the Nez Perce, 1855. (New)	
	Tri-S1: Consult with the Nez Perce Tribe to prioritize and manage plant, wildlife, and fishery species significant to the Tribe for harvesting, gathering, and for cultural, spiritual, and religious activities identified as important to the Tribe. (New) **Tri-S2:** Protect the tribal rights of taking fish in all usual and accustomed places in common with other citizens of the United States and of erecting suitable buildings for curing; together with the privilege of hunting, gathering roots and berries, and pasturing horses and cattle on unclaimed lands through sound management of appropriate resources such as aquatic habitat, wildlife habitat, forage, and riparian areas as stated in the *Treaty of 1855*. (New) **Tri-G1:** Work closely with the Nez Perce Tribe in supporting efforts to restore, manage, and rehabilitate vegetative resources which are not currently meeting tribal goals and responsibilities or are expected to decline in the future. (New)	**Tri-O1:** Consult with the Nez Perce Tribe and other agencies to prioritize, manage and monitor population trends of harvestable species, effectiveness of actions, and conflicts with other users, management, or resources demands. (New) **Tri-S1:** Honor the tribal rights of taking fish in all usual and accustomed places in common with other citizens of the United States and of erecting suitable buildings for curing; together with the privilege of hunting, gathering roots and berries, and pasturing horses and cattle on unclaimed lands through sound management of appropriate resources such as aquatic habitat, wildlife habitat, forage, and riparian areas as stated in the *Treaty of 1855*. (New) **Tri-G1:** Work closely with the Nez Perce Tribe to prioritize and manage natural resources important to the Tribe for harvesting, gathering, and for cultural, spiritual, and religious activities identified by the Tribe. (New)	**Tri-S1:** Consult with the Nez Perce Tribe to prioritize and manage plant species significant to the Tribe for harvesting, gathering, and for cultural, spiritual, and religious activities identified as important to the Tribe. (New) **Tri-S2:** Protect the Tribal rights of taking fish in all usual and accustomed places in common with other citizens of the United States and of erecting suitable buildings for curing; together with the privilege of hunting, gathering roots and berries, and pasturing horses and cattle on unclaimed lands through sound management of appropriate resources such as aquatic habitat, wildlife habitat, forage, and riparian areas as stated in the *Treaty of 1855*. (New) **Tri-G1:** Work closely with the Nez Perce Tribe in supporting efforts to restore, manage, and rehabilitate vegetative resources which are not	

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Tri-G2: Consult with the Nez Perce Tribe and other agencies to establish a monitoring and tracking system, as needed, for tribal harvest, population trends of harvest species, effectiveness of treatments, and conflicts with other users, management or resources demands. (New) **Tri-G3:** Consult with the Nez Perce Tribe to develop and implement a strategy to monitor the taking and harvesting of natural resources for which the FS has management responsibilities to determine whether the activity adversely impacts habitat or reduces populations of species to the point where federal listing may become necessary, or where federally listed, proposed, or candidate (C1) species are adversely affected. (New) **Tri-G4:** Consult with the Nez Perce Tribe to develop and implement management strategies where user conflicts develop, or demand exceeds supply for harvest and gathering resources desired by tribal and nontribal users. (New) **Tri-S3:** Assure that management actions do not prevent access to usual and accustomed fishing places, hunting locations, gathering sites, and other cultural sites. Consult with Nez Perce Tribe before changing access, closing roads, or exchanging these lands. (New) **Tri-S4:** Consult with the Nez Perce Tribe on changes in access or ownership that may affect treaty reserved rights or the exercising of said rights on NFS land. (New) **Tri-S5:** Conduct and document an analysis of impacts to culturally significant plants during site-specific	**Tri-G2:** Work closely with the Nez Perce Tribe, and other tribes with treaty rights, in supporting efforts to restore, manage, and rehabilitate vegetative, wildlife, and fishery resources which are not currently meeting tribal goals and responsibilities or are expected to decline in the future. (New) **Tri-G3:** Consult with the Nez Perce Tribe to develop and implement a strategy to monitor the taking and harvesting of natural resources for which the FS has management responsibilities to determine whether the activity adversely impacts habitat or reduces populations of species to the point where federal listing may become necessary, or where federally listed threatened and endangered or proposed, or candidate species are adversely affected. (New) **Tri-G4:** Consult with the Nez Perce Tribe to develop and implement management strategies where user conflicts develop, or demand exceeds supply for harvest and gathering resources desired by tribal and nontribal users. Identify opportunities with the Nez Perce Tribe to enhance plant species of interest to the Tribe. (New) **Tri-S2:** Assure that management actions do not prevent access to usual and accustomed fishing places, hunting locations, gathering sites, and other cultural sites. Consult with the Nez Perce Tribe before changing access, closing roads, or exchanging these lands. (New) **Tri-S3:** Consult with the Nez Perce Tribe on changes in access or ownership that may affect Treaty reserved rights or the exercising of said rights on NFS land. (New)	currently meeting tribal goals and responsibilities or are expected to decline in the future. (New) **Tri-G2:** Consult with the Nez Perce Tribe and other agencies to establish a monitoring and tracking system, as needed, for tribal harvest, population trends of harvest species, effectiveness of treatments, and conflicts with other users, management or resources demands. (New) **Tri-G3:** Monitor the taking and harvesting of natural resources for which the FS has management responsibilities to determine whether the activity adversely impacts habitat or reduces populations of species to the point where federal listing may become necessary, or where federally listed, proposed, or candidate (C1) species are adversely affected. (New) **Tri-G4:** Consider a permit system to allocate resources where user conflicts develop, or demand exceeds supply for harvest and gathering resources desired by tribal and nontribal users. (New) **Tri-S3:** Assure that management actions do not prevent access to usual and accustomed fishing places. Consult with Nez Perce Tribe before changing access, closing roads, or exchanging these lands. (New) **Tri-S4:** Consult with the Nez Perce Tribe on changes in access or ownership that may	

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	NEPA analysis. Design projects to minimize negative impacts to culturally significant plant populations, and when possible enhance habitat of these species. (New) **Tri-S6:** Consult with the Nez Perce Tribe to identify species and/or areas of cultural concern, and to develop recommended management strategies to enhance populations and habitat of culturally significant plants, wildlife, and fisheries. (New) **Tri-S7:** Develop and implement an inventory and monitoring program for culturally significant plants. This will validate effectiveness of standards and guidelines for enhancing populations of the species. (New)	**Tri-S4:** Conduct and document an analysis of impacts to culturally-significant plants during site-specific NEPA analysis. Design projects to minimize negative impacts to culturally significant plant populations; and when possible, enhance habitat of these species. (New) **Tri-S5:** Consult with the Nez Perce Tribe to identify species and/or areas of cultural concern and to develop recommended management strategies to enhance populations and habitat of culturally significant plants, wildlife, and fisheries. (New) **Tri-S6:** Work closely with the Nez Perce Tribe in supporting efforts to exercise treaty grazing rights and implement a feasible grazing strategy. (New) ***Note to the reader: Refer to the Heritage, Vegetation, Fire, Riparian/Aquatic Habitat/ Water Quality and Wildlife Habitat sections in this appendix for additional management direction related to protecting treaty resources.***	affect treaty reserved rights or the exercising of said rights on NFS land. (New)	

Soils				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
Reference Forest Plan (pages 4-21 through 4-26) for additional management direction.	***The following would replace existing CMP management objectives (page 19) and supplement Forest Plan management direction, (pages 4-21 through 26).***			***The following would supplement Forest Plan direction and replace the existing CMP.***
	Goal: Manage soil resources in a manner compatible with those values for which the HCNRA was established, recognizing that management objectives for particular areas and resources may vary between preservation, conservation, or protection. (New)	**Goal:** Manage soil resources in a manner compatible with those values for which the HCNRA was established, recognizing that soil management objectives for particular management areas, ecosystems, habitats, sites, and resources may include preservation, conservation, protection, restoration and/or maintenance activities. (New) Maintain soil productivity and soil stability at acceptable levels by minimizing soil or ground cover disturbance during implementation of management activities. (Forest Plan)		**Goal:** HCNRA soils will be biologically healthy and biologically diverse. The soils will support biological diversity and biological integrity appropriate to soil mineralogic, hydrologic, organic, and biologic characteristics, and soil type. HCNRA soils will exhibit and maintain complete horizons appropriate to the soil type. The soils will be uncompacted, permeable as appropriate to mineralogy and structure, and provide a reservoir of groundwater which is hydrologically connected to surface streams. The soils will contribute to water quality, quantity, and aquatic system water flows. The soils will contain organic content and nutrients that will support a healthy and diverse native vegetative cover. Bioturbation will be a significant component of soil structure, activity, and development. The rate of soil formation and maturation will be sufficient to replenish loss of soil to erosion for any one soil type at any locality. Soil erosion will be minimal, and restricted to natural geologic rates based upon erosion of healthy, native-vegetated soils during storm and other natural events. Soil temperatures will be moderated by vegetative cover and hydrologic characteristics. Management of human activities in the HCNRA will recognize not only the central importance of soils, but also their vulnerability to degradation and, depending on the intensity of disturbance, the often very long times required to recover soil function and integrity. Management of human activities will incorporate the reality that even subtle degradation of soil

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				qualities can reduce resiliency, reduce the ability of the soil to hold nutrients, and leave soils more vulnerable to further insult. Prescribed erosion, nutrient losses, and mass wasting will be avoided. Management of human activities will avoid the historical failure to meet existing soil standards, failure to respond adaptively to results of monitoring, inadequate inventory of conditions prior to activities, and failure to establish adequate reference or control areas.
Soi-O: Maintain or enhance the present level of water quality and soil productivity. (CMP) **Soi:** Conduct resource management activities (timber, mining, recreation, and grazing) in a manner to minimize soil disturbance and stream sedimentation. (CMP) **Soi:** Locate and construct needed sanitary facilities so as to minimize pollution and contamination of surface and ground water. (CMP) **Soi:** Take prompt action to correct soils that have been adversely affected by resource management and recreation activities. (CMP) **Soi:** Locate and design recreation developments, roads, and trails to minimize soil displacement. Maintain and rehabilitate improvements to correct soil deterioration. (CMP) **Soi:** Use natural barriers including rocks, logs, and vegetation when possible to direct visitor use and prevent soil and water damage. Prohibit motorized access when and where necessary to prevent soil displacement. (CMP) **Soi:** Activities occurring within a floodplain or wetland will be evaluated in accordance with the procedures and guidelines established in *Executive Order 11988* (floodplains) and *11990* (wetlands). Wetlands adjacent to alpine lakes will be	**Soi-O1:** Manage grassland and shrubland soil conditions to achieve a soil stability rating of good. (New) **Soi-S1:** Supplement Forest Plan soils S&G 2 with the following definition for detrimental conditions on an activity area: (Forest Plan, FSM 2521 R6 Supp. 2500-98-1) **Soil Compaction (Nonvolcanic Soils):** Fifteen percent increase in bulk density; 50 percent decrease in macro pore space; less than 15 percent macro pore space. **Soil Compaction (Volcanic Ash):** Fifteen percent increase in bulk density. **Soil Displacement:** Removal of 50 percent of A and/or AC horizons from a 100-square-foot or larger area. **Soil Puddling:** Loss of soil structure by rutting at greater than 6-inch depth. **Burning:** Top layer of mineral soil changed in color to red, next 0.5 inch blackened **Soi-G1:** Ground-based equipment operations are normally restricted to periods of	**Soi-O1:** Manage soil surface conditions consistent with late-seral status depending on the PNC. During project planning and monitoring, document the location and condition of soils or sites that do not have this potential, or that have a lower rating due to impacts from wildfire, flood, or management activities, and develop appropriate soil improvement objectives, where needed. (New) **Soi-O2:** Complete a watershed improvement needs inventory for HCNRA that includes soil resource improvement needs. Focus soil resource restoration activities on management-related impacts not meeting desired conditions. (FSM 2522.04 WO Amend. 2500-2000-2 as updated) **Soi-O3:** Complete an Order 2/3 ecological inventory (based on National Cooperative Soil Survey protocols) and Order 4 land systems inventory (based on FS protocols) of HCNRA to provide basic soils, vegetation, geology, climate and landform information for evaluation of management activities. Inventory data and interpretations will be of sufficient detail to allow appropriate soil productivity and soil stability evaluations for management activities. (FSM) **Soi-O4:** Identify and characterize unique soils that are a necessary part	**Soi-O1:** Manage grassland and shrubland soil conditions to achieve a soil stability rating of good (New). **Soi-S1:** Supplement Forest Plan soils S&G 2 with the following definition for detrimental conditions on an activity area: (Forest Plan, FSM 2521 R6 Supp. 2500-98-1) **Soil Compaction (Nonvolcanic Soils):** Fifteen percent increase in bulk density; 50 percent decrease in macro pore space; less than 15 percent macro pore space. **Soil Compaction (Volcanic Ash):** Fifteen percent increase in bulk density. **Soil Displacement:** Removal of 50 percent of A and/or AC horizons from a 100-square-foot or larger area. **Soil Puddling:** Loss of soil structure by rutting at greater than 6-inch depth. **Burning:** Top layer of mineral soil changed in color to red, next 0.5 inch blackened **Soi-G1:** Consider using the following activities to achieve soil and riparian/ water quality	**Soi-O1:** Complete a soil survey of HCNRA, using existing data where possible, with 20% ground-truthing. New information will be entered on a continuous basis. **Soi-S1:** Establish reference or control areas representative of excellent soil conditions of all major types within the HCNRA. **Soi-G1:** Initiate research partnerships to define parameters of biologically healthy soil in the HCNRA. **Soi-O2:** Establish soil restoration priorities based on the inherent productive potential of soils and the degree of degradation, with heavily-impacted, highly productive soils as the highest priority. Establish such priorities in the context of watershed-level restoration plans (refer to the section on "Wildlife Habitat: Riparian"). **Soi-S2:** Soils on sites affected by fire will not be disturbed by human activities (except for revegetation with native plants, if necessary) until revegetated by natural processes, and a minimum of five years has passed. **Soi-S3:** Management activities to stabilize soils on previously disturbed sites or on management sites will utilize only native vegetation

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
monitored for recreation impacts. Corrective action will be taken as necessary. (CMP) **Soi:** All management activities will require the completion of at least an Order III Soils Survey. Site-specific activities such as recreation developments require an Order I or II Survey. Descriptions of the various surveys are in the FSM 2521. (CMP)	"favorable" moisture levels (i.e., when soils are dry; when the ground is frozen to a depth of 4 inches or more, or when the depths of snow exceeds two feet). (New) **Soi-G2:** Ground-based equipment operations are normally restricted on sites where the erosion hazard rating (EHR) is 8 or less to avoid excessive land disturbance. (New) **Soi-G3:** Complete erosion prevention and control projects in a timely manner. Generally, this means completing these measures prior to the first major storm event or prior to being prohibited from completing work by winter snows. Erosion control work should be kept current so that a large backlog of work does not exist which cannot be completed prior to the onset of winter. (New) **Soi-G4:** Use full or partial suspension of log yarding or minimize ground disturbance where practicable or mechanically feasible. (New) **Soi-G5:** Give special consideration to scablands or other lands having shallow soils during project analysis and, as necessary, provide protection and other mitigation measures. (Forest Plan) **Soi-G6:** Consider using the following activities to achieve soil and riparian/water quality standards and guidelines: ▪ Proper location and design of all system and temporary roads, recreation developments, and trails. (CMP) ▪ Control traffic during wet	of the habitat for federally listed threatened and endangered, proposed or sensitive plant or animal species, biologically unique and rare combinations of outstanding and diverse ecosystems. (New) **Soi-S1:** Identify and evaluate adverse impacts to soil productivity and soil stability. (Forest Plan) **Soi-G1:** Use soil information from land system inventories, ecological inventories, soil surveys, and soil site inspections, as appropriate, to evaluate soil characteristics, potentials and limitations, effects on soils, and protection, rehabilitation and monitoring needs when implementing management activities that will disturb soil or vegetation resources. (New) **Soi-G2:** Consider using the following methods to achieve soil quality and soil-related riparian/water quality objectives for forestland management activities involving ground-based equipment use: (Forest Plan) ▪ Restrict equipment use to slopes under 30 percent gradient. ▪ Restrict equipment use to periods of favorable soil moisture levels (i.e., when soils are dry, or the ground is frozen to at least a 4-inch depth, or snow depth is at least two feet). ▪ Designate landing and skid trail locations. ▪ Use full or partial suspension log yarding, where practicable and mechanically feasible, to minimize ground disturbance. **Soi-G3:** Consider using the following methods to achieve soil quality and soil-related riparian/water quality objectives for all management activities: (New) ▪ Restore damaged soils to as near pre-impact conditions as possible, where appropriate and practicable.	standards and guidelines: ▪ Proper location and design of all system and temporary roads, recreation developments, and trails. (CMP) ▪ Control traffic during wet periods. (New) ▪ Designate landing locations for tree- removal projects. (New) ▪ Re-establish vegetation following wildfire or management activities. (Forest Plan) ▪ Locate and construct sanitary facilities, when needed, to minimize pollution and contamination of surface and ground water. (CMP) **Soi-S2:** Follow watershed approaches in the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy* (Wallowa County 1999) for roads, forests, and campground management. (New)	wherever feasible, and will not be revegetated if this alternative is feasible. Natural revegetation of disturbed sites is preferred. If nonnative vegetation is used, only those species demonstrated to not persist and spread will be allowed. **Soi-S4:** Use of fertilizers to accelerate tree growth will not be appropriate, although they may have limited use in restoration of heavily degraded soils or to establish vegetation on highly disturbed sites such as road cuts (refer to **Appendix J,** Soil note 1). Measures necessary to keep fertilizers out of streams must be stated and followed. **Soi-O3:** Where human management activities cause soil compaction, minimize compaction, enhance soil permeability, and restore or maintain soil structure. **Soi-S5:** Soil compaction shall not exceed a 10% increase in bulk density nor more than 10% of an activity area. The limit of 10% by area shall include allocations to permanently nonproductive uses such as roads, developed recreation sites and trails, which should not exceed 5%. The limit of no more than 10% increase in bulkdensity applies to all HCNRA lands. **Soi-S6:** Subsoiling may be carefully used to attempt to rehabilitate previously compacted areas but shall not be prescribed as mitigation to offset compaction from planned management activities. Ripping is not an appropriate method of treating compacted soils. **Soi-O4:** Except where unavoidable, soils will not erode except at geologic rates, and erosion will not exceed local rate of soil production on any one site or soil type unless it can be demonstrated that excess erosion is

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	periods. (New) ▪ Designate landing locations for tree-removal projects. (New) ▪ Re-establish vegetation following wildfire or management activities. (Forest Plan) ▪ Locate and construct sanitary facilities, when needed, to minimize pollution and contamination of surface and ground water (CMP) **Soi-G7:** Use natural barriers such as rocks, logs, and vegetation when possible to direct visitor use and prevent soil and water damage. Manage motorized access when and where necessary to prevent soil displacement. (CMP) **Soi-G8:** In order to maintain soil productivity and to prevent other unacceptable impacts, soil investigation should be completed on areas being considered for management activities. In most cases, Order III soil survey information will be suitable for project planning purposes. However, where Order III soil survey information is unavailable, or where more detailed information is desirable, on-site investigations by soil scientists should be completed and documented. (CMP) **Soi-G9**: Where appropriate and practicable, restore damaged soils to as near pre-impact conditions as possible. (New)	(New) ▪ Use native species, where practicable, when re-establishing vegetative ground cover following wildfire or management activities. (FSM 2600) ▪ Keep erosion control work current, when required; plan to complete all work prior to the first major rainfall event or snowfall event that would prevent achievement of project objectives. (Forest Plan) Use fertilizer, where and when appropriate, to accelerate vegetation establishment or growth. (New) **Soi-G4:** Maintain the appropriate quantity and distribution of fine organic matter (<3-inch diameter) and coarse woody material (>3-inch diameter) necessary to control erosion and to maintain nutrient recycling for long-term soil productivity. (New)		an entirely geological process. **Soi-O5:** Soil aquifer and hydrologic characteristics will be maintained. **Soi-S7:** The connection of soil to streams will be monitored, including the function and biota of the hyporheic zone adjacent to streams. **Soi-O6:** Maintain woody debris and other organic debris, including grass and forb stems, which are vital to soil health. Adequate cover and supply of dead and decaying organic material will be maintained to insure soil health. **Soi-S8:** On all human-management activities, a predetermined percent of ground cover after such activities will be large woody debris of a predetermined minimum diameter, or other organic debris (in nonforested locations) left to decay into organic material for soil nutrient replenishment (refer to **Appendix J,** Soil note 2). The percentage and size of woody or other organic debris will be pre-determined based on scientific evidence of sufficiency to allow protection and recovery of soil health. **Soi-S9:** Restore and protect soil organic matter (i.e., carbon source) based on levels of organic matter found on equivalent soil types in reference areas considered to have excellent soil organic conditions. **Soi-O7:** Minimize soil disturbance. **Soi-O8:** Implement appropriate education about the importance of soil and the connectedness of soil and the ecosystem for the public and all members of the HCNRA staff; importance and connectedness and care of soils for commercial operators on the HCNRA; and measurement and recognition of soil health and damage for HCNRA staff

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				and commercial operators. **Soi-S10:** Soil conditions will be monitored for maintenance or recovery of biotic health before, during, and every two years after a given recreational or commercial human activity is permitted. If the activity is not monitored for key indicators of soil health every two years, the permit will be revoked and the activity halted. **Soi-S11:** Incorporate in all alternatives within proposals for commercial and recreational human activities within the HCNRA a discussion of the nature, schedule, and costs of monitoring that will be required to comply with soil goals/objectives/standards and guidelines. The nature, schedule, and costs of monitoring will vary among the alternatives. **Soi-S12:** Permit-holders are responsible for documenting protection or recovery of soil biotic health in a measurable, reproducible manner every two years.

Wild and Scenic Rivers				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
The Wild Rapid River, the Wild and Scenic Imnaha River, and the Wild and Scenic Snake River would continue to be managed according to the Forest Plan as amended and the CMP. Standards and guidelines proposed in this section and management direction from other applicable resource sections in this appendix would supplement or modify direction as applicable. ***Sheep Creek, Granite Creek and the 4.2-mile lower Snake River section would continue to be managed as recommended wild and scenic river systems pending further administrative review, until released from consideration (Sheep Creek and Granite Creek under MA 7), or formally added to the river system by Congress (4.2-mile lower Snake River section under MA 8).***				***The following would supplement Forest Plan direction and replace the existing CMP.***
Note to the reader: ***Refer to existing management direction for wild and scenic rivers in the HCNRA:*** ▪ ***Wild Rapid River (CMP, pages 48-52)*** ▪ ***Imnaha Wild and Scenic River Management Plan (USDA 1993)*** ▪ ***Wild and Scenic Snake River Recreation Management Plan (USDA 1999)***	**Goal:** Manage wild and scenic rivers within the HCNRA in a manner compatible with protecting and enhancing the values for which the river was designated. (New)		**Goal:** Manage wild and scenic rivers within the HCNRA in a manner compatible with current management agreements, plans, and laws. (New)	**Goal 1:** Wild and Scenic Rivers (Snake, Imnaha, and Rapid Rivers) within the HCNRA will receive holistic protection as rare combinations of aquatic, terrestrial, and atmospheric habitats; rare combinations of outstanding and diverse ecosystems and parts of ecosystems (refer to Biologically Unique Habitat); and riparian habitat affected by entire watersheds (refer to Wildlife Habitat: Riparian). Recreational use of the Wild and Scenic Rivers will be primarily nonmotorized (refer to Access and Facilities and Recreation) and the mix of uses of the river corridor will be compatible with wilderness values. Human recreational uses of the Wild and Scenic Rivers will be managed so as to allow all users opportunities for solitude, wildlife viewing, and awareness of the connection of the river to wildlife. Recreational and commercial uses of all HCNRA Wild and Scenic Rivers will be permitted only as compatible with the wilderness values of the HCNRA. The outstanding qualities that caused these rivers to be included in the public sanctuary system of Wild and Scenic Rivers will be protected consciously against over-use by the public. The Snake Wild and Scenic Snake River corridor between Hells Canyon dam and Willow Creek will serve as a connector corridor for wildlife between designated Wilderness on the Idaho and Oregon side. South of Hells Canyon dam and north of Willow Creek, the River will serve as a buffer for the Hells Canyon Wilderness, with

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				users' influence (e.g., unnecessary noise) modulated so as to avoid intrusion upon the Wilderness.
	WSR-O1: Manage use of motorized and mechanical equipment to be compatible with the outstandingly remarkable values of each river designated recreation, scenic, and wild consistent with the *WSR Act*. (Public LURs) **WSR-O2:** Manage use of motorized and nonmotorized rivercraft on the Wild and Scenic Snake River in a manner compatible with the protection and enhancement of the river's outstandingly remarkable values consistent with the *WSR Act*. (Snake River Plan, Public LURs) **WSR-O3:** Perpetuate forested stands within wild and scenic rivers in "scenic" and "recreational" designations to protect and enhance the river's outstandingly remarkable values and to ensure compatibility with the primary objectives of the *HCNRA Act*. (Public LURs) **WSR-S1:** Manage forested areas within "wild" designations only to provide for recreational facilities, such as trails, to reduce the risk of hazard trees, or to manage for the desired ecosystem function in response to natural events. Activities would be consistent with the *WSR Act* and applicable management direction. (Public LURs) **WSR-O4:** Manage recreation and administrative facilities in a manner compatible with protecting and enhancing the values for which the river was designated. (New) **WSR-S2:** Limit the party size for backpackers and horsepackers within the Wild and Scenic section of the Snake River corridor to eight people and 16 stock animals to coincide with Hells Canyon Wilderness party sizes. Adjustments may be made to meet standards for water, fish, and social capacity, if monitoring and evaluation indicates a need for change. (CMP, New) **WSR-S3:** Evaluate any proposed water resources project in a designated wild and scenic river under the direction in (FSM 2354.7), and guidance provided by *Wild and Scenic Rivers Act: Section 7 Technical Report to the Interagency Wild and Scenic Rivers Coordinating Council* as updated (USDA 1997). This includes completing a *WSR Act* Section 7(a) determination for the Hells Canyon Complex (HCC) relicensing project. (Forest Plan, FSM 2354.7) ***Note to the reader*: Refer to Appendix K for a description of the outstandingly remarkable values designated for the Wild Rapid River.**			**WSR-O2:** Recognizing that a designated river can be "loved to death," limit human use within the Wild and Scenic River corridors as necessary to protect all outstanding and remarkable values for which the Wild and Scenic River designations were obtained. **WSR-S1:** Emergency, essential administrative, and research use of motorized watercraft will be allowed in the Wild and Scenic sections of the Snake River; and recreational use of eligible motorized boats will be allowed in the Scenic section of the Snake River at levels existing at the time of Congressional designation of the Snake Wild and Scenic River (when regulation of numbers was mandated) and to operation of nonmotorized river craft, compatible with the Snake River outstanding values (refer to **Appendix J,** Wild and Scenic Rivers note 1). **WSR-S2:** Establish speed, noise, and no-wake rules on all HCNRA Wild and Scenic rivers commensurate with wilderness values of the HCNRA. **WSR-S3:** Facilitate public monitoring of use of rivercraft by requiring all rivercraft to display a large permit number on the bow and stern. **Rec-S17:** Recreation will be nonmotorized within the Wild section of the Snake Wild and Scenic River, in keeping with the *WSR Act*, which establishes Wild designations as "vestiges of primitive America." Research, monitoring, emergency, and other administrative uses of motorized watercraft in the Wild section will be allowed on a case-by-case basis (refer to **Appendix J,** Recreation note 4). **Rec-S18:** Motorized use of the Scenic section of the Snake River will be

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				retained at 1975 levels of use, when the HCNRA was designated and control of motorized river use was mandated: Three launches per day each of private and commercial jet boats, with use constrained for protection and recovery of salmon, bald eagles, and other wildlife potentially harmed by jet boat use; and for retention of safety and recreational values of nonmotorized visitors within and adjacent to the Scenic section of the Snake River.

Biologically Unique Species, Habitats and Ecosystems				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
Reference Forest Plan (pages 4-30 through 4-31) for additional management direction.	***The following would supplement existing CMP and Forest Plan management direction for biologically unique species, habitats and ecosystems (pages 4-30 and 31, and 4-46 through 4-48); threatened, endangered, and sensitive species; and ecosystems.***			***The following would supplement Forest Plan direction and replace the existing CMP.***
	Goal: Ensure the maintenance and/or restoration of habitat for, and populations of, rare, endemic, or otherwise biologically unique plant species, rare combinations of aquatic, terrestrial, and atmospheric habitats, and the rare combinations of outstanding and diverse ecosystems and parts of ecosystems to ensure their continued functionality and sustainability. Manage habitat for the perpetuation and recovery of plants that are federally or state listed as threatened or endangered. Ensure that FS authorized and/or permitted actions do not contribute a trend towards federal listing of any species. (New)	**Goal:** Maintain or restore habitat to provide viable populations of rare and endemic plant species in the HCNRA. (New) Maintain and restore biologically unique and rare combinations of outstanding and diverse ecosystems and parts associated therewith to ensure their continued functionality and sustainability. (New) Maintain and restore biologically unique and rare combinations of aquatic, terrestrial, and atmospheric habitats. (New)	Same as Alternative B. (New)	**Goal 1:** The HCNRA as a whole will be recognized as biologically unique habitat, because so much native habitat has been left intact within the HCNRA, and because so much of its habitats have been lost in the bioregion. Its habitat components of native and ancient forests; native, bunchgrass, and perennial grasslands; native riparian habitat; beaches; alpine and steep canyon habitats; and biological corridors and connecting habitat for large and other native wildlife and fish are rare, critical, and/or dwindling within the Columbia River Basin and western Northern Rockies. Within the HCNRA, particular ecological components comprise additional forms of biologically unique habitat: 1. Habitat for "special" plant and animal species: Those native species that are endemic, sensitive, threatened, indicator, rare, and whose numbers have been in continuing decline within the HCNRA area (e.g., declining.) 2. Certain subpopulations of native species which may be abundant throughout the region, but which are adapted specifically to the HCNRA area (e.g., disjunct populations). 3. Certain high densities, sizes, or ages of specific native plants and animals that are otherwise not rare in the bioregion. 4. Habitat for species of plants and animals that form the basis of the traditional cultures of Tribes indigenous to the region. The broad biological uniqueness of the HCNRA will serve as a reminder of the custodial, public trust role played by the

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Bio-O: Protect unique biological features and peculiarities.	**Bio-O1:** Manage the HCNRA as an area of high biological diversity and endemism (refer to the **Glossary** for definition of "endemic organism"). (New) **Bio-O2:** Manage the HCNRA to ensure the maintenance and/or restoration of ecological function and sustainability of those species, habitats, and ecosystems that contribute to its biological uniqueness. (New) **Bio-O3:** Manage habitat and populations of all rare and endemic plant species to ensure their continued existence and viability in the HCNRA. (New)		**Bio-S1:** Adjust or remove species/plant communities/and plant associations listings if found to no longer meet definitions for biologically unique, rare, or endemic through survey and monitoring. (New)	HCNRA in maintaining crucial ecosystem structures, features, and functions and traditional cultural relationships within the Columbia River Basin and western Northern Rockies. Specific, threatened biologically unique components of HCNRA habitat (e.g., habitat for endemic, sensitive, threatened, indicator, rare, endangered and declining species, referred to in the Native Ecosystem Alternative as "special species"; or certain ages, adaptations, or sizes of bioregionally abundant species) will serve as a reminder of the unintended adverse consequences that numerous human activities have had on the integrity of the bioregion's native and sensitive ecosystems, species, and populations of plants and animals. Biologically unique HCNRA habitats and bioregional native ecosystem connectivity that are dwindling within the bioregion will be identified, acknowledged, protected and restored. Management plans for biologically unique habitat and special species within the HCNRA will be based on habitat recovery and enhancement.
	Bio-S1: During project-level planning, identify and locate, to the extent feasible, populations of endemic and rare plant species and unique plant communities. Consider the effects of proposed projects on populations of endemic plants, rare, and unique plant communities. Prescribe mitigation and protection for populations of endemic and rare plants and unique plant communities in project planning, as needed. Refer to **Appendix G - Detailed Vegetative Data** for a listing of endemic and rare plant species and unique plant communities.	**Rare and Endemic Plant Species** **Bio-S1:** During project-level planning, to the extent feasible, survey and document the location of populations of rare and endemic plant species, rare combinations of outstanding and diverse ecosystems and parts associated therewith; and rare combinations of aquatic, terrestrial, and atmospheric habitats. Consider the effects of proposed projects on populations of rare and endemic plant species, are combinations of outstanding and diverse ecosystems and parts associated therewith; and rare combinations of aquatic, terrestrial, and atmospheric habitats. Prescribe mitigation and protection		**BUH-O1:** Identify biologically unique habitat components within the HCNRA. **BUH-O2:** Utilizing existing data and scientifically prioritized ground-truthing, prepare a GIS-mapped survey of: (1)all known special species within the HCNRA, including maps and estimated population numbers; (2)Adaptations, sizes, ages, or high densities that may be uncommon for a species within the bioregion; and (3)Plant and wildlife habitats of particular importance to the traditional culture of Tribes indigenous to the bioregion. Identify significant gaps in existing data and prioritize which information is most crucial and which is most feasible to gather to fill these gaps.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	(New)	for populations of rare and endemic plant species, rare combinations of outstanding and diverse ecosystems and parts associated therewith; and rare combinations of aquatic, terrestrial, and atmospheric habitats. Refer to **Appendix G - Detailed Vegetative Data** for the criteria and a listing of rare and endemic plant species, rare combinations of outstanding and diverse ecosystems and parts associated therewith; and rare combinations of aquatic, terrestrial, and atmospheric habitats. (New)		**BUH-S1:** Prepare a draft inventory (even if only minimally ground-truthed) of all such special species within 2 years of the adoption of this CMP.
Threatened, Endangered, and Sensitive Plant Species **TES-O:** Determine the occurrence and distribution in the HCNRA of endangered and threatened plants and animals listed in the Federal Register. (CMP) **TES-O:** Provide protection of threatened and endangered species found in the HCNRA. To the extent practical, provide opportunities for them to expand their number and distribution. (CMP) **TES-O:** Maintain or enhance the well being of sensitive animal and plant species so that it does not become necessary to place on the threatened or endangered list. (CMP) **TES:** Ensure that legal and biological requirements of endangered, threatened, and sensitive plants and animals are considered prior to and during all management actions. (CMP) **TES:** Do nothing to jeopardize the continued existence of listed species or modify or destroy their critical habitat. (CMP) **TES:** Inventory the occurrence and distribution of endangered, threatened, and sensitive plant and animal species in the HCNRA. (CMP)	**Threatened, Endangered, and Sensitive Plant Species** **TES-O1:** Manage habitat and populations of federally listed threatened, endangered or proposed plant species to ensure their continued existence and enhancement of the species in the HCNRA. Implement activities that would facilitate removal of species from the federal threatened or endangered species list. (Forest Plan, FSM 2670) **TES-S1:** Continue to work with the USFWS to implement recovery plans for federally listed plants. Provide input to revisions of recovery plans, and carry out recommended actions in current and future recovery plans. Consult with USFWS for all new projects and programmatic decisions that may affect federally listed plant species. (Forest Plan, FSM 2670) **TES-S2:** Ensure that decisions and ongoing management activities do not negatively affect populations of federally listed plants. Search for populations of federally listed plants in potential habitat for new projects as part of the biological assessment	**TES-O1:** Manage habitat and populations of federally listed threatened, endangered or proposed plant species to ensure their continued existence and recovery in the HCNRA. Ensure that ongoing and new management actions do not jeopardize federally listed threatened, endangered or proposed plant species. Implement restoration and recovery activities that would facilitate removal of species from the federal threatened and endangered species list. (Forest Plan, FSM 2670) **TES-O2:** Manage habitat and populations of all FS sensitive plant species to ensure their continued existence and viability in the HCNRA. Ensure that all actions do not contribute to the species becoming federally listed threatened and endangered under the *ESA.* (Forest Plan, FSM 2670) **TES-O3:** Implement recovery plans for federally listed threatened, endangered or proposed plant species cooperatively with the USFWS. Contribute to revisions of recovery plans, and carry out recommended actions in recovery plans. (Forest Plan, FSM 2670) **TES-S1:** When evaluating ongoing and new actions, survey probable	**Threatened, Endangered, and Sensitive Plant Species** **Bio-O1:** Determine the occurrence and distribution in the HCNRA of endangered and threatened plants and animals listed in the Federal Register. (CMP) **Bio-O2:** Provide protection of threatened and endangered species found in the HCNRA. To the extent practical, provide opportunities for them to expand their numbers and distribution. (CMP) **Bio-O3:** Maintain or enhance the well being of sensitive animal and plant species. (CMP) **Bio-S1:** Ensure that legal and biological requirements of endangered, threatened, and sensitive plants and animals are considered prior to, and during, all management actions. (CMP) **Bio-S2:** Inventory the occurrence and distribution of endangered, threatened, and sensitive plant and animal species in the NRA. (CMP)	**BUH-S9:** Identify habitat within the HCNRA that could play crucial or significant roles in the restoration of bioregionally-rare species, including, but not limited to wolves, wolverine, lynx, grizzly bears, woodland caribou, martens, peregrine falcons, bald eagles, amphibians, reptiles, salmonids and other fish species, and invertebrates. **BUH-O3:** Identify crucial biological connectivity which the HCNRA does or could provide for bioregionally-rare species. **BUH-G1:** Prepare for the public a map of the HCNRA which illustrates its role within the bioregion as crucial or significant habitat for bioregionally-rare species. Insure that specific locations of rare plants or animals are not revealed if public knowledge of these locations could threaten the safety of the plants or animals. **BUH-O4:** Identify the barriers to and potential for protection and restoration of HCNRA special species and biologically unique habitat component. Identify essential functions and conditions of habitat of HCNRA special species and biologically unique habitat component; and HCNRA activities that may threaten each known HCNRA special species and biologically unique habitat component. Update as new information is gathered.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	process. Where populations occur, and there may be conflicts with FS projects or permitted actions, mitigate conflicts or modify the project to ensure protection of the site. (Forest Plan, FSM 2670) **TES-S3:** Conduct habitat improvement projects for federally listed species. These may include fencing, burning, closing roads, erecting signs to discourage off-road driving and/or introduction of noxious weeds, treatment of noxious weeds, plant propagation, or other actions. (New) **TES-S4:** Monitor population trends and habitat conditions for federally listed and proposed species. (Forest Plan) **TES-S5:** To reduce the risk of impacts to MacFarlane's four-o'clock from ongoing activities, implement a survey schedule for MacFarlane's four-o'clock. If additional populations are found during these surveys, re-initiate consultation with the USFWS and develop mitigations such that ongoing actions do not jeopardize threatened and endangered plant species. Conduct a similar analysis and develop a survey plan for any additional species if they become federally listed. (New) **TES-G1:** Consider reintroduction of federally listed species, in suitable, currently unoccupied habitat. (New) **TES-O2:** Manage habitat and populations of all Forest Service sensitive plant species to ensure their continued existence and viability in the HCNRA. Ensures that all actions prevent plant species from becoming federally listed under the *ESA*. (Forest	habitat for rare plants. Mitigate potential conflicts or modify the project to ensure the protection of rare plants and their associated habitat. (Forest Plan, FSM 2670) **TES-O4:** Conduct habitat improvement projects for federally listed species. These may include fencing, burning, closing roads, treatment of noxious weeds, plant propagation, or other actions. (New) **TES-S2:** Monitor population trends and habitat conditions for federally listed threatened, endangered or proposed plant species. (Forest Plan) **TES-S3:** Manage habitat and populations of FS sensitive species consistent with conservation agreements or conservation strategies. (New) In the absence of conservation agreements or strategies, manage sensitive plant species to ensure their continued viability in the planning area. (Forest Plan, FSM 2670) **TES-G1:** To achieve recovery plan goals, consider reintroduction of federally listed species, in suitable, currently unoccupied habitat. (New) **TES-G2:** Consider modifications to activities such as seasonal or permanent closures for roads, trails, exclusion of domestic livestock grazing, and modification of grazing plans where conflicts with the protection of rare plant species are identified. (Forest Plan)		**BUH-S3:** Prepare management guides (with goals, objectives, and standards and guidelines) for at least ten HCNRA special species or biologically unique habitat components each year. These guides may be revised at any time in light of new information. They will be renewed every five years. **BUH-S4:** Develop measurable indicators of (a) maintenance; (b) recovery; and (c) degradation of HCNRA special species and biologically unique habitat component so that monitoring results can be interpreted objectively. Indicate those features that identify a habitat as being source or sink for special species.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Plan, FSM 2670) **TES-S6:** Manage habitat and populations of sensitive species consistent with signed conservation agreements and conservation strategies. Develop and implement these documents for high priority sensitive species. Priorities would be established based on factors such as global and local rarity, level of threats, and management conflicts. In the absence of signed conservation agreements or strategies, manage all sensitive plant species to ensure the continued viability of populations across in the planning area. (Forest Plan, FSM 2670) **TES-G2:** Determine through inventory, the distribution and status of sensitive plant species using professional botany inventory methods. Survey potential habitat for sensitive species for all new projects and ongoing actions that have the potential to negatively impact sensitive plant species. Where the species occur, and there may be conflicts with projects or permitted actions, develop mitigation or modify the project to ensure protection of the site. Document distribution and population status in a corporate database. (CMP, Forest Plan, FSM 2670) **TES-G3:** Consider seasonal or permanent closures for roads, trails, or other areas, and/or modification of grazing plans, where conflicts with the protection of endangered, threatened, proposed or sensitive plant species are identified. (Forest Plan, FSM)			

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	TES-G4: Consider seasonal or permanent exclusion of domestic livestock in areas where grazing conflicts with management objectives for known populations of sensitive species. Restrict the location and/or design of water developments and salt or other supplement placement to areas where they would not negatively impact sensitive plant populations. (New)			
	Biologically Unique Plant Communities and Associations **BUC-O1:** Maintain biologically unique plant communities and plant associations in an ecologically functioning sustainable condition. (New) **BUC-S1:** Document and map biologically unique plant communities and plant associations when they are encountered during site-specific activities such as range analysis, rare plant surveys, and vegetation examinations. (New) **BUC-G1:** Consider selecting biologically unique plant communities and plant associations as key utilization areas in range analysis where applicable and appropriate. (New)	**Biologically Unique and Rare Combinations of Outstanding and Diverse Ecosystems** **BUC-O1:** Maintain biologically unique and rare combinations of outstanding and diverse ecosystems and parts associated therewith in an ecologically functioning sustainable condition. (New) **BUC-S1:** Document and map biologically unique and rare combinations of outstanding and diverse ecosystems and parts associated therewith when they are encountered during site-specific activities such as range analysis, rare plant surveys, and vegetation examinations. (New) **BUC-G1:** Consider selecting biologically unique and rare combinations of outstanding and diverse ecosystems and parts associated therewith as key utilization areas in range analysis where applicable and appropriate. (New) **BUC-O2:** Outside Wilderness, maintain rare combinations of outstanding and diverse ecosystems and parts associated therewith or manage to attain the PNC within the HRV. (New)	**Biologically Unique Plant Communities and Associations** **BUC-O1:** Maintain biologically unique plant communities and plant associations in a healthy condition. (New) **BUC-S1:** Document and map biologically unique plant communities and plant associations when they are encountered during range analysis, rare plant surveys, and timber stand examinations. (New)	**BUH-S5:** Identify those uncommon or declining special native species within the HCNRA that could, with restoration of habitat, expand their population numbers, and indicate conditions and actions (or cessation of activities) that would allow this to happen. When proposing an activity (e.g., permit renewal, vegetation management), explicitly consider the potential for expanding the population numbers of any of these species potentially involved. **BUH-S6:** No proposed action that may adversely impact soil, water, vegetation, atmospheric habitat, or any other aspect of potential habitat of any HCNRA special species or biologically unique habitat component will be undertaken or permitted in the absence of at least a temporary species management guide for that species within the HCNRA as part of the larger bioregion. **BUH-S6:** Prepare a public, triennial report on the condition of biologically unique habitat components in the HCNRA, including discussion of degradation or restoration of special species' populations and habitat within the HCNRA.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Bluebunch wheatgrass/Wyeth's buckwheat Plant Association **BUC-O2:** Outside Wilderness, maintain areas with the bluebunch wheatgrass/Wyeth's buckwheat plant association so they continue to support approximately the same species composition and occupy approximately the same acreage and spatial distribution across the HCNRA as at present. (New) **BUC-S2:** Restoration efforts on the bluebunch wheatgrass/ Wyeth's buckwheat plant association sites would involve natural succession as enhanced by limitations on human-related impacts. No artificial regeneration or enhancement is needed, practicable, or desirable due to the steep slopes and skeletal soils on which these sites occur. (New) **BUC-G2:** Continue to manage livestock grazing to maintain or enhance the bluebunch wheatgrass and Wyeth's buckwheat components of the communities. (New)	Bluebunch wheatgrass/Wyeth's buckwheat Plant Association **BUC-S2:** Restoration efforts on the bluebunch wheatgrass/Wyeth's buckwheat plant association sites would involve natural succession as enhanced by limitations on human-caused impacts. (New) **BUC-G2:** Grazing by domestic livestock would be discouraged on these sites. (New)		
	Douglas' buckwheat/Sandberg's bluegrass Plant Community Type **BUC-O3:** Outside Wilderness, maintain the current stability of Douglas' buckwheat/Sandberg's bluegrass plant communities in approximately their current spatial distribution and acreage extent. Ensure that management practices on these communities do not lead to further soil erosion or damage to the Douglas' buckwheat or Sandberg's bluegrass. (New) **BUC-S3:** Restoration efforts on Douglas' buckwheat/Sandberg's bluegrass sites will involve only natural succession as enhanced	Douglas' buckwheat/Sandberg's bluegrass Plant Community Type **BUC-O3:** Ensure that management practices on these communities do not lead to further soil erosion or damage to the Douglas' buckwheat/Sandberg's bluegrass. (New) **BUC-S3:** Restoration efforts on Douglas' buckwheat/Sandberg's bluegrass sites will involve only natural succession as enhanced by limitations on human-caused impacts. (New) **BUC-S4:** Practice deferred rotation grazing systems to allow for soil drying and seed set. (New)		**BUH-S7:** A proposal to undertake or continue a recreational or commercial activity that has been identified as potentially threatening to biologically unique habitats may not take place if (a) the specified habitat monitoring schedule(e.g., annual or biennial monitoring) has been skipped for more than one reporting period; or (b) monitoring results indicate the population or habitat of an HCNRA special --- species is not being maintained or increased; (c) adherence to the relevant species or habitat monitoring schedule for the previous monitoring period; and d) monitoring results that indicate the populations or habitats of HCNRA special species are being maintained or increased. **BUH-G2:** Establish appropriate time

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	by limitations on human-related impacts. No artificial regeneration or enhancement is needed or desirable due to the shallow nature of the soils on which these sites occur. (New) **BUC-G3:** Avoid or minimize management effects to Douglas' buckwheat/Sandberg's bluegrass communities when soils are saturated. Work with state agencies to manage big-game populations to minimize effects of early season wildlife use on these sites. Expect that changes in successional status toward the PNC for the sites would lead to increases in Sandberg's bluegrass. Biological soil crust would also increase with less trampling by elk and domestic livestock. (New)	**BUC-G3:** Avoid or minimize management effects to Douglas' buckwheat/Sandberg's bluegrass communities when soils are saturated. Work with state agencies to manage big-game populations to minimize effects of early season wildlife use on these sites. (New)		intervals for monitoring of each special species and biologically unique habitat component. **BUH-S8:** Each alternative for a proposed human activity which could affect vegetation, soil, water, atmospheric habitat, and other wildlife resources will include a discussion of the potential of the activity for degradation, maintenance, or restoration of biologically unique habitat components, HCNRA special species, and bioregionally-rare species. **BUH-G3:** Utilize the skills, resources, knowledge, and voluntary efforts of citizens and scientists in appropriate activities to identify, monitor, and protect unique habitat components within the HCNRA. **BUH-G4:** Develop procedures for efficiently utilizing volunteers (including students, graduate students, hunters, community residents, retired and other scientists) to inventory and monitor special species and biologically unique habitat components. **BUH-G5:** Prepare public education materials for HCNRA users, visitors, schools, and other public programs, which explain why particular HCNRA habitats are considered biologically unique and the potential for protection, restoration, or loss of such habitats and special species within the HCNRA and the bioregion. **BUH-S10:** Place higher priority on the recovery and enhancement of biologically unique and special species habitats than on specific, permitted commercial and recreational human activities (e.g., livestock grazing, motorized recreation) that may adversely affect such habitats, or which may prevent continuous recovery of the habitats.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
***Note to the reader*: Refer to the RNAs section of this appendix for further information on RNAs.**	Bitterbrush/bluebunch wheatgrass Plant Association **BUC-O4:** Outside Wilderness, maintain areas with bitterbrush/ bluebunch wheatgrass plant association so they continue to support approximately the same species composition and occupy approx. the present acreage and spatial distribution. (New) **BUC-S4:** Outside Wilderness, evaluate the effects of seasonality and intensity of fire on the persistence and distribution on bitterbrush, and the consequences to other resource values when featuring this species over other objectives. (New) **BUC-G4:** Outside Wilderness, recognize that ground scarification propagates bitterbrush more readily than fire. In management of wildland fires, to the extent possible, protect these areas from moderate or high intensity fire. If PF is used in the area, preference should be given to low intensity early spring burns when there is higher potential for current or subsequent periods of wet soil conditions. (New) **BUC-G5:** Work with state wildlife management agencies to manage the impacts to bitterbrush related to fall/winter/ spring use by big game, primarily deer. Use exclosures to help monitor use/nonuse of bitterbrush. (New) **BUC-G6:** Manage livestock grazing in bitterbrush/bluebunch wheatgrass plant associations to limit browsing by livestock by controlling the timing of use, intensity, duration, and frequency. (New)	Bitterbrush/bluebunch wheatgrass Plant Association **BUC-S5:** Outside Wilderness, evaluate the effects of seasonality and intensity of fire on the persistence and distribution on bitterbrush, and the consequences to other resource values when featuring this species over other objectives. (New) **BUC-G4:** In management of fires, to the extent possible, protect these areas from moderate or high intensity fire. If PF is used in the area, preference should be given to low intensity very early spring burns when there is higher potential for current or subsequent periods of wet soil conditions. (New) **BUC-G5:** Work with state wildlife management agencies to manage the impacts to bitterbrush related to fall/winter/spring use by big game, primarily deer. Use exclosures to help monitor use/nonuse of bitterbrush. Do not encourage additional numbers of big game within areas containing this plant association. Where feasible, develop alternate sources of fall and spring feeding areas with highly palatable forage sources to attract big game away from these areas. (New) **BUC-G6:** Manage livestock grazing in bitterbrush/bluebunch wheatgrass plant associations to limit browsing by livestock by controlling the timing of use, intensity, duration, and frequency. Do not encourage livestock grazing in these associations after the period when the bitterbrush/bluebunch wheatgrass begins to lose palatability and livestock begin to browse on shrubs. (New)		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Buckwheat/Oregon Bladderpod Plant Association **BUC-O5:** Outside Wilderness, maintain areas that support buckwheat/Oregon bladderpod plant associations so they continue to support approximately the same species composition and occupy approximately the same acreage and spatial distribution as at present. (New) **BUC-S5:** Buckwheat/Oregon bladderpod plant associations would be classified as nonrange and unsuitable for grazing. No livestock capacity would be calculated for these acres, but they may receive incidental use. (New) **BUC-G7:** Since buckwheat/ Oregon bladderpod plant associations are limited to basaltic outcroppings with an extremely low forage production potential, there is no need for grasslands management operational guidelines. (New) **BUC-G8:** Restoration efforts on buckwheat/Oregon bladderpod sites would involve only natural succession as enhanced by limitations on human-related impacts. No artificial regeneration or enhancement is needed or desirable due to the inherent low productivity potentials on which these sites occur. (New)	Buckwheat/Oregon Bladderpod Plant Association **BUC-S6:** Buckwheat/Oregon bladderpod associations would be classified as unsuitable for grazing, but they may receive incidental use. (New) **BUC-G7:** Restoration efforts on buckwheat/Oregon bladderpod sites would involve only natural succession as enhanced by limitations on human-caused impacts. No artificial regeneration or enhancement is needed or desirable due to the inherent low productivity potentials on which these sites occur. Do not encourage ground-disturbing activity that may disrupt the natural erosion pavement. (New)		
	Sand Dropseed Plant Association **BUC-O6:** Maintain or enhance sand dropseed plant associations found within the Bill's Creek research natural area (RNA). Outside this RNA and outside Wilderness, provide for the maintenance of these plant	Sand Dropseed Plant Association **BUC-O4:** Maintain or enhance sand dropseed plant associations found within the Bill's Creek RNA. On sites it has invaded, strive for a return to their PNC. (New) **BUC-S7:** Manage Bill's Creek RNA		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	associations on sites where it naturally occurs without disturbance. On sites it has invaded, strive for a return to their PNC. (New) **BUC-S6:** Manage Bill's Creek RNA to maintain sand dropseed in approximately its current distribution and acreage. (New) **BUC-G9:** Recognize that periodic light-to-moderate early spring grazing and/or low intensity fire is more beneficial to the dominance of these sites by the sand dropseed than grazing exclusion, high intensity fire, or the disturbance associated with heavy summer season grazing. (New)	to maintain sand dropseed in approximately its current distribution and acreage. (New) **BUC-G8:** Outside Wilderness, recognize that periodic light-to-moderate early spring grazing and/or low intensity fire is more beneficial to the dominance of these sites by the sand dropseed than grazing exclusion, high intensity fire, or the disturbance associated with heavy summer season grazing. Where this plant association has invaded native bluebunch wheatgrass sites, manage livestock grazing to favor bluebunch wheatgrass over sand dropseed. (New)		
	Wallowa Lewisia Rim Plant Community Type **BUC-O7:** Outside Wilderness, maintain Wallowa Lewisia rim communities so they continue to support approximately the same species composition and occupy approximately the same present acreage and spatial distribution. (New) **BUC-S7:** Classify the Wallowa Lewisia rim communities as nonrange and unsuitable for grazing. No livestock capacity would be authorized, but sites may receive incidental use. (New) **BUC-G10:** Because Wallowa Lewisia rim communities generally occur on rocky rims and outcroppings with sparse vegetation, fire is not likely to burn hot through them. Therefore, there is no need to protect it from wildfire, prescribed natural fire, or PF being conducted in the general area. Most fire regimes favor	Wallowa Lewisia Rim Plant Communiy Type **BUC-S8:** Classify the Wallowa Lewisia rim community type as unsuitable for grazing, but sites may receive incidental use. (New) **BUC-G9:** Do not locate roads or road pullouts on rim areas where this community occurs. (New)		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Sandberg's bluegrass and onespike oatgrass which are natural associates in the community type. Do not locate roads or road pullouts on rim areas where this community occurs. (New)			
	Subalpine fir/fool's huckleberry Plant Association **BUC-O8:** Maintain areas with subalpine fir/fool's huckleberry plant association by allowing natural processes to occur in MAs 4 and 9, but do not plan management activities to enhance or expand. In MA 11, allow very-early and early-seral stages represented by lodgepole pine at levels within HRV, and allow mid-seral stages represented by grand fir and Engelmann spruce at levels within HRV. (New) **BUC-S8:** There would be no active management strategies proposed for subalpine fir/fool's huckleberry plant associations in MA 4 or 9. Forested vegetation management would be by individual tree and small group selection where this type occurs in MA 11 on the Idaho side of the Snake River in the headwaters of Kirkwood and Lost Chance Creeks. (New) **BUC-G11:** In project planning recognize the regeneration difficulty and soil compaction potential for subalpine fir/fool's huckleberry on moist, cold sites. (New)	Subalpine fir/fool's huckleberry Plant Association **BUC-O5:** Maintain areas with subalpine fir/fool's huckleberry plant association by allowing natural processes to occur in MAs 4 and 9, but do not plan management activities to enhance or expand. In MA 11, allow very-early and early-seral stages represented by HRV, and allow mid-seral stages represented by grand fir and Engelmann spruce at levels within HRV. (New) **BUC-S9:** There would be no active management strategies proposed for subalpine fir/fool's huckleberry associations in MA 4 or 9. Forested vegetation management would be by individual tree and small group selection where this type occurs in MA 11 on the Idaho side of the Snake River in the headwaters of Kirkwood and Lost Chance Creeks. (New) **BUC-G10:** In project planning recognize the regeneration difficulty and soil compaction potential for subalpine fir/fool's huckleberry on moist, cold sites. (New)		
	Ponderosa pine/Idaho fescue and Ponderosa pine/bluebunch wheatgrass Plant Associations **BUC-O9:** Outside Wilderness, maintain or enhance the spatial distribution and/or acreage occupied by ponderosa pine/Idaho fescue and ponderosa	Ponderosa pine/Idaho fescue and Ponderosa pine/bluebunch wheatgrass Plant Associations **BUC-O6:** Maintain or enhance the spatial distribution and/or acreage occupied by ponderosa pine/Idaho fescue and ponderosa pine/bluebunch wheatgrass plant		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	pine/bluebunch wheatgrass plant associations in the Little Granite RNA within the extent of the PNC site potentials. There is no need for conscious effort to enhance or expand populations outside Little Granite RNA. (New) **BUC-G12:** Outside Wilderness, recognize and manage for high frequency, low intensity fire regimes which have historically occurred in ponderosa pine/Idaho fescue and ponderosa pine/bluebunch wheatgrass plant associations during site-specific planning. (New) **BUC-G13:** Limit grazing by domestic livestock in ponderosa pine/Idaho fescue and ponderosa pine/bluebunch wheatgrass plant associations when soils are saturated. Management would be designed to favor the Idaho fescue and/or bluebunch wheatgrass as appropriate through control of the timing, intensity, duration, and frequency of livestock use. Use prescribed natural fire to control Douglas-fir succession on micro-sites within these plant associations. (New)	associations in the Little Granite RNA within the extent of the PNC. There is no need for conscious effort to enhance or expand populations outside Little Granite RNA. (New) **BUC-G11:** Outside Wilderness, recognize and manage for high frequency, low intensity fire regimes which have historically occurred in ponderosa pine/Idaho fescue and ponderosa pine/bluebunch wheatgrass plant associations during site-specific planning. (New) **BUC-G12:** Limit grazing by domestic livestock in ponderosa pine/Idaho fescue and ponderosa pine/bluebunch wheatgrass plant associations when soils are saturated. Management would be designed to favor the Idaho fescue and/or bluebunch wheatgrass as appropriate through control of the timing, intensity, duration, and frequency of livestock use. Manage grazing to ensure that forage utilization standards are not exceeded in order to ensure plant and soil health and adequate fine fuels for natural fire to carry. Encourage distribution of livestock by salting and herding to avoid concentration areas. Use prescribed natural fire to control Douglas-fir succession on micro-sites within these plant associations. (New)		
	<u>Quaking aspen Plant Community Type</u> **BUC-O10:** Outside Wilderness, enhance and expand quaking aspen community types for scenery, wildlife habitat, ecological function, and biodiversity purposes on sites that show evidence of current or past occurrence. (New) **BUC-S10:** In MA 4 natural fire will determine the role of quaking aspen communities. In MAs 8, 9, and 12 use fire as the primary method to propagate aspen. In MAs 7, 10, 11 and 16, use PF, harvest of encroaching conifers, and cutting of mature aspens for the purpose of releasing the sprouts from the inhibition effects of the mature parent plants. (New) **BUC-G14:** Use site-specific analyses to determine propagation methods for quaking aspen communities, and to determine needs for and methods of			

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	protection of seedling stands from grazing ungulates. (New)			
		BUC-G13: Do not encourage livestock grazing in these sites. Where livestock browsing is determined to be a factor in limiting reproduction and health of these stands, consider fencing or other means to exclude livestock. (New) **BUC-G14:** Outside Wilderness, where big-game browsing is determined to be a factor in limiting reproduction and health of these stands, consider fencing or other means to exclude the animals. (New)		
	Netleaf hackberry/bluebunch wheatgrass Plant Association **BUC-O11:** Three proposed RNAs--Bob Creek, Pleasant Valley, and Alum Beds--contain populations of hackberry communities. Maintain or enhance hackberry plant associations found in these proposed RNAs. Strive to reduce animal and human pressures on these communities for their benchmark status for the type. (New) **BUC-S11:** Manage Bob Creek, Pleasant Valley, and Alum Beds RNAs to maintain or enhance their hackberry associations. For RNAs that could have domestic livestock grazing, no livestock capacity would be calculated for these acres, but they may receive incidental use. (New) **BUC-G15:** Recognize, during recreation planning, that human pressure on RNAs containing the netleaf hackberry/bluebunch wheatgrass plant association can lead to the wheatgrass component directly under hackberry trees being replaced with annual vegetation species. (New)	Netleaf hackberry/bluebunch wheatgrass Plant Association **BUC-O7:** Three proposed RNAs--Bob Creek, Pleasant Valley, and Alum Beds--contain populations of hackberry communities. Maintain or enhance hackberry plant associations found in these proposed RNAs. Strive to reduce animal and human pressures on these communities for their benchmark status for the type. (New) **BUC-S10:** Manage Bob Creek, Pleasant Valley, and Alum Beds RNAs to maintain or enhance their hackberry associations. Livestock grazing is unsuitable in these RNAs but may receive incidental use. (New) **BUC-G15:** Do not encourage livestock use in these plant associations. Where past activities have resulted in an understory of annuals, consider restoration activities to restore the native understory. (New) **BUC-G16:** Recognize, during recreation planning, that human uses of RNAs containing the netleaf hackberry/bluebunch wheatgrass plant association can lead to the wheatgrass component directly under hackberry trees being replaced with		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		annual vegetation species. Do not encourage recreational camping, driving, etc. in these communities. (New)		
		Giant wildrye Plant Community Type **BUC-O8:** Maintain or enhance the giant wildrye plant community type found within the Pleasant Valley RNA**.** Outside this RNA, provide for the maintenance of the community type. (New) **BUC-S11:** Manage Pleasant Valley RNA to maintain or enhance giant wildrye in approximately its current distribution and acreage. (New) **BUC-S12:** If areas with giant wildrye are grazed, limit late winter, early spring use periods and ensure a residual stubble height of a least 8 inches. (New) **BUC-G17:** Outside Wilderness, consider the use of giant wildrye for revegetation/restoration efforts in any of the bottoms near drainages and many of the homesteaded benchlands. (New) **BUC-G18:** Continue to manage livestock grazing to maintain or enhance the giant wildrye plant community type. Recognize when giant wildrye communities are overgrazed annual plants invade and become prominent (i.e., bedstraw (*galium aparine*), miners lettuce (*montia perfoliata*), and annual bromes). (New) **BUC-G19:** Recognize that giant wildrye survives severe to light burns well. (New)		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		Spiny green-bush/bluebunch wheatgrass Plant Association **BUC-S13:** Manage the Alum Beds RNA (proposed) to represent a natural area established to benchmark this community. (New)		
		Curlleaf mountain-mahogany Plant Community Type **BUC-O9:** Maintain or enhance the curlleaf mountain-mahogany plant community type found within the Pleasant Valley RNA. (New) **BUC-S14:** Manage Pleasant Valley RNA to maintain or enhance the curlleaf mountain-mahogany plant community type in approximately its current distribution and acreage. (New) **BUC-G20:** Outside Wilderness, recognize that mountain mahogany suffers high mortality from fire; however, light burns along the ground surface assist in germination of seedlings. In fire planning, strive to protect these areas from moderate or high intensity burns. Careful use of low intensity, cool season, ground fires may be considered. (New) **BUC-G21:** Do not try to increase big-game presence in areas containing mountain mahogany. If feasible, use practices to enhance forage quality in order to encourage big-game use away from these sites. (New) **BUC-G22:** Do not encourage livestock distribution into these areas. (New)		
		Mountain big sagebrush/Idaho fescue Plant Association **BUC-S15:** Manage livestock grazing by controlling the timing of use, intensity, duration, and frequency in the mountain big sagebrush/Idaho fescue plant association to limit invasion of sod-forming mats of Kentucky bluegrass.		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		(New) **BUC-G23:** Outside Wilderness, recognize that mountain big sagebrush can be killed by severe burns but community vigor is enhanced when the shrubs are burned by light to moderate fires. In fire planning, strive to protect these areas from high intensity burns. Careful use of moderate or low intensity ground fires may be considered to sustain the health of this plant association. (New)		
		<u>Slender sedge Plant Community</u> **BUC-O10:** Manage the slender sedge plant community at Duck Lake to ensure its ecological function and sustainability. (New) **BUC-S16:** The Duck Lake slender sedge plant community is unsuitable and livestock will not be authorized. Restrict human access to this site (the Duck Lake peat bogs) through provision of an elevated access and restriction of all foot traffic off the "boardwalk". Allow no vehicle use within 300 feet of the bog. (New)		
		Biologically Unique and Rare Combinations of Aquatic, Terrestrial, and Atmospheric Habitats. <u>Wet Cliffs</u> **BUC-S17:** Ensure that spring developments, water diversions, and other human-caused activities do not alter the hydrologic regime of wet cliff habitats. Before conducting activities that may impact this habitat type, conduct field surveys and design projects so that they do not negatively impact either the water regime or the species composition of wet cliffs. (New) **BUC-G24:** Where roads or other human-caused impacts impinge on		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		these communities, ensure that they are disturbed as little as possible during maintenance or other activities. (New) <u>Caves</u> *Refer to management direction specific to cave management contained on pages 4-46 through 4-48 of the Forest Plan.* <u>Cliffs and Talus Slopes</u> **BUC-S18:** Do not alter cliffs and talus slopes. (New) **BUC-G25:** Through user education programs, inform forest users of the importance of minimizing impacts and disturbances that may reduce the habitat values of cliffs and talus slopes. (New) <u>Natural Salt Licks</u> **BUC-O11:** Do not encourage human activities that may impact natural salt licks. (New) **BUC-S19:** Provide adequate salt for livestock grazing in pastures where natural salt licks exist to ensure that livestock are kept away from the natural salt licks. (New) <u>River Beaches</u> **BUC-O12:** Maintain or restore sandbars, river terraces, and other fluvial and alluvial features in the Wild and Scenic Snake River corridor. (New) **BUC-S20:** Actively participate in the HCC relicensing to develop terms and conditions that address maintenance or restoration of sandbars, river terraces, and fluvial and alluvial features. (New) **BUC-G26:** Through user education		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		programs, inform river users of the importance of minimizing impacts and disturbances that may exacerbate erosion and/or slow restoration efforts (New)		
		Springs, Seeps, and Other Wetlands **BUC-O13:** Ensure that management activities provide for protection, retention, or enhancement of water quality and quantity from natural springs, seeps and other wetlands. (New) **BUC-S21:** Where springs are developed for any purpose, ensure that the water source is protected from trampling damage, the trough or other use point is located away from the spring and watercourse, and that overflow water remains at the spring source (use of float values) or is transported back to the natural channel. (New) **BUC-G27:** Undeveloped springs impacted by livestock, big game, recreationists, etc. to the degree that their functionality is being impaired, should be protected or managed to restore functionality. Protection or management may include fencing, placement of large woody debris, or restriction of activities as needed. (New) ***Note to the reader:*** ***Refer also to management direction listed in this appendix for Riparian/Aquatic Habitat.***		
Research Natural Areas				
Reference Forest Plan (pages 4-83 through 4-85) for additional management direction.	***Management direction specific to RNAs is contained on pages 4-83 through 4-85 of the Forest Plan. The following would supplement Forest Plan management direction:***			
RNA: Recommend the following areas to be classified as RNAs: Alum Beds, Basin Creek, Bill's Creek, Bob	**Goal:** Manage RNAs to preserve significant natural ecosystems for comparison with those influenced	**Goal:** Manage RNAs to preserve significant natural ecosystems for comparison with those influenced by	Same as Alternative B.	**Goal 1:** Manage RNAs and proposed RNAs to preserve significant natural ecosystems for comparison with those

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Creek, Duck Lake, Lake Fork, Lightning Creek, and Pleasant Valley. Little Granite Creek currently has an establishment report, but no management plan. These areas are located on maps at the National Forest Headquarters in Baker City. (Forest Plan)	by humans; for provision of ecological and environmental studies; for preservation of gene pools for threatened and endangered plants and animals and for protection of biologically unique plant communities. (FSM 4063)	humans; for provision of ecological and environmental studies; and for protection of biologically unique and rare combinations of outstanding and diverse ecosystems and parts of ecosystems associated therewith. Protect RNAs against activities that directly or indirectly modify ecological processes and functions. The prime consideration in managing RNAs is maintenance of unmodified conditions and natural processes (FSM 4063.3).		influenced by humans; for provision of ecological and environmental studies, and for preservation of gene pools for declining native plants and animals.
	RNA-O1: Manage all proposed RNAs as if they have been formally established until such time that establishment reports and management plans are completed. Once each area has been formally designated, promote research and educational opportunities, while maintaining the integrity of the ecosystem. (Forest Plan) **RNA-O2:** Conduct botanical and biological surveys for all proposed RNAs to identify any threatened, endangered, or sensitive plant or animal populations and to identify any biologically unique plant species or habitats discovered. (New) **RNA-O3:** Planning and implementation would continue on proposed RNAs identified in the Forest Plan for the following areas: Alum Beds, Basin Creek, Bill's Creek, Bob Creek, Duck Lake, Lake Fork, Lightning Creek, and Pleasant Valley. Little Granite Creek currently has an establishment report, but no management plan. (Forest Plan, FSM) **RNA-S1:** Protect proposed RNAs from degrading levels of disturbance to those elements for which they were proposed. (Forest Plan) **RNA-S2:** Fuelwood cutting,	**RNA-O1:** Manage all proposed RNAs as if they have been formally established until such time that establishment reports and management plans are completed. Promote research and educational opportunities, while maintaining the integrity of the ecosystem. (Forest Plan) **RNA-O2:** Conduct botanical and biological surveys for all existing and proposed RNAs to identify any threatened and endangered, proposed, or sensitive plant or animal populations and to identify any biologically unique and rare combinations of outstanding and diverse ecosystems and parts of ecosystems associated therewith. (New) **RNA-O3:** Complete establishment reports for the following proposed RNAs: Alum Beds, Basin Creek, Bill's Creek, Bob Creek, Duck Lake, Lake Fork, Lightning Creek, and Pleasant Valley. Complete management plans for the areas that are established as RNAs. Little Granite Creek currently has an establishment report, but no management plan). (Forest Plan, FSM) **RNA-S1:** Protect established and proposed RNAs from human-caused disturbances that degrade their qualities. (Forest Plan) **RNA-S2:** Prohibit fuelwood cutting,		**RNA-S1:** Protect proposed RNAs from human-caused disturbance to those elements for which they were proposed. In keeping with the RNA Goal, the human influence of livestock grazing will not be present. **RNA-S2:** Recreation use will be analyzed and reduced as necessary to protect the RNAs in keeping with the RNA Goal. **RNA-G1:** Evaluate the expansion of the RNA system based on recommendations from establishment records, and/or proposals generated from scientific research, and/or proposals from the Forest RNA Coordinator. Continue the search to add new areas to the system for plant communities and riparian and wetland elements not currently in RNAs or proposed RNAs.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	commercial mushroom harvesting, and commercial collection of "special forest products" are prohibited in proposed and established RNAs. (New) **RNA-S3:** Livestock grazing use would be analyzed and mitigations developed if deemed necessary. Changes in grazing patterns, intensity, and developments would be to minimize domestic livestock grazing impacts on proposed and established RNAs. No livestock grazing, not currently permitted, would be authorized within any RNA. (Forest Plan, FSM, New) **RNA-G1:** Cooperate with state wildlife agencies to ensure wild ungulate use is within an acceptable range of impacts on RNAs. (New) **RNA-S4:** Recreation use would be analyzed and mitigations developed if deemed necessary. No increases in recreational developments, or improvement in existing developments would be programmed except for the Duck Lake RNA which will require evaluation of mitigation to protect it from recreational impacts during the development of the RNA establishment report. (New) **RNA-S5:** New transportation and utility corridors are excluded from proposed and existing RNAs. (New) **RNA-S6:** PF plans would consider the effects of fire on all proposed RNAs. RNAs would be protected from fire suppresion impacts when it is deemed that fire would enhance the vegetative compostion, and protection actions would not compromise	commercial mushroom harvesting, and commercial collection of "special forest products" in proposed and established RNAs. (New) **RNA-S3:** Establish acceptable casual or incidental domestic livestock grazing in established and proposed consistent with the management prescription for the RNA (FSM 4063.3). Develop mitigations to livestock grazing if necessary. Prohibit additional livestock grazing. Prohibit salting or water developments. (Forest Plan, FSM 4063, New) Monitor domestic livestock grazing in the Basin Creek, Lake Fork, and Duck Lake RNAs. Implement changes to the grazing system or discontinue use If grazing is determined to causing degrading levels of impacts. (New) **RNA-G1:** Cooperate with state wildlife agencies to ensure wild ungulate use is within an acceptable range of impacts on RNAs. (New) **RNA-S4:** Evaluate recreation use in all established and proposed RNAs. Implement changes in management if it is determined that recreation use is causing unacceptable impacts to the RNA. There will be no new recreational developments, or expansion of existing developments, in proposed or existing RNAs except Duck Lake proposed RNA, where recreational developments currently exitst. Evaluate the Duck Lake recreational developments and determine mitigation in the RNA establishment report and management plan. (New) **RNA-S5:** Exclude new transportation and utility corridors from proposed and existing RNAs.		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	fire fighter safety or suppression objectives. (New) Outside Wilderness, RNA goals would be considered in prescribed natural fire planning and decisions. Fire should be returned, through management, to assume its natural role, intensity, and periodicity in the included plant communities of the proposed RNAs. (New) **RNA-S7:** Develop establishment records for all proposed RNAs pursuant to FSM 4063. Establishment records would ensure the achievement of the golas and objectives of the existing CMP and the intent of Section 7 of the *HCNRA Act.* Those areas that are formally designated as RNAs would have a management report completed. (FSM 4063) **RNA-S8:** Promote research and cooperate with universities and other investigators for studies in RNAs (refer to **Scientific Research** section for a complete description of research studies). (Forest Plan, FSM) **RNA-G2:** Evaluate the expansion of the RNA system based on recommendations from establishment records, proposals generated from scientific research, and/or proposals from the Forest RNA Coordinator. Continue to add new areas to the system, based on the approved listing of Blue-Ochoco Province elements, for plant communities not currently in RNAs or proposed RNAs. Use the wetlands plant association classification completed by the Area Ecology Zone to add new areas based on riparian and wetland elements not currently in	(New) **RNA-S6:** Allow fire to assume its natural role, in terms of intensity, and periodicity, in proposed and established RNAs. Strive to minimize fire suppression impacts where firefighter safety or suppression objectives will not be compromised. Allow PF when it is determined that fire would not negatively impact the values for which the RNA was established. (Forest Plan, New) **RNA-S8:** Promote research and cooperate with universities and other investigators for studies in RNAs. Use nondestructive and nonconsumptive research techniques (refer to **Scientific Research** section later in this appendix). (Forest Plan, FSM) **RNA-G2:** Evaluate the expansion of the RNA system based on recommendations from establishment records, proposals generated from scientific research, or proposals from the Forest RNA Coordinator. Add new areas to the RNA system, based on the approved listing of Blue-Ochoco Province elements, for plant communities not currently in RNAs or proposed RNAs. Use the wetlands plant association classification completed by the Area Ecology Zone to add new areas based on riparian and wetland elements not currently in proposed or existing RNAs. (New)		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	proposed or existing RNAs. (New)			
	***Note to the reader**: Refer to the Forest Plan FEIS, Appendix H, for a complete description of each RNA.*			

Fire				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
Reference the Forest Plan (page 4-37), PACFISH (pages C-15 through C-16) , and INFISH (pages A-10 through A-11) for additional management direction.	***The following would replace existing CMP management direction (page 12) and supplement Forest Plan management direction (page 4-37), PACFISH management direction (pages C-15 through C-16), and INFISH management direction (pages A-10 through A-11).***			
	Goal: Within the Hells Canyon Wilderness, as nearly as possible, ensure that fire plays its natural role. In other parts of the HCNRA, manage natural and PF to emulate historic function of fire, where compatible with the Section 7 objectives of the *HCNRA Act*. Provide basic protection to human life and property. (New)		**Goal:** Within the Hells Canyon Wilderness, as nearly as possible, ensure that fire plays its natural role. In other parts of the HCNRA, manage natural and PF to emulate historic function of fire. Provide basic protection to human life and property. (New)	**Goal 1:** The HCNRA will be an ecosystem wherein fire assumes it ecological niche and fire suppression is unnecessary except to protect human life and private property. Pre-contact frequencies of fires will be restored to the extent possible. Recovery of degraded aspects of ecosystem health will be facilitated with careful use of prescribed fire: Fuel loads will be reduced, pest outbreaks may be reduced, germination sites for shade intolerant and fire tolerant species will be increased, nutrients will be released, native grassland species may be extended, and wildlife habitat will be created. Alternatives to the use of prescribed fire, such as scattering slash, regeneration of native grassland species, and biological control of nonnative species, will also be utilized in ways that support natural ecosystem processes.
Fire-O: Allow fire to resume a more natural role in shaping HCNRA flora and fauna while still protecting human life and property investment. (CMP) **Fire:** Develop a fire management plan which gives full consideration to the use of fire to help accomplish HCNRA vegetative objectives including fuel levels, forage, and wildlife habitat. Prescribe specific action to be taken for all fires, whether of natural or human-caused origin. The fire management plan will become a supplement to the existing CMP. (CMP) **Fire:** Until completion of the fire management plan, continue to suppress wildfire under existing National Forest policy, and continue the Tri-Region agreement (the Snake-Salmon	**Fire-S1:** The use of WFU for resource benefits within MAs 4,7,8,9,10,11, and 12 would be managed pursuant to: (New) ▪ *Wallowa-Whitman National Forest Wildland Fire Use for Resource Benefits Program* ▪ *Wallowa-Whitman National Forest Fire Management Plan* (USDA 2002) ▪ Management area objectives *Wilderness Act* (MA 4 only) **Fire-S2:** PF shall be conducted to mimic	**Fire-O1:** Manage WFU for resource benefits within MAs 4,8,9,11, and 12 pursuant to the *Wallowa-Whitman National Forest Fire Management Plan* (USDA 2002 as updated) and the appropriate sections pertaining to the HCNRA. (New) **Fire-O2:** Use PF to maintain, restore and sustain healthy forests and grasslands. (New) **Fire-S1:** Conduct PF to mimic historic fire patterns and intensities to the extent that safety, fuel accumulations, and social constraints permit. Consider historic fire frequencies, patch size, and seasonality in project design and	**Fire-S2:** PF shall be conducted to mimic historic fire effects to the extent that safety, fuel accumulations, and social constraints permit. The use of fire would help reduce the negative impacts of future wildfires and past fire exclusion. Historic patterns of fire frequency, patch size, and seasonality would be considered in project design and program management. The role of fire as a vital component of landscape function will be assessed for all significant land management actions within the HCNRA. (New)	**Fire-O1:** Reverse person-caused disruption of Native-American and natural fire regimes caused by wildland fire suppression, logging, and excessive livestock grazing, including the proliferation of nonnative species and overabundance of certain native species. **Fire-S1:** Include in each alternative for any proposed action analysis of whether the alternative would promote conditions that would restore or continue to disrupt natural fire regimes and native ecosystem functioning. (Livestock grazing, for instance, can prevent the re-establishment of native grassland fire regimes through the elimination of fine fuels necessary to carry fire.)

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Management Complex) for Hells Canyon. (CMP)	historic fire effects to the extent that safety, fuel accumulations, and social constraints permit. The use of fire would help reduce the negative impacts of future wildfires and past fire exclusion. Historic patterns of fire frequency, patch size, and seasonality would be considered in project design and program management. The role of fire as a vital component of landscape function will be assessed for all significant land management actions within the HCNRA. (New) **Fire-S3:** PF from planned ignitions may be used in MA 8, consistent with the management direction from adjacent management areas. (New) **Fire-S4:** Fire suppression shall continue as a necessary management action to protect life, property, and the resources found within and adjacent to the HCNRA. Suppression actions will be conducted so as to provide the least-cost-plus-loss that will meet land management objectives and provide the greatest degree of fire fighter safety. (New)	program management. Assess the role of fire as a vital component of landscape function for all extensive land management actions within the HCNRA. PF is an appropriate land management tool within all management areas of HCNRA; however, it is considered low priority for use in MA 16. (New) Also, use PF within MA 4 in areas where WFU cannot be safely implemented or is determined to not be compatible with Section 7 of the *HCNRA Act* or other applicable laws. (New) **Fire-S2:** Coordinate WFU and PF projects with permittees within active grazing allotments. (New) **Fire-G1:** Consider plant phenology and predicted plant responses prior to implementing PF projects. (New) **Fire-G2:** Consider historic patch size along with protection of sensitive features and habitat when establishing maximum manageable areas (MMA) for WFU. (New) **Fire-O3:** Manage responses to a wildland fire by resource management objectives and constraints that reflect a commitment to safety, cost effectiveness, implementation by qualified individuals, and maintaining the versatility to vary in intensity as current and predicted conditions warrant. (New) **Fire-S3:** Utilize minimum impact suppression tactics (MIST) for all areas within the HCNRA when a suppression response is required. Utilize MIST with contingency actions implemented as part of WFU. Determine suppression strategies based on management objectives; recognizing that weather, natural barriers, and fuel consumption with time can be elements of a strategy. Utilize the *Wallowa-Whitman National Forest Fire Management Plan* (USDA	**Fire-S3:** PF from planned ignitions may be used in developed recreation sites, consistent with the management direction from adjacent management areas. (New) **Fire-S4:** Fire suppression shall continue as a necessary management action to protect life, property, and the resources found within and adjacent to the HCNRA. Suppression actions will be conducted so as to provide the least-cost-plus-loss that will meet land management objectives and provide the greatest degree of fire fighter safety. (New) **Fire-S5:** PF will be used for range management, watershed improvement and improve scenic values. PF should not consume commercial wood products or herbaceous forage that could be removed in a commercially viable manner. (New)	**Fire-O2:** Minimize wildland fire suppression. **Fire-S2:** Suppress wildland fires that imminently threaten human life, native ecosystem function, or private property. **Fire-S3:** Suppress all wildland fires definitely known to be caused by persons (e.g., from a campfire). **Fire-O3:** Minimize the effects of wildland fire suppression. **Fire-S4:** Use only minimum impact suppression tactics (MIST) on wildfires occurring within the Hells Canyon Wilderness, and use MIST as the predominant tactic in all other areas of the HCNRA. **Fire-S5:** Use only native plant species for post-fire site rehabilitation. a) Utilize native grass species, trees, and shrubs. b) Where native seed sources are presently inadequate, research how to secure or build up such sources. **Fire-O4:** Use PF only to restore pre-contact settlement fire regimes and native ecosystem function, using the best available information and techniques. **Fire-G1:** Consult, under contract, with the Nez Perce Tribe regarding traditional use of fire for the purpose of modifying forest and grassland seral composition (for traditional land uses) and restoring ecosystem function. **Fire-S6:** A PF will be undertaken for a stated, specific purpose. If it is to be used to reduce fuel load, a comparison with other methods (e.g., promoting decomposition by getting wood down on the ground) will be made. **Fire-S7:** PF will be conducted in

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		2002 as updated) for aerial delivered firefighter protocols for Wilderness. In all situations firefighter safety would be the overarching consideration. (New) **Fire-S4:** Conduct fire suppression responses based on priorities for protecting private land, campgrounds, bridges, facilities, administrative sites and vegetation scenic qualities within the Imnaha River corridor, from Imnaha River Woods upstream to the Eagle Cap Wilderness boundary, North Pine Creek, and the headwaters of Big Sheep Creek (Mud and Lick Creek subwatersheds). (New) ***Note to the reader:*** ***Refer to Tables C-21 through C-25 for more detailed information on the Wildland Fire Management Policy.*** **Fire-G3:** Consider costs of wildland fire management actions relative to the values at risk, as well as the intrinsic values of preserving and protecting the ecological and historical elements that led to the HCNRA designation. Emphasize fire management actions that provide the least-cost plus loss to meet *HCNRA Act* resource goals. (New) **Fire-G4:** After fire, use an interdisciplinary team to determine when activities may resume in burned areas. Consider rest from domestic livestock grazing after burning. Coordinate with partners and permittees when setting up guidelines for management of burned areas. Use management strategies that will minimize the potential for introduction and/or spread of		areas currently outside the HRV for fire frequency (i.e., have missed more than one fire interval). PF will not be used in fire regimes that have long fire return intervals (more than 100 years) and therefore have not experienced significant ecological change due to fire suppression (unless the fire regime has been disrupted due to other non-Native-American settlement activities such as domestic livestock grazing which might warrant restoration acts which use fire). **Fire-S8:** PF will be used only for native ecosystem restoration and for creating vegetative composition and structure which mimics that created by traditional Native American fire use, with the following priorities: a) Native grasslands that are likely to disappear without fire or whose exotic/noxious vegetation will be reduced through fire and whose native vegetation will be enhanced through fire. b) To reduce fuel loading in low- or mid-elevation forest stands where low-intensity surface fires were/are the dominant natural fire regime, and the appropriate species exist on the site to support surface fires. PF and the appropriate management response to naturally occurring wildland fires will be planned at the landscape scale. A stand-level approach to fire management will not significantly reduce the hazard of catastrophic fire. **Fire-G2:** Avoid using PF to reduce excess slash material (refer to **Appendix J,** Fire note 1) Instead: a) Allow for small hand-piled slash, which can be a good habitat component. b) Lop-and-scatter slash. c) Transport heavy loadings of slash to places where more debris is needed to mitigate erosion or for stream enhancement. d) Place slash to hold moisture, for shade, and to discourage weed growth on areas being prepared for replanting.

Alternative A	Alternative B	Alternative E-modified		Alternative N
		noxious weeds and other undesirable nonnative plants. Protect areas of active restoration from management impacts. (New) **Fire-S5:** Protect historical and administrative structures identified as needing protection from damage by fire. Use resource advisors on all fire suppression actions. (New) **Fire-S6:** Construct firelines to avoid any known federally listed threatened and endangered or proposed plant species or potential habitat, unless coordinated with a Resource Advisor and suitable alternative locations and actions are not possible. (New) **Fire-S7:** Provide for firefighter safety over resource objectives. (New) **Fire-G5:** Consider appropriate management response for suppression actions, guided by firefighter safety, values at risk, cost of tactical implementation, probability of success and failure, and the potential result of either outcome. Base suppression responses in the HCNRA on relative risk, external influence, and management area objectives. Guide suppression responses by current and predicted weather, time of year, natural features, and the impact to critical firefighting resources. Use the most aggressive action needed to safely mitigate threats. Utilize analysis tools such as *Wildland Fire Situation Analysis* to evaluate alternatives and determine appropriate management responses to wildland fires. (New)		**Fire-S9:** PF will be used within the following constraints: a) In forests, only in areas where natural fuel breaks exist and where fires can reasonably be contained within a predetermined unit. b) In grasslands, taking into account plant phenology. PF operations would optimally occur during the period of plant dormancy which varies by species and microclimate conditions. Monitoring phenology will be coordinated between fire and ecology staff personnel. c) In forest, grassland, and riparian ecosystems, under timing to coincide, as much as possible, with the time of year in which (as a function of fuel and weather conditions) wildland fires naturally occur. d) Under timing to coincide, as much as possible, with unwanted insects' and diseases' lifecycle stages spent on the forest floor. e) Only when PF would not imminently threaten human life, fish or wildlife habitat (including significant ground-nesting bird habitat), scarce habitat, or private property. **Fire-S10:** Coordinate PF projects with: a) Guidelines related to airshed and air quality designations and objectives. b) Other activities to reduce forest fuel loading. c) Protection and recovery of riparian vegetation. d) Efforts to limit/control the spread of exotic/noxious weeds. **Fire-O5:** Acknowledge the presence of exotic/noxious weed species in PF planning or selecting the appropriate management response for wildland fires. **Fire-S11:** Prepare geographic information system (GIS) maps which show the distribution of exotic/noxious plant species in the HCNRA. **Fire-S12:** Prioritize fire reintroduction into Hells Canyon Ecosystems (both prescribed and wildland) to restore

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				ecosystem function and vegetative composition. **Fire-G3:** Ascertain the effects of fire upon exotic/noxious species present in the HCNRA. **Fire-S13:** In choosing an appropriate management response for a wildland fire, include the ecologically deleterious effect of exotic/noxious species spread as a prescription parameter in managing the incident. **Fire-O6:** Manage recreation use to reduce the risk of human-caused fires, including firepan requirements and seasonal campfire prohibitions. **Fire-S14:** Prohibit backpacker open fires during July, August, and September unless otherwise directed. **Fire-S15:** Prohibit all open fires when the Action/Precaution Class is 4 or above. **Fire-S16:** Prohibit motor vehicle, and internal-combustion devices when the Action/Precaution Class is 4 or above (except in the case of an emergency). **Fire-O7:** Monitor adequacy of fire planning in meeting the goals of the HCNRA CMP. **Fire-S17:** Funding for monitoring long-term results of a PF must be obtained prior to undertaking the PF. **Fire-G4:** Biennially review the HCNRA fire program's progress in restoring pre-non-Native-American settlement fire regimes and ecosystem function, taking into account natural range of variability, vegetative composition and structure, and annual weather/climate trends. Assure that representative sampling plots of forest, grassland, and riparian zones, are quantitatively monitored on an annual basis. These plots will

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				continue to be monitored regardless of the presence of domestic livestock or the occurrence of a wildland fire. This monitoring will be coordinated between: a) Fire and Ecology staffs, b) Utilizing university faculty, students, and private organizations to assist with monitoring when feasible. **Fire-G5:** Inventory fuel types and distribution within the HCNRA.
Air Quality				
There is no corresponding management direction in the current CMP. Reference the Forest Plan (pages 4-29 through 4-30) for existing management direction.	***The following would supplement existing Forest Plan management direction (pages 4-29 and 4-30).***			
	Goal: Preserve the atmospheric habitats in a manner compatible with the preservation of rare combinations of outstanding and diverse ecosystems and parts of ecosystems associated within the HCNRA. Manage the Hells Canyon Wilderness Class I airshed to meet the requirements of the *Clean Air Act.* (New)			**Goal 1:** The atmospheric habitat of the HCNRA will be maintained, to the greatest feasible extent, as clean air dominated by natural, nonmotorized sounds, to the benefit of both humans and atmospheric-dependent wildlife.
	Air-O1: Continue implementation of the monitoring protocol for air quality values (visibility, vegetation, soils, archaeological resources, water quality, wildlife, and odors) identified in the *Wallowa-Whitman National Forest Air Resource Monitoring Plan* (USDA 1997). (New) **Air-O2:** Manage fire-related emissions pursuant to the *Memorandum of Understanding (MOU) with the Oregon Department of Environmental Quality, Oregon Department of Forestry, Bureau of Land Management, and Forest Service*. Coordinate any burning projects within the HCNRA that may affect Idaho with the responsible state or federal airshed management entity. (New) **Air-G1:** Consider only MAs 7, 10, and 11 as locations where modified timber harvest utilization standards and silvicultural treatments can be used and made a high priority to reduce emissions from prescribed fire and wildfire per the MOU strategy. (New)	**Air-01:** Manage the Hells Canyon Wilderness Class I airshed to meet the requirements of the *Clean Air Act.* (New)	**Air-O1:** Reduce human-caused noise to the furthest extent possible (within the constraints of accommodating motorized access along particular routes), particularly motor-caused noise. **Air-S1:** Establish the monitoring parameters and a schedule for measurement of noise, toxics, and particulate pollution of the HCNRA. **Air-S2:** Establish decibel-level limits for motorized vehicles operating within the HCNRA based on needs of wildlife, human hearing, wilderness values, and effect of the canyon walls to amplify noise. Reduction of noise will receive priority consideration over speed, power, or numbers. **Air-O2:** Eliminate unnecessary,human caused air pollution within the HCNRA.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	***Note to the reader**: Alternatives address human-caused noise impacts under the "remoteness" setting for ROS indicators. Refer to the Recreation Settings, Experiences, and Opportunities section of this appendix for further information.*			**Air-G1:** When motorized noise or air pollution reach the HCNRA from sources outside the HCNRA, determine the sources and explore, with those causing the pollution or noise, potential alternatives for avoiding such noise and pollution. **Air-O3:** Establish a buffer around the Hells Canyon Wilderness such that motorized noises are minimized to avoid intrusion within the Wilderness. This includes such measures as eliminating unnecessary motorized use on the Wilderness boundary (see, e.g., access standards 16 and 18, which close black lake road at the HCNRA boundary, and lord flat road at the memaloose guard station; and wild and scenic river standard 1 which avoids recreational motorized use of the wild snake river); and establishing decibel and speed limits for motorized recreation (refer to Air Standard 2). **Air-S3:** For each alternative in proposals for human activities, indicate the estimated increase or decrease in human-caused noise in the project area, and potential effects on HCNRA wildlife (for example, salmon) and wilderness values.

Riparian/Aquatic Habitat and Water Quality				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
Reference the Forest Plan (pages 4-22 through 4-26), PACFISH (pages C-17 through C-19), and INFISH (page A-1 through A-14) including the terms and conditions for salmon, steelhead and bull trout for the WWNF for additional management direction.	***The following management direction would replace CMP management direction (page 13) for fisheries and (page 19) for water quality. It would supplement Forest Plan management direction (pages 4-22 through 4-26, including Regional Forester Amendment 2), PACFISH management direction (pages C-17 through C-19), and INFISH management direction (A-1 through A-14), and including terms and conditions from the BOs for salmon, steelhead and bull trout.***			
	Goal: Ensure the protection and maintenance of riparian and aquatic habitat and maintain viable populations of native and desired nonnative riparian and aquatic vertebrate and invertebrate species. (New)			**Goal 1:** The distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which native species, populations and communities are uniquely adapted. 2. Spatial and temporal connectivity between watersheds. 3. The physical integrity of the aquatic system, including shorelines, banks, and bottom configurations. 4. Water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. 5. The sediment regime under which aquatic ecosystems evolved. 6. Instream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient and wood routing. 7. The natural timing and variability of water table elevations in meadows and wetlands. 8. Species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability. 9. Habitat to support well-distributed populations of native plants, invertebrates, and vertebrate riparian-associated species.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				Refer to **Appendix J,** Alternative N for proposed definitions for riparian habitat, aquatic diversity areas, critical refuges, and opinions regarding PACFISH direction.
Rip/Aqu-O: Maintain and protect fish habitat through careful resource management and recreation development. (CMP) **Rip/Aqu-O:** Provide opportunities for visitors to enjoy HCNRA fisheries while maintaining high quality fish habitat. (CMP) **Rip/Aqu:** Coordinate timber, mining, range management activities, and recreation development to protect and maintain fish habitat. (CMP) **Rip/Aqu:** Cooperate with the USFWS, NOAA- Fisheries, and the States of Oregon and Idaho in maintaining or increasing anadromous fish populations. Coordinate river management activities to accommodate the construction and operation of the proposed fish traps at the base of Hells Canyon Dam. (CMP) **Rip/Aqu:** In cooperation with the ODFW, study the feasibility and the desirability of extending the range of red banded trout through transplanting stock from Cook Creek of Cherry Creek. (CMP) **Rip/Aqu:** Provide angler access when and where appropriate to permit opportunities to harvest firmly established fisheries. (CMP) **Rip/Aqu:** Defer construction of recreation facilities such as boat ramps, roads, and trails or camping, for the express purpose of harvesting biological surpluses of fish until the fishing in question is firmly established. (CMP)	**Rip/Aqu-S1:** Riparian Habitat Conservation Areas (RHCAs) would be maintained and protected for 300 feet on each side of perennial fish-bearing streams and 150 feet of perennial streams, ponds, lakes, springs and other natural water bodies unless adjusted on a site specific basis as described in PACFISH. (PACFISH/INFISH) **Rip/Aqu-S2:** No management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposition/ erosion of sediment shall be permitted within RHCAs which seriously and adversely affect water quality and riparian aquatic habitat. (PACFISH/INFISH) **Rip/Aqu-S3:** All management actions would be designed to ensure riparian/aquatic habitat is moved toward or maintained in proper functioning condition (PFC) as defined by the following characteristics. (PACFISH/ INFISH) ▪ Dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; ▪ Filter sediment, capture bedload, and aid floodplain development; ▪ Improve flood-water retention and groundwater discharge; ▪ Develop root masses that stabilize streambanks against cutting action; ▪ Develop diverse ponding and channel characteristics to	**Rip/Aqu-S1:** Protect, maintain and restore Riparian Habitat Conservation Areas (RHCAs) to meet riparian management objectives (RMOs) as defined in PACFISH and INFISH. (PACFISH/INFISH) **Rip/Aqu-S2:** Modify or prohibit management practices causing detrimental changes in riparian areas, wetlands, flood plains, stream channels, or water quality within RHCAs to correct the problem. (PACFISH/INFISH) **Rip/Aqu-S3:** Design all management actions to not retard attainment of RMOs within RHCAs and to ensure riparian habitat is maintained in (or moved toward) proper functioning condition (PFC). (PACFISH/INFISH) ***Note to the reader:*** ***Refer to glossary for definitions related to riparian direction.***	**Rip/Aqu-O1:** Manage lands within Wallowa County to achieve the watershed management objectives of the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy* (Wallowa County 1999). (New) **Rip/Aqu-S1:** Follow the watershed approaches in the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy* (Wallowa County 1999). (New)	**Rip/Aqu-O1:** Develop protection plans for HCNRA Aquatic Diversity Areas (ADAs) with measurable desirable future conditions (DFCs); activities and restraint from activities that will contribute significantly to maintenance or attainment of the DFCs; key monitoring elements that will track maintenance or movement toward the DFCs; and timelines for actions, monitoring, and attainment of specific DFCs. **Rip/Aqu-S1:** Feedlots will be prohibited within ADAs. **Rip/Aqu-O2:** Address conditions in uplands in terms of aquatic conservation. The following improvements in upland hydrologic processes will aid aquatic conservation: a. Reduced overland flow; b. reduced surface erosion; c. improved infiltration; and d. increased seeps/springs. Indicators of upland recovery that will aid aquatic conservation include: a. Return of native vegetation communities, decreases in exotic plant species, and increases in number of native species; b. diversified age class distribution of plants; c. reduced soil compaction; d. increased plant vigor; e. increased availability of seed sources; f. recovery of biological crusts; and g. return of natural fire regimes (noting that livestock grazing reduces fine fuels essential for ignition of grassland fires). **Rip/Aqu-O3:** Prepare HCNRA riparian map and conditions report, identifying (1) current stream type condition and (2) current riparian vegetation type and condition. Prepare a publicly accessible

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td rowspan="6"></td><td>provide the habitat and water depths, duration, and temperature necessary for aquatic vertebrate and invertebrate production, waterfowl breeding, and other issues;
▪ Support greater biodiversity of native organisms.</td><td></td><td rowspan="6"></td><td rowspan="6">map and overview of all HCNRA aquatic systems (rivers, streams, wetlands, springs, wet meadows; and hydrological connections, where known) and conditions within the HCNRA, identifying which riparian sites are healthiest, which are moderately disturbed, and which are currently most diverted from healthy, native conditions. Include all stockwater developments on the map (refer to Appendix J, Riparian/Aquatic note 2).

Rip/Aqu-S2: Establish appropriate permanent transects for stream condition and riparian vegetation to enable reproducible, long-term data-gathering.

Rip/Aqu-G1: Identify current stream type using the Rosgen stream classification, using measurements and permanent transects (refer to Appendix J, Riparian/Aquatic note 3). Considered will be bankfull channel width, width to depth ratio, channel sinuosity, entrenchment, pool dimensions and frequency, and amount of raw stream bank. Bankfull width is defined as the wetted channel width under conditions of bankfull discharge.

Rip/Aqu-S3: In describing particular HCNRA riparian sites as being in "healthiest" condition, utilize standards recognized widely by the scientific community (e.g., aquatic biologists, conservation biologists, hydrologists, and geomorphologists). These standards will be specific and subject to independent verifiability. The January 1992, Upper Grande Ronde River Anadromous Fish Habitat Protection, Restoration and Monitoring Plan and Beaverhead National Forest riparian guidelines provide examples of such standards. Riparian health will be determined based on ecological distance from potential.

Rip/Aqu-G2: Examine and discuss the relationship of HCNRA stockwater developments to alteration of natural hydrologic cycles and functioning in the HCNRA, e.g., as a result of soil</td></tr>
<tr><td colspan="2">Rip/Aqu-O1: Focus restoration efforts of riparian/aquatic habitat on human-caused disturbances. (New)</td></tr>
<tr><td>Rip/Aqu-S4: Riparian/aquatic habitat that is found to be functioning-at-risk or is non-functional (BLM TR 15, 1998) would be restored by using passive management as a first choice and active restoration will be second choice. (New)

Passive management is defined as allowing nature to restore (heal) the natural balance between erosion/ deposition, hydrologic, and vegetation processes by removing identified adversely affecting agents. (New)</td><td>Rip/Aqu-S4: Restore riparian habitat that is found to be functioning-at-risk or nonfunctional (BLM TR 1737-15, 1998 or as updated) using passive management or active restoration. Emphasize passive management over active restoration where possible. (New)</td></tr>
<tr><td colspan="2">Rip/Aqu-S5: Active restoration actions would be undertaken in areas where PFC analysis, aquatic inventory, or monitoring clearly demonstrates a significantly greater benefit to the riparian/aquatic habitat than by using passive methods. (New)

Rip/Aqu-S6: Active restoration actions may take place on wild and scenic river areas where PFC analysis clearly demonstrates it would be consistent with the WSR Act. (New)</td></tr>
<tr><td>Rip/Aqu-S7: Human-caused disturbances may be restored through management practices and improvements if PFC analysis can demonstrate a significantly greater benefit than would occur through natural processes. (New)</td><td></td></tr>
<tr><td></td><td colspan="2">Rip/Aqu-O2: Manage lands in Wallowa County to achieve the watershed management objectives of the Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy (Wallowa County 1999). (New)</td></tr>
<tr><td></td><td></td><td>Rip/Aqu-G1: Incorporate the Coarse Screening Process (Rhodes et al 1994) as an element of inventory and monitoring to supplement the PFC process to provide more comprehensive</td></tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		biologial habitat inforamtion as needed. (New) **Rip/Aqu-G2:** Cooperatively identify and establish inventory and monitoring sites for riparian/aquatic habitat sites for conditon and trend. Utilize standard protocols to establish riparian vegetation/aquatic habitat type and condition. Additional parameters for physical and water quality analysis will be added as necessary. (Forest Plan) **Rip/Aqu-G3:** Cooperate with state fish and wildlife agences and Nez Perce Tribe to conduct species presence/absence and spawning surveys. (Forest Plan) **Wqq-O1:** Maintain or improve water quality, while recognizing the limitations posed by marginally stable tributary stream channels in a canyon environment that efficiently collect and transport surface water from frequent intense runoff events in high-gradient, dendritic, drainage networks. (Forest Plan) **Wqq-O2:** Maintain favorable conditions of stream flows for water quality, while recognizing limitations posed by the exercise of valid water rights, a hydropower license, and natural conditions that affect streamflow. (Forest Plan) **Wqq-S1:** Meet or exceed state water quality standards for waters of the States of Idaho and Oregon within the HCNRA, including total maximum daily loads (TMDLs). (New) **Wqq-S2:** Implement water quality improvement standards and guidelines for water quality impaired waters of the States of Idaho and Oregon within HCNRA, as required in state Water Quality Management Plans (WQMPs). (New)		compaction around these developments (refer to **Appendix J,** Riparian/Aquatic note 4). **Rip/Aqu-S4:** Biennially update the map and conditions of HCNRA riparian habitat areas to display areas which have been brought into compliance with established goals. **Rip/Aqu-O4:** Identify and disseminate throughout the bioregion a list of key riparian studies and research which would significantly contribute to wildlife riparian habitat goals and which could variously be undertaken as college- and graduate-level class projects, theses, and dissertations; and/or by other scientists and scientifically-skilled citizens. **Rip/Aqu-O5:** Prepare HCNRA riparian-associated wildlife status and threats report. Utilizing existing data, prepare a publicly accessible description of native HCNRA riparian-associated species that have historically been present in the HCNRA; their particular habitat needs; activities or specific conditions that threaten their functioning, reproduction, recovery, or health; and their current population status. Identify major gaps in the database, and establish priorities for filling of those gaps based on greatest need and feasibility. This report will be updated continuously as new information is accrued; a publicly accessible version will be updated every two years. **Rip/Aqu-O6:** Identify key riparian habitat areas and sections of stream channels in need of restoration, and develop restoration plans for each. **Rip/Aqu-S5:** Begin recovery of riparian areas at healthy "core" areas, working downstream and outward to reconnect habitats and to promote recolonization of nearby streams and watersheds. **Rip/Aqu-G3:** Prioritize recovery plans on the basis of:

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		Wqq-S3: Develop Water Quality Restoration Plans (WQRPs) for water quality impaired waters within HCNRA, as described in *Protocol for addressing Clean Water Act section 303(d) listed waters. Version 2.0, as updated (*USDA and USDI 1999). (New) **Wqq-G1:** Cooperate with the States of Idaho and Oregon to develop TMDLs for streams in HCNRA on State 303(d) Lists. (New) **Wqq-G2:** Cooperate with the States of Idaho and Oregon to develop WQMPs for subbasins in HCNRA, including Brownlee Reservoir, Hells Canyon, Imnaha, Lower Snake-Asotin, Lower Grande Ronde, Little Salmon, and Lower Salmon subbasins. (New) **Wqq-G3:** When developing TMDLs, WQMPs and WQRPs, evaluate the relationship between water quantity and water quality, and develop appropriate solutions, where needed. (New)		a. The ecological importance of the habitat; b. the presence and condition of at-risk salmonid and other fish stocks or riparian-associated species; c. the restoration potential of the habitat; d. the resources necessary to execute the restoration plan; and e. the likelihood of rapid initiation of a downward trend as a result of bank failure or stream channel straightening. **Rip/Aqu-S6:** Develop recovery plans based on measurable desirable future conditions (DFCs), activities to attain those conditions, and monitoring that will track whether those activities are resulting in movement toward the DFCs. Activities must not be goals in and of themselves, and all desirable future conditions, activities, and monitoring must be capable of independent verification by interested scientists and scientifically literate citizens and organizations. **Rip/Aqu-G4:** Recovery will involve stabilization of point bars, lateral bars, and mid-channel bars with vegetation. This is required for stream channels to begin narrowing and for the sediment load to decrease. **Rip/Aqu-S7:** Instream structures other than addition of woody debris will not be used as a means of restoring stream function (refer to **Appendix J,** Riparian/Aquatic note 5). If large woody debris is added, it should provide natural amounts, types, sizes, and spatial distributions of wood both in and along stream channels. The addition of woody debris should be considered only in conjunction with recovery of off-channel habitat and cessation of off-channel activities that have led to a deficiency of in-channel woody debris. **Rip/Aqu-G5:** Replanting may be necessary on some scale, but natural recovery will be allowed to take place wherever possible, primarily through rest

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				from livestock grazing or destabilizing recreational activities. **Rip/Aqu-G6:** As riparian vegetation recovery may be delayed by browsing wild ungulates, plan projects to compensate for wild ungulates. **Rip/Aqu-G7:** Because some streams have become destabilized, acknowledge that stream channels may continue to widen for a period of time until the stream banks revegetate with deeply-rooted and dense vegetation (refer to **Appendix J,** Riparian/Aquatic note 6). **Rip/Aqu-G8:** Acknowledge that streams with high banks may continue to be unstable as long as the rooting depths of the riparian vegetation are less than the bank height. **Rip/Aqu-G9:** Acknowledge that stream banks with different types of bank compositions (clay, silt, sand, gravel, or cobbles) and with different bank stratigraphies (e.g., composite versus homogeneous) will respond differently to rest and will have different time scales required for vegetation establishment and bank stabilization). **Rip/Aqu-S8:** Identify key riparian research and monitoring desirable for HCNRA. **Rip/Aqu-S9:** Identify the feasibility of reintroduction of aquatic and riparian species which have been extirpated from the HCNRA. Establish priorities for reintroduction of native species. **Rip/Aqu-S10:** Any human interventions intended to aid recovery of riparian habitat will be done as experiments and monitoring will include non-FS reviewers. Recovery of large systems is necessary in order to have an intact system with which to experiment. The rationale for human interventions must be explicitly identified. Human interventions must be viewed only as a "temporary bridge" to a condition in which natural recovery can

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				take place **Rip/Aqu-S11:** If grazing is permitted within a recovery plan, monitoring will include a permanent livestock exclosure (or exclosures) of adequate size to serve as study areas within each allotment. Such areas will provide reference sites where key quantifiable ecological indicators can be measured. **Rip/Aqu-G10:** The following riparian indicators will be used, as relevant, to measure recovery of riparian wildlife habitat: a. Riparian vegetation: Improved densities, composition, and structure of native vegetation. Point, mid, and lateral bars will be stabilized with dense vegetation. b. Riparian-associated vertebrate and invertebrate animal species: Increase in number of native species and the health (e.g., desirable structure, size) of their populations. c. Channel substrate: Sorting of bed material substrates, including decreased fine sediment among coarser material. d. Channel morphology: Channel narrowing and resulting turbulence; point bars; increased sinuosity and channel complexity; increased numbers of riffles; increased pool volume. e. Water quality: Stream temperature moderation; return of cold-water fauna; absence of anthropogenic-associated pollutants. f. Water quantity and timing: Increased soil water holding capacity and flow moderation; reappearances of streams; decreased soil temperatures; moderated high flows and enhanced or prolonged base flows; evidence of functional interaction between surface flows and increased groundwater storage. g. Hydrological functioning: Connection of streams with their floodplains, adequate groundwater storage, functioning hyporheic (i.e., stream-adjacent groundwater) zones.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				h. Infiltration: Improved infiltration of precipitation and flood waters into the valley sediments. **Rip/Aqu-O7:** Maintain degraded riparian areas as livestock-free until restoration has been accomplished. Proceed on the presumption (as evidenced in numerous scientific studies) that livestock grazing will degrade riparian conditions. **Rip/Aqu-G11:** When preparing all riparian habitat recovery plans, incorporate the rapidly-accruing scientific information regarding both impacts of livestock grazing on riparian areas and evidence of recovery of riparian habitat and riparian-associated wildlife when livestock grazing is excluded. **Rip/Aqu-S12:** Prohibit feedlots in riparian areas. **Rip/Aqu-O8:** Where livestock are permitted to continue grazing, utilize an HCNRA adaptation of the *Beaverhead National Forest Riparian Guidelines,* which determine acceptable use levels for the following parameters: Browse levels on riparian shrubs, stubble height, streambank alteration, and forage utilization. The use levels are arrived at by setting desired future condition (DFC), and assessing the potential sensitivity, and inherent stability of the riparian area (both stream and vegetative components). **Rip/Aqu-O9:** Incorporate in all alternatives within proposals for optional human activities within the HCNRA a discussion of the potentials of each alternative to maintain, restore, or degrade HCNRA native and healthy riparian habitat conditions, explicitly considering cumulative impacts of other past, present and foreseeable human activities within the area of concern. **Rip/Aqu-G12:** Consider, during appropriate planning processes (e.g., Forest Plan and AMP processes), the use of water rights for instream water rights,

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				where it will help restore aquatic functioning.

Wildlife Habitat				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
Reference Forest Plan (pages 4-44 through 4-46), PACFISH (pages C-9 through C-23), and INFISH (pages A-1 through A-15) for additional management direction.	***The following would replace existing CMP management direction and supplement Forest Plan management direction (pages 4-44 through 4-46), Regional Forester Amendment #2, PACFISH management direction, and INFISH management direction.***			
	Goal: Ensure the protection and maintenance of wildlife habitat. (New)			**Goal:** Indigenous wild species will be present in the HCNRA at functionally significant or large population sizes rather than minimum viable population sizes. Native wildlife that have been extirpated from the HCNRA will be restored, whenever possible. Nonnative wildlife currently in the HCNRA will be present in the HCNRA only at levels that do not interfere with native wildlife protection and restoration. Nonnative wildlife will not be introduced into the HCNRA. The distribution and diversity of genetically vigorous populations of indigenous wild species will be protected as integral with ecosystem integrity and rehabilitation, recognizing the importance of Hells Canyon's unique capabilities within the Columbia River Basin and the western Northern Rockies. Three management areas within the HCNRA focus on the habitat for most HCNRA wildlife species: Forest, Grassland, and Riparian.
Wld-O: Maintain or enhance wildlife habitat for nongame and game species by emphasizing diversity of habitat. (CMP) **Wld-O:** Enhance opportunities for threatened and endangered species to survive and increase in numbers. (CMP) **Wld-O:** Provide for public enjoyment and for protection of wildlife. (CMP)	**Wld-O1:** Provide habitat for all existing native and desired nonnative vertebrate wildlife species and invertebrate organisms. (Forest Plan) **Wld-S1:** Administer HCNRA for public outdoor recreation in a manner compatible with the protection and maintenance of wildlife habitat and populations. (New)	**Wld-O1:** Emphasize the management of habitat for native species needs and also desired nonnative species and invertebrate organisms. (Forest Plan) **Wld-S1:** Administer HCNRA for public outdoor recreation in a manner compatible with the protection and maintenance of wildlife habitat and populations. (New)	**Wld-O1:** Manage lands within Wallowa County to achieve the watershed management objectives of the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy* (Wallowa County 1999). (New) **Wld-S1:** Follow the watershed approaches in the *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan with Multi-Species Habitat Strategy* (Wallowa County 1999) for wildlife management. (New)	**Wld-O1:** Gather data on current native wildlife use and populations, correlating with the vegetation and soils mapping (refer to Vegetation and Soils). **Wld-G1:** Use existing data wherever possible, and determine which data are most in need of field confirmation. Determine major gaps in data, and present cost-effective, but sufficient, methods of filling these major gaps. **Wld-G2:** Gather and compile data with communication in mind. With existing databases, commonly used software, non-Agency scientists, students, scientific and citizen organizations, and the public.

<table>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td rowspan="5">Wld: Coordinate timber and range management activities to provide cover and forage habitat for big game in the amount and condition needed to maintain populations agreed upon between the Forest Supervisor, ODFW, and the IDFG. (CMP)

Wld: Recreation and other resource management will, whenever practical, be done in a manner to improve wildlife habitat. (CMP)

Wld: Take special protective measures around den and nest sites and take special steps, as appropriate, to safeguard those species on the Regional Forester’s endangered, threatened, and sensitive species list. (CMP)

Wld: Protect significant caves from activities that would adversely affect their recreational, biological, geological, hydrological, mineralogical, paleontological, or cultural values. Protection will be based on the classification and natural and cultural values. (Forest Plan)

Wld: Recognize cheatgrass as an important component of chukar habitat; do not pursue specific cheatgrass eradication programs. (CMP)

Wld: Conduct a survey to identify biologically unique habitats and communities and provide appropriate protective measures. (CMP)

Wld: Discourage human activities that eliminate or seriously impact riparian habitat. (CMP)

Wld: Create a wide diversity of habitats in or near developed recreation sites to attract an assortment of birds and mammals. In such areas, favor the presence of nongame animals. (CMP)

Wld: Provide interpretive services to help visitors understand HCNRA wildlife and</td><td>Wld-S2: Protect, enhance, and manage wildlife habitat for the recovery of wildlife that are listed as threatened, endangered, or sensitive. Inventory the occurrence and distribution of threatened and endangered species. (Forest Plan)</td><td>Wld-S2: Protect, enhance, and manage wildlife habitat for the recovery of wildlife that are federally listed as threatened, endangered, or sensitive. Inventory the occurrence and distribution of threatened and endangered species. (Forest Plan)

Implement the conservation measures in the Canada Lynx Conservation Assessment and Strategy (Reudiger et al 2000 as updated). (New)</td><td rowspan="2"></td><td rowspan="5">Wld-O2: Identify and characterize areas and species in need of recovery (rehabilitation), explicitly including consideration of connecting habitat within the bioregion, environmental threats (human and natural), habitat quality, unequal abundances in similar habitat types. (Coarse filter habitat relationship models fail to consider these elements which are crucial for uncommon species).

Wld-O3: Reverse the decline of native wildlife species in the HCNRA via the development of a "Declining Native Wildlife" management plan.

Wld-S1: The "Declining Native Wildlife" management plan should include the following direction: 1) Estimate the relative significance of decline of all native wildlife species in the HCNRA. 2) Establish protection and enhancement priorities for declining native wildlife species. 3) Establish interpretive opportunities and priorities. 4) Develop research design and establish research priorities for declining native wildlife species. 5) Develop a protection and enhancement plan for declining native wildlife species. 6) Establish monitoring priorities and develop a monitoring plan and monitoring schedule. 7) Develop/ establish inventory priorities for uninventoried portions of the HCNRA.

Wld-04: Determine the feasibility of reintroducing, and providing connecting habitat for extirpated wildlife species such as the wolf, grizzley bear, wolverine, lynx, and Columbia sharptail grouse.

Wld-O5: Prepare a public report on reintroduction potentials, including foreseeable human activities or developments that would foreclose options for such reintroductions.

Wld-O6: Develop survey and management protocols for uncommon species (i.e., rare, threatened, sensitive, or declining) that have average home</td></tr>
<tr><td colspan="2">Wld-S3: Locate, monitor, and protect nesting, roosting, and feeding areas for bald eagles. Develop nest site plans for new nests within two years of discovery. (New)</td></tr>
<tr><td colspan="3">Wld-S4: Protect Townsend's big-eared bats from negative human-caused disturbance by managing access at the entrances of caves and mines. (Forest Plan)

Wld-G1: Build and manage gates for Townsend's big-eared bats at the entrance of each cave and mine tunnel that is negatively affected by human-caused disturbance. Gates will be set back to comply with visual concerns. (New)

Wld-G2: Cave and mine shafts used for hibernation should be identified and protected from human-caused disturbance from November 1 to April 1, each year. (New)

Wld-G3: Maternity colonies for Townsend's big-eared bats should be identified and protected from human-caused disturbance from May 1 to August 15. (New)

Wld-G4: Known habitat areas for Townsend's big-eared bats should contain buffers of uninterrupted canopy (brush or trees) of 100 feet, where possible. (New)</td></tr>
<tr><td>Wld-G5: Outside Wilderness, maintain a diversity of wildlife habitats by providing a variety of successional stages for each biophysical environment within the HRV. (New)

Wld-G6: Identify and monitor potential wolverine natal den sites in or near motorized over-snow vehicle play areas. If active natal den sites are found, restrict human use near these sites from January through May. (New)</td><td>Wld-G5: Outside Wilderness, maintain a diversity of wildlife habitats by providing a variety of structural stages for each plant association arranged in a mosaic across the landscape. (New)

Wld-G6: Identify and monitor potential wolverine natal den sites. If active natal den sites are found, restrict human use near these sites from January through May. (New)

Wld-G7: Maintain large refugia (greater than 10,000 acres) with low human-caused disturbance for wolverine, fisher, pine marten,</td><td>Wld-G5: Outside Wilderness, maintain a diversity of wildlife habitats by providing a variety of successional stages for each biophysical environment within the HRV. (New)

<u>Note to the reader</u>: Refer to the Forested Vegetation section of this appendix for further direction.</td></tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
habitat values and management activities designed to enhance habitats. (CMP) **Wld:** Discourage visitor use in areas, or during time periods, that would be detrimental to wildlife. (CMP) **Wld:** Permit the gathering of fuelwood in Forage and Dispersed Recreation/Timber Management (MAs 10 and 11) only if it can be done without reducing the quality of wildlife habitat. Gathering fuelwood for recreation camp fires is permitted. (CMP) **Wld for MAs 7, 10, 11:** On big-game summer range, maintain hiding cover as defined in *Wildlife Habitats In Managed Forests of the Blue Mountains* (Thomas et al 1979) at no less than 60 percent of the forested stands that have the potential to qualify as big-game hiding cover. (CMP, Forest Plan) **Wld:** Allow natural and human-caused fire, through the *Wallowa Whitman National Forest Fire Management Plan* (USDA 2001), to play a more important role in maintaining and improving wildlife habitat. (CMP, Forest Plan) **Wld:** Give special consideration to leaving snags adjacent to water or natural openings during timber sale design. (CMP)	**Wld-G7:** Maintain large refugia (greater than 10,000 acres) with low human-caused disturbance for wolverine. (New) **Wld-O2:** Outside Wilderness, maintain areas of late and old-growth structure similar to the HRV levels for the purpose of providing habitat for dependent species. (New) **Wld-S5:** Identify and map old-growth structure in MAs 7, 10, and 11 and track its extent and distribution through time. Designate and maintain connectivity corridors between old-growth stands. (New) **Wld-S6:** In MAs 7, 10 and 11 identify late and old-growth replacement stands and develop a management strategy (during project level planning) to maintain or move stands toward late and old-growth conditions as needed to maintain this component within the HRV. (New) **Wld-G8:** Designate blocks of old-growth at least 900 acres each, in clusters of three home range units for pileated woodpecker pairs (Bull and Holthausen 1993). Within those home ranges, it is recommended: a) about 75 percent be in the grand fir forest type, b) at least 25 percent be old-growth and the remainder be mature, c) at least 50 percent of the area should have greater than 60 percent canopy closure, d) at least 40 percent of the area should remain unlogged, and e) blocks should be no farther than 1.2 miles apart. (New)	lynx, wolf, and other forest carnivores benefitting from large undisturbed areas. (New) **Wld-O2:** Outside Wilderness, maintain areas of late/old structure similar to the HRV levels for the purpose of providing habitat for dependent species. (New) **Wld-S5:** Identify and map late/old structure in MAs 7, 10, and 11 and track its extent and distribution through time. Identify and maintain connectivity corridors between late/old structure. Refer to **Table C-10:** Interim Definitions for Old Growth (Region 6). (New) **Wld-S6:** In MAs 7, 10, and 11, identify late/old structure replacement stands and develop a management strategy (during project-level planning) to maintain or move stands toward late/old structure conditions as needed to maintain this component within the HRV. (New) **Wld-G9:** Identify blocks of late/old structure at least 900 acres each to provide habitat for associated species (Bull and Holthausen 1993). (New)		range sizes smaller than five acres (e.g. amphibians), similar to those adopted for federal lands within the range of the Northern spotted owl. Particular attention will be directed at developing survey and management protocols for amphibians, mollusks, arthropods, and nonflying mammals.
	Wld-O3: Manage vehicular access seasonally or year-long, as necessary to protect or maintain important wildlife habitat. Determine specific restrictions during project-level planning of a district access travel plan. (Forest Plan, CMP)			

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Wld-S7: Maintain open-road densities for all subwatersheds at or below 1.0 mi./sq. mi., except subwatersheds 2D, 2G, 7Q, 8B, 9K, 9L, 9M, 41G, which would be maintained at or below 1.5 mi./sq. mi. open road densities. (New)	**Wld-S7:** Maintain open-road densities for all 61 subwatersheds at or below 1.35 mi./sq. mi., except subwatershed 9L, which would be maintained at or below1.9 mi./sq. mi. open road densities. (New)	***Note to the reader: Chapter 3, Riparian/Aquatic Habitat and Water Quality section for a map of subwatersheds.***	
	Wld-O4: Outside Wilderness, provide quality big-game habitat to meet the elk and deer herd populations, calf, fawn, buck and bull ratios established by ODFW, and IDFG; and to promote a large mature male segment into the populations, wherever practicable. (Forest Plan) **Wld-G9:** Elk management objectives for the Snake River unit would be re-evaluated with the ODFW upon completion of ecological plot monitoring. Maintain elk management objectives at their 1994 management objective levels, unless adjusted by the Oregon Fish and Wildlife Commission. (New) **Wld-O5:** Manage big-game and livestock numbers within appropriate carrying capacities for both species. (Forest Plan)	**Wld-O4:** Provide quality big-game habitat to meet the elk and deer herd populations, calf, fawn, buck, and bull ratios established by ODFW and IDFG. (Forest Plan) **Wld-G9:** Maintain elk and deer habitat to meet the current management objective levels, unless adjusted by the Oregon Fish and Wildlife Commission. Work cooperatively with ODFW on future management objective revisions. The current management objectives are (ODFW 1994)*:* (New) <u>Snake River</u>: 4,200 elk, 15 bulls, 40 calves, 6,400 deer, 15 bucks, 70 fawns <u>Pine Creek</u>: 400 elk, 15 bulls, 45 calves, 2,500 deer, 15 bucks, 70 fawns <u>Chesnimnus</u>: 3,500 elk, 10 bulls, 40 calves, 3,600 deer, 15 bucks, 70 fawns <u>Imnaha</u>: 800 elk, 15 bulls, 40 calves, 5,300 deer, 15 bucks, 70 fawns (bull, calves, bucks, fawns are per 100 cows/does).	**Wld-O4:** Outside Wilderness, provide quality big-game habitat to meet the elk and deer herd populations, calf, fawn, buck and bull ratios established by ODFW, and IDFG; and to promote a large mature male segment into the populations, wherever practicable. (Forest Plan) **Wld-O5:** Manage big-game and livestock numbers within appropriate carrying capacities for both species. (Forest Plan)	
	Wld-S8: Prevent the spread of diseases from domestic to wild sheep by maintaining separation of the two species. Vacant and	**Wld-S8:** Prevent the spread of diseases from domestic sheep to wild sheep by maintaining seperation of the two species		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	active allotments would not be stocked with domestic sheep unless a vaccine or other technique is found that eliminates the incompatibility. (New) **Wld-G10:** Provide suitable and effective habitat to assist in the maintenance of big-game populations to levels which are healthy stable, and consistent with the Section 7 objectives of the *HCNRA Act*. (New) **Wld-G11:** Evaluate the carrying capacity for wildlife and livestock for use in forage allocation during AMP development. (Forest Plan)	Vacant allotments would not be stocked with domestic sheep unless a vaccine or other technique is found that eliminates the incompatibility. (New) **Wld-G10:** Outside Wilderness, actively manage habitat for big-game herds to assist the States of Oregon and Idaho and the Nez Perce Tribe in reaching population objectives, bull and buck escapement, and calf and fawn ratios. Continue to recover bighorn sheep through participation with the *Restoration of Bighorn Sheep to Hells Canyon, the Hells Canyon Initiative* (Hells Canyon Bighorn Sheep Restoration Committee 1997). (New) **Wld-G8:** Ensure the long-term maintenance of healthy populations of native landbirds by implementing the biological objectives in the *Landbird Conservation Strategy (*Partners in Flight 2000 as updated). (New)		
Wld: Consider the control of predators only when they threaten private property, public health or safety, threatened and endangered species, or cause or threaten to cause unacceptable damage to other resources. Encourage domestic livestock management techniques that would reduce the necessity of predator control. Where predator control is necessary, give priority to licensed hunting or trapping, habitat manipulation, or natural biological suppression methods. (CMP) **Wld:** Maintain habitat to support populations of bighorn sheep and Rocky Mounting goats in cooperation with the ODFW and the IIDFG. Specific locations of introductions and proposed range of the species will be determined through supplemental	**Wld-G12:** Evaluate, and where appropriate, re-establish, and/or enhance populations of indigenous wildlife species. The appropriate mechanism is to reach joint agreement, through an MOU with the appropriate fish and wildlife state agencies. (New) **Wld-G13:** Manage recreational livestock use to minimize the potential for transmission of harmful domestic animal diseases to wildlife. (New)		**Wld-G14:** Manage recreational livestock to minimize the potential for transmission of harmful domestic animal diseases to wildlife. (New)	**Wld-O7:** Develop species conservation plans for long-distance migratory species (e.g., neotropical migratory birds) and uncommon mobile species (i.e., average home range five acres or larger). The species conservation plans will include a discussion of major threats to viability, mitigation measures that address these threats, and requirements for habitat protection (including minimum size, distribution, and connectivity of required habitat patches) needed to ensure that viable, well-distributed populations exist for species with identified concerns. When data are lacking to prepare quantitative viability analyses, species viability will be qualitatively assessed. Qualitative species viability assessments will estimate current status as one of at least four potential conditions: 1) Well-

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
environmental analysis and memorandums of understanding. (CMP) **Wld:** Coordinate with the ODFW and the IDFG in designing forest management programs for wildlife and in maintaining desired wildlife numbers. (CMP) **Wld:** Maintain options for improvement of selected irrigated habitats along the Snake River for wildlife habitat. (CMP)				distributed across its range within eastern Oregon and Washington and western Idaho; 2) locally restricted; 3) restricted to refugia; 4) at risk of extirpation. **Wld-S2:** Priority species for in-depth assessment and development of management and conservation plans include: a) Extinction-prone species; b) Keystone species: Species which influence the occurrence or abundance of other organisms or play an important role in maintaining biological process; c) Indicator species: Species whose occurrence or abundance indicate changes in habitat or human activities; d) Mobile-link species: Species which play a critical role in more than one food chain, plant-animal association, or ecosystem. **Wld-S3:** The following guidelines will be applied in the development of species conservation plans and management scenarios (refer to **Appendix J,** Wildlife note 1): a) Maintain connectivity for all species requiring dispersal and migration habitat either by maintaining/restoring discrete habitat corridors, or by implementing management guidelines that will assure sufficient habitat conditions across the majority of the landscape for dispersal, migration, and recolonization between subpopulations. b) Incorporate habitat redundancy (i.e., surplus habitat, and large habitat areas and populations distributed across the landscape similar to its historical distribution) to anticipate natural variability, the potential for habitat loss, and human ignorance of habitat needs. **Wld-S4:** Establish monitoring protocols and schedules that are sufficient to detect positive and negative population trends. Build such monitoring into permits for human uses of the HCNRA projects, and volunteer programs within the HCNRA (e.g. organized volunteer projects, research by independent scientists and students).

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				Wld-S5: For each alternative in a proposal for human activities within the HCNRA, indicate the expected cost of monitoring for compatibility of the activities proposed in that alternative with HCNRA Section 7(1-6) and for trends in population size of species which may be affected by the activities. Those alternatives which propose activities with no or least impact will be less expensive in terms of monitoring than those activities that are more destructive of the environment and human health.

Scientific Research				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
	The following management direction would replace existing CMP management objectives (page 28).		***Same as alternative A.***	***The following management direction would replace existing CMP management objectives (page 28).***
	Goal: The HCNRA provides research opportunities that contribute to the management, and restoration of the area and to the public benefit. (New)	**Goal:** The HCNRA provides research opportunities that contribute to the management, inventory and monitoring and restoration of the area and to the public benefit. (New)		**Goal:** Much of the HCNRA will serve as a control ecosystem for studying natural restoration from adverse impacts of past human activities. Other areas will serve as an "outdoor laboratory" for studying the consequences of ongoing, least-impact human activities. All information relied upon by HCNRA staff as scientific will have been gathered and interpreted using appropriate scientific methodology. The HCNRA will be widely recognized as a place where nondestructive research opportunities are provided; research relevant to HCNRA goals is encouraged; and relevant research is incorporated into planning and decisionmaking regarding human activities within the HCNRA.
	Sci-O1: Provide research opportunities designed to optimize discovery of useful information for management and restoration activities, and for the advancement of scientific knowledge. Focus research in the Hells Canyon Wilderness on resolution of management-related issues, concerns, and opportunities. (New)	**Sci-O1:** Provide research opportunities designed to optimize discovery of useful information for management and restoration activities, and for the advancement of scientific knowledge. Focus research on resolution of management-related issues, concerns, and opportunities. (New)		
Sci-O: Provide research opportunities designed to optimize the discovery of useful information for HCNRA management and for the advancement of scientific knowledge. (CMP) **Sci:** Establish a committee of scientists and resource managers to identify research needs, potentials, and limitations and to screen research proposals and recommend which projects should be approved. (CMP)	**Sci-S1:** Research projects require a study plan to be approved by the Area Ranger which addresses objectives, methodologies, and peer review parameters. Research study results will be supplied to HCNRA staff upon publication. (New) **Sci-G1:** Explore the feasibility of cooperative agreements with local, county, state, other federal agencies, the Nez Perce Tribe, Idaho Power Company, colleges, universities, and user groups to identify research opportunities and to cooperate in data collection, data sharing, and evaluation of findings. (New) **Sci-G2:** Emphasize research opportunities that provide useful information relative to Section 7 of the *HCNRA Act* and the goals and objectives of the			**Sci-O1:** Establish procedures for encouraging, supporting, and using scientific research relevant to HCNRA goals. **Sci-G1:** Publish, each six months, a list of scientific research questions that would be appropriate for college students classes; graduate student classes theses, and dissertations; scientists; and scientifically-skilled citizens to undertake and which

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Sci: Give priority to research which may best be undertaken in the HCNRA because of its uniqueness. (CMP)	CMP for management of the HCNRA. (New) **Sci-S2:** Require an analysis of research proposals that cause ground disturbance or permanent facilities to ensure compatibility with the goals and objectives of the CMP, the intent of Section 7 of the *HCNRA Act*, and other applicable laws and regulations. (New) **Sci-G3:** Use the Hells Canyon Subgroup to the John Day/Snake Resource Advisory Council to help identify research needs, potentials, and limitations, and to recommend projects for approval. (New) **Sci-G4:** Report current research findings in the annual monitoring and evaluation report. (New) **Sci-G5:** Identify research needs (validation monitoring) through the annual monitoring and evaluation report. (New) **Sci-S3:** Require anyone collecting plants, lichens, or fungi for research, bioprospecting, or herbarium vouchers to obtain an annual permit. This permit requires coordination with the Forest botanist, and will prohibit collection of any federally listed threatened and endangered, or proposed and sensitive species. (FSM 2400, New)			would significantly contribute to realization of HCNRA goals. Refer to **Appendix J**, Alternative N for a list of proposed questions. **Sci-G2:** Prepare a semi-annual report for the scientific community and the public on scientific research and surveys that are being undertaken within the HCNRA, with a summary of each research project and its significance for HCNRA goals. Include information on granting sources to which scientists and students might apply for research support for noninvasive research within the HCNRA. **Sci-G3:** Prepare materials which introduce prospective researchers to the HCNRA goals, and encourage them to undertake research relevant to understanding and allowing natural restoration processes, determining compatibility of human activities with *HCNRA Act* 7(1-6), documenting progress toward HCNRA goals and objectives, and documenting and providing ecosystem and fish and wildlife baseline and trend information. **Sci-O2:** Articulate principles for research on the HCNRA. **Sci-S1:** Establish written principles for experiments in the HCNRA including provisions for peer review; avoidance of environmental disruption; accessibility of results to the public; and sound scientific methodology. **Sci-O3:** Minimize reliance on "professional judgment" for conclusions that can and should be backed by scientific information. **Sci-S2:** Ensure the scientific integrity of discussions and analyses regarding ecosystem and wildlife impacts, conditions, and trends within the HCNRA.
		Sci-G6: Consider research partnerships to better define soil ecological systems including; (New) ▪ Characterization of the status and importance of biological crusts to ecosystem diversity, soil productivity, and soil stability. ▪ Characterization of soil microbiota (species, abundance, habitats, effects on soil productivity) for major soil types. ▪ Characterization of soil burrowing vertebrates and invertebrates and their habitats, and of the relationship between soil burrowing vertebrates and soil productivity ▪ Characterization of reference areas for major soil types representing soil ecosystems in excellent condition. ▪ Characterization of soils, biota, and function of the zone adjacent to streams. **Sci-G7:** Consider initiating partnerships to develop educational materials about ecosystems in the HCNRA. (New)		

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				Sci-G4: Whenever possible, identify methodologies used and scientific and other sources relied upon for conclusions. **Sci-O4:** Monitor all major human activities within the HCNRA (including activities undertaken as recovery or restoration) in conjunction with meaningful control areas free of such activities and no-impact or least-impact alternative activities, in order to determine (a) compatibility of these human activities with the protection and recovery of native ecosystems, wildlife, and vegetation; and/or (b) the comparative movement toward recovery goals. **Sci-O5:** Develop and provide simple educational materials for users of the HCNRA regarding wildlife and ecosystems that will help the users understand and better protect the HCNRA (refer to **Appendix J,** Science note 1). **Sci-G5:** Conduct simple surveys regarding HCNRA users' understanding of fundamental and elementary ecosystem concepts and develop a list of ten to fifteen of the most critical concepts which relate to protection and recovery of HCNRA habitat and ecosystems. Prepare simple, one-page sheets on each concept for display in visitor centers and availability to teachers.

Geologic Resources				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
There is no corresponding management direction for geologic in the existing CMP. Reference Forest Plan (pages 4-46 through 4-48) for existing cave management direction.	***The following would be new management direction for the existing CMP and would supplement Forest Plan management direction for cave management (pages 4-46 through 4-48).***			
	Goal: Provide for the protection of paleontological and unique geologic resources from damage or destruction. Manage paleontological resources for scientific research to the extent consistent with protection. Provide for interpretation and education of unique geologic events and features. (Public LURs, New)			**Goal:** Maintain the natural, geologic features and evolutionary processes of this region
	Geo-O1: Manage caves per Forest Plan management direction for cave management (pages 4-46 through 4-48) and *Federal Caves Protection Act.* (Forest Plan) **Geo-O2:** Restore damaged paleontological and unique geologic resources to the extent practical. (New) **Geo-S1:** Allow for collection of invertebrate and vertebrate paleontological materials only by professional paleontologists/geologists and zoologists with legitimate research interests and research plans. Require collection permits issued by the Area Ranger. (New) **Geo-G1:** All geological research should be coordinated and shared with the HCNRA, particularly consumptive research involving fossil collection, to reduce and/or eliminate redundant collection and research efforts. (New) **Geo-G2:** Consider placing signs at major portals and/or at specific locations where damage to significant fossil-bearing formations is occurring. The goal will be to educate the public about the collection of paleontological materials and associated prohibitions. (New) **Geo-G3:** Continue to identify, inventory, and map paleontological resources. (New) **Geo-S2:** Maintain integrity and scenic quality of geologic features such as caves, rock shelters, talus slopes, natural salt licks, cliffs, rims, limestone outcrops, and uplifts, by avoiding alteration or requiring protection. (New) **Geo-S3:** No person shall destroy, disturb, deface, mar, alter, remove or harm any significant cave or alter the free movement of any animal or plant life. (New) **Geo-G4:** Public access may be limited to prevent damage to special geologic features or other resources, or if there are determined safety hazards to visitors. (New) **Geo-G5:** Provide interpretation of and educational opportunities related to paleontologic resources through off-site methods rather than on-site signing to protect locations of the sites. (New) **Geo-G6:** Inform visitors about the value of special features, management actions being taken to protect their value, and opportunities for public use. Scientific or educational use of special features may be allowed under permit. (New)			**Geo-O1:** Restrict human activities which will alter the natural formation of the land. **Geo-S1:** Rock formations will be kept intact. There will be no gravel pits. The necessity for gravel will be minimized and needed gravel will be transported in. **Geo-S2:** Stream channels and banks will not be hindered in development. **Geo-S3:** Each alternative to a vegetation management proposal will address its potential to protect geological stability. **Geo-O2:** Prepare public educational materials regarding the erosional processes that were central to the formation of Hells Canyon and the distinction between those processes and erosion (e.g., soil loss) that can be caused by human activities such as logging and livestock grazing.

Minerals				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
Reference Forest Plan (pages 4-33 through 4-34) for additional management direction.	***The following would replace existing CMP management direction (page 22) and supplement Forest Plan management direction (4-33 through 34) for minerals:***			***The following would supplement Forest Plan direction and replace the existing CMP.***
	Goal: Emphasize meeting the objectives for which the HCNRA was established with managing mining and its associated activities of valid existing mineral rights. (Public LURs, New)			**Goal:** Exploration for or extraction of minerals or mineral materials on the surface or underground will be undertaken only for enhancement of the native ecosystem.
Min-O: Provide for development of HCNRA minerals if compatible with provisions of the *HCNRA Act* and management direction in this plan. (CMP) **Min:** Evaluate each proposal to develop existing, valid mineral rights on a case-by-case basis and grant approval only if the project can be conducted within the provisions of the *HCNRA Act* and not interfere with meeting the management objectives and direction of this plan. (CMP)	**Min-O1:** Manage common variety mineral materials for the sole purpose of construction and maintenance of facilities within the HCNRA including, but not limited to roads, airfields, trails, and recreation developments. Emphasize the use of common variety mineral material sources from outside of the HCNRA. (Public LURs, New) **Min-S1:** Subject all mining activity, including pan, sluice box, suction dredge, or some other means, to valid existing rights determination as of December 31, 1975 (36 CFR 292.47). Mining activity based on valid existing rights may continue under regulations at 36 CFR 228 Subpart A. (Public LURs) **Min-S2:** Require operating plans (in accordance with 36 CFR 228 Subpart A) to minimize adverse environmental impacts on surface resources. (New) **Min-G1:** The impact of mining activities including, but not limited to, drilling and the development of ingress and egress rights would be minimized and directed away from Wilderness lands and wild and scenic rivers to the extent practicable (36 CFR 292.47). (Public LURs)		**Min-O1:** Manage common variety mineral materials for the sole purpose of construction and maintenance of facilities within the HCNRA including, but not limited to roads, airfields, trails, and recreation developments. (Public LURs) **Min-S1:** Subject all mining activity, whether it be by pan, sluice box, suction dredge, or some other means, to valid existing rights determination as of December 31, 1975. (Public LURs) **Min-G2:** Reclaim abandoned mine portals to minimize risk to public safety and provide wildlife habitat. (New) **Min-S3:** Mineral materials extracted from within the HCNRA, including, but not limited to common varieties of gravel, sand, or stone would be used only within the HCNRA for the purpose of construction and maintenance of facilities such as roads, existing landing strips, trails, and recreation developments necessary for the administration and safe use of the HCNRA. (Public LURs) Exception: facility development in adjacent areas where government to government agreements are made is acceptable. (New)	**Min-S1:** If surface or underground disturbance is proposed in any plan of operation on any mining claims within the HCNRA, a valid rights determination will be completed for the claim before the plan is processed. **Min-S2:** If the claim owner cannot prove that the claim had a discovery of a valuable mineral at the date of the *HCNRA Act*, the plan will not be accepted and the claim will be contested. **Min-S3:** All plans for surface or underground disturbance for the purpose of mining will be opposed as far as law permits. **Min-O1:** Minimize the use of HCNRA mineral materials for construction or maintenance of HCNRA facilities. **Min-S4:** Do not use mineral materials for construction or maintenance of HCNRA facilities for purposes other than minimization of motorized use and protection of the environment. Do not use mineral materials to facilitate speed of travel (by motorized or nonmotorized means) or to provide for the aesthetics of people unfamiliar with natural surroundings. **Min-S5:** Include in all proposals for use of mineral materials for construction on maintenance of HCNRA facilities a range of alternatives that avoid the use of such mineral materials.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Min-G2: Reclaim abandoned mine portals to minimize risk to public safety and provide wildlife habitat. (New)	**Min-G2:** Reclaim abandoned mine portals to minimize risk to public safety, provide wildlife habitat and minimize impact to scenic values. (New)		
	Min-O2: Restore abandoned mineral materials sites; restore existing sites upon closure. (New) **Min-S3:** Mineral materials extracted from within the HCNRA, including, but not limited to common varieties of gravel, sand, or stone would be used only within the HCNRA for the purpose of construction and maintenance of facilities such as roads, existing landing strips, trails, and recreation developments necessary for the administration and safe use of the HCNRA (36 CFR 292.47). (Public LURs) **Min-S4:** Collection of mineral materials including, but not limited to, common varieties of gravel, sand, or stone for noncommerical, personal uses (e.g., landscaping material) would not be permitted (36 CFR 292.47). **Min-S5:** Locate sources of mineral materials outside the HCNRA for projects that benefit the HCNRA. Sources of mineral materials within the HCNRA may be used to benefit the HCNRA if obtaining the materials outside the HCNRA adds significantly to the cost or the transportation of the material would pose a significant safety hazard (36 CFR 292.47). (Public LURs) **Min-S6:** The HCNRA would not be the source of mineral materials for use outside the HCNRA for projects that do not directly benefit the HCNRA (36 CFR 292.47). (Public LURs) **Min-G3:** Develop plans to reclaim abandoned mineral materials sites. Reclamation plans could allow for future closure of existing sites and final reclamation of the sites. (New) **Min-G4:** Site reclamation may include contouring the land, re-establishing vegetation, and other measures deemed appropriate by the Area Ranger to blend the site into the surroundings environment and meet the goals and objectives of this plan (36 CFR 292.47). (Public LURs) **Min-S7:** Extraction of mineral materials would be prohibited on Wilderness lands and wild and scenic rivers except for trail reconstruction projects (36 CFR 292.47). (Public LURs)		**Min-S4:** On public lands, collection of mineral materials including, but not limited to, common varieties of gravel, sand, or stone for noncommerical, personal uses (e.g., landscaping material) would not be permitted. (New) **Min-G3:** Develop plans to reclaim abandoned mineral materials sites. Reclamation plans could allow for future closure of existing sites and final reclamation of the sites. (New) **Min-G4:** Site reclamation may include contouring the land, re-establishing vegetation, and other measures deemed appropriate by the Area Ranger to blend the site into the surroundings environment and meet the goals and objectives of this plan (36 CFR 292.47). (Public LURs) **Min-S8:** Analysis for using rock sources for common variety minerals for site-specific projects would consider the need for each pit, stockpiling common variety material, future use, closure, and rehabilitation (36 CFR 292.47). (Public LURs)	
	Min-S8: Analysis for using rock sources for common variety minerals for site-specific projects would consider the need for each pit, stockpiling common variety material, future use, closure, and rehabilitation (36 CFR 292.47). (Public LURs)	**Min-S8:** Analysis for using rock sources for common variety minerals for site-specific projects would consider the need for each pit, stockpiling common variety material, topsoil, location, future use, closure, rehabilitation and other resource objectives (36 CFR 292.47). (Public LURs)		

Land Management and Special Uses				
Alternative A	**Alternative B**	**Alternative E-modified**	**Alternative W**	**Alternative N**
Reference Forest Plan (pages 4-71 through 4-85) for additional management direction.	***The following would replace existing CMP management direction (pages 41-43) and supplement Forest Plan management area direction (pages 4-71 through 4-85) for lands and special-uses:***			***The following would supplement Forest Plan direction and replace the existing CMP.***
	Goal: Manage landownership patterns to best meet the objectives for which the HCNRA was established. Implement the standards established for the use and development of private lands within the HCNRA. (New)			**Goal:** The greatest possible respect will be afforded both private land and activities and public land ecosystems and values.
Lan-O: Manage land ownership patterns to best meet the intent for which the HCNRA was established. (CMP) **Lan-General:** Retain the current level of private land ownership unless a particular piece of land is needed for recreation purposes. Lands needed for recreation purposes will be purchased in fee except for those cases where a right-of-way would accomplish the desired objective. (CMP) Purchase partial interests when private land is being use, or is threatened to be used, outside of the standards prescribed by the private land use regulations and when county control through their ordinances in not effective. Consider purchasing in fee if the partial interest value is in excess of 80 percent of the total appraisal value of the property. (CMP) Give prompt and careful consideration to any offer from a willing seller. (CMP) Criteria have been established and private land parcels have been ranked as to their priority for acquisition. This priority list will be used as a guide if choices have to be made between purchases because of funding limitations. It is on file at National Forest Headquarters in Baker City, Oregon. (CMP)	**Lan-O1:** Coordinate with comprehensive land management plans for Baker and Wallowa counties in Oregon, and Idaho, Nez Perce, and Adams counties in Idaho in the implementation of Private LURs. (Private LURs) **Lan-S1:** Monitor assignments and changes in private land categories: 1) farm, forest, grazing land; 2) mining land; 3) residential land; and 4) commercial land; pursuant to the Private LURs. (Private LURs) **Lan-S2:** Monitor uses on private lands for conformity with standards of compatible land use and development pursuant to the Private LURs. (Private LURs, 36 CFR 292.23) **Lan-S3:** Determine compliance and noncompliance of existing or proposed use or development on private lands pursuant to Private LURs. (Private LURs 36 CFR 292.24) **Lan-S4:** Give prompt and careful consideration to any offer from a willing seller, if adequate funds are available. (CMP) **Lan-S5:** Acquire fee title or partial interests when private land is being used, or is threatened to be used, outside standards prescribed by the *Private LURs* and when county regulation, through their ordinances, is not effective. Consider purchasing in fee, on a willing seller basis, if the partial interest value is in excess of 80 percent of the total appraised value of the property. (Private LURs) **Lan-S6:** Manage access to nonfederally-owned lands within the boundaries of the HCNRA in accordance with the application requirements of 36 CFR 251.54. Access authorizations would secure owners reasonable use and enjoyment of those lands, based on traditional uses of such parcels (36 CFR 292, subpart E) and the intent of the following land categories 1) farm, forest, grazing land, 2) mining land, 3) residential land, and 4) commercial land (36 CFR 292.22), provided the owner complies with the rules and regulations applicable to ingress and egress to or from the HCNRA (36 CFR 251 Subpart D). (Private LURs) **Lan-S7:** Manage right-of-way acquisition for motorized and nonmotorized access pursuant to FSM 5460, FSH 5409.17, and the right-of-way acquisition plan on file at National Forest Headquarters in Baker City, Oregon. (Forest Plan, FSM, 5460)	**Lan-O1:** Coordinate with comprehensive land management plans for Baker and Wallowa counties in Oregon, and Idaho, Nez Perce, and Adams counties in Idaho in the implementation of Private LURs. (Private LURs) **Lan-S4:** Give prompt and careful consideration to any offer from a willing seller if adequate funds are available. (CMP) **Lan-S5:** Manage access to nonfederally-owned lands within the boundaries of the HCNRA. Access authorizations would secure owners use and enjoyment of those lands. (Private LURs) **Lan-G1:** Participate fully in the Federal Energy Regulatory Commission (FERC) relicensing process for Hells Canyon Dam in cooperation with Idaho Power Company and other local, state, federal, and tribal governments. (New)	**Lan-O1:** Identify key HCNRA watershed and wildlife areas and their location with respect to public and private lands within the HCNRA. **Lan-O2:** Prepare an inventory of key watershed and wildlife areas that exist on private lands within and adjacent to the HCNRA. Examine the comparative potential of both private and public ownership of these key areas to provide essential habitat conditions and biological connectivity for native fish and wildlife populations and species. **Lan-G1:** Review and alter established criteria and ranking for priority of purchase of private land parcels in light of bioregional and ecological information obtained since designation of the HCNRA. **Lan-S1:** Give prompt and careful consideration to any offer from a willing seller. **Lan-O3:** Prepare an inventory of intermixed public/private landownership in order to identify potentials for consolidation of public ownership in key watershed and wildlife areas.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
	Lan-G1: Refer to criteria established for the acquisition of private land parcels (on file at National Forest Headquarters in Baker City) when there is a willing seller and the acquisition meets FS management objectives. Acquisition may occur by exchange or by purchase. Lands on the Snake River, Wilderness properties, and Idaho inholdings have higher priority for acquisition than other HCNRA lands. Lands that support known populations of threatened, endangered, proposed, or sensitive species will also have a high priority for acquisition. (CMP, New)	**Lan-G1:** Refer to criteria established for the acquisition of private land parcels (on file at National Forest Headquarters in Baker City) when there is a willing seller and the acquisition meets FS management objectives. Acquisition may occur by exchange or by purchase. Lands on the Snake River, Wilderness properties, and Idaho inholdings have higher priority for acquisition than other HCNRA lands. Lands that support known populations of threatened, endangered, proposed, or sensitive species will also have a high priority for acquisition. Acquisition of lands with existing structures, both historic and otherwise, will be considered on a case-by-case basis. Consider future use of structures in the acquisition process and prioritize those lands that do not increase future (structure) maintenance obligations. Facilities associated with potential acquisitions would be evaluated for administrative or historic values with a site-specific future use determination. The determination would not preclude acquisition of the site in high priority areas such as the Wilderness. (CMP, New)		
Lan-Rapid River Corridor: Present use of private land is livestock grazing in conjunction with NFS grazing allotments. This use is within the intent of HCNRA management objectives as long as it is done without reducing the water quality of the Rapid River. If any change of use occurs, or is likely to occur, that is not in furtherance of the management objectives for the Rapid River corridor, applicable private lands shall be purchased in fee. (CMP) **Lan-Snake Wild and Scenic River Corridor:** Those lands administered by the BLM will be transferred to the FS. Private lands needed for recreation development for public use will be purchased in fee. Acquisition of other private lands will be limited to those interests needed to control use and development incompatible with management direction for the Snake River corridor. (CMP)	**Lan-G4 for the Rapid River Corridor:** Present use of private land is livestock grazing in conjunction with NFS grazing allotments. This use can continue on public lands as long as the values for which the river was designated a WSR are protected *(WSR Act)*. If any change of use occurs, or is likely to occur, that is not in furtherance of the management objectives for the Rapid River corridor, utilization of section 11(b)(1) of the *WSR Act* to provide limited financial or other assistance would be pursued. (CMP, New) **Lan-G2 for the Snake Wild and Scenic River Corridor:** Acquisition of private lands would be limited to those interests needed to regulate use and development that is incompatible with management direction for the Snake River corridor. (Private LURs) **Lan-G3 for Wilderness:** Acquisition of Wilderness lands would be in fee as the opportunity occurs. (New) **Lan-G5 for Other HCNRA lands:** The primary means of acquisition would be the purchase of partial interests when landowners fail to meet the provisions of the *Private LURs* and if regulation through county ordinances is not effective. Acquisition of lands needed for recreation purposes would be in fee, except for those cases where a right-of-way would accomplish the desired objective. Exchange of lands may be conducted if the exchange would result in a more economically viable farm and ranch unit and provide for improved management of HCNRA resources. (CMP, New)	**Lan-G4 for the Rapid River Corridor:** Present use of private land is livestock grazing in conjunction with national forest grazing allotments. This use is within the intent of HCNRA objectives as long as it is done without reducing the water quality of the Rapid River. If any change of use occurs, or is likely to occur, that is not in furtherance of the management objectives for the Rapid River corridor, utilization of section 11(b)(1) of the *WSR Act* to provide limited financial or other assistance would be pursued. (CMP) **Lan-G3 for Wilderness:** Acquisition of Wilderness lands would be in fee as the	**Lan-S2:** Purchase partial interests when private land is being used, or is threatened to be used, outside of the standards prescribed by the *HCNRA Act* and HCNRA private land use regulations. **Lan-O4:** Prepare an inventory of public nonmotorized access and private land barriers to such access to HCNRA public lands and trails in order to identify key needs for reasonable nonmotorized access (refer to **Appendix J,** Landownership note 1). **Lan-S3:** Purchase Wilderness lands in fee as the opportunity arises.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
Lan-Wilderness: There are only 35 acres of other ownership (private) in the Hells Canyon Wilderness. If the Westside Reservoir Face Wilderness Study Area and the McGraw Roadless Area were classified wilderness, there would be an additional 137 and 286 acres, respectively, of private land. Acquisition of these lands shall be in fee as the opportunity occurs. (CMP) **Lan-Other HCNRA Lands:** The primary means of acquisition will be the purchase of partial interests when landowners fail to meet the provisions of the *HCNRA Act* and prescribed land use standards and if control through county ordinances is not effective. Acquisition of lands needed for purposes will be in fee. Exchange of lands may be conducted if the exchange would result in more economically viable farm or ranch unit. Actively seek the transfer of lands administered by the BLM to the NFS. (CMP) **Lan-O:** Be responsive to public and private needs for the use of National Forest lands consistent with HCNRA management objectives. (CMP) **Lan:** Consider each request for a special-use permit on a case-by-case basis to see if it is consistent with the intent of the *HCNRA Act*. Discourage uses that detract from HCNRA values. Favor uses that maintain or enhance HCNRA values and satisfy a public need. (CMP) **Lan:** The FS will continue to work with Idaho Power Company and other private and federal energy suppliers to identify appropriate transmission corridors for the future that will be most compatible with the purpose of the *HCNRA Act*. (CMP)	**Lan-S8:** Manage special uses in accordance with policies and procedures as outlined in FSM 2700 and FSH 2709.11. (Forest Plan) **Lan-G6:** Consider issuing permits for special uses (irrigation ditches, fisheries facilities, access, and other miscellaneous uses) on an individual case basis, provided the use is compatible with Section 7 of the *HCNRA Act* and meets the intent of the goals, objectives, and standards and guidelines in the Forest Plan. (New) **Lan-G7:** Cooperate with Idaho Power Company and other private and federal energy suppliers to identify appropriate transmission corridors for the relocation of existing lines, that would be most compatible with the purpose of the *HCNRA Act*. No new lines or corridors would be considered unless present corridors are vacated. (New) **Lan-G8:** Participate fully in the Federal Energy Regulatory Commission (FERC) relicensing process for HCC in cooperation with Idaho Power Company and other local, state, federal, and tribal governments to identify appropriate terms and conditions for relicensing and management of right-of-ways. (New)	**Lan-G7:** Cooperate with Idaho Power Company and other private and federal energy suppliers to identify appropriate transmission corridors for existing lines and future lines, that would be most compatible with the purpose of the *HCNRA Act*. No new lines or corridors would be considered unless present corridors are vacated. (New)	opportunity occurs. (New)	

<table>
<tr><th colspan="5">Monitoring and Evaluation</th></tr>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr><td>Refer to Appendix F for a summary of existing monitoring direction.</td><td colspan="3">Various activities would be monitored to provide an evaluation of the effect of management activities upon the HCNRA environment. Evaluations would measure compliance in achieving the goals and objectives of the Forest Plan and meeting the intent of the enabling legislation. Based upon an evaluation of the monitoring results, the planning team would recommend to the Forest Supervisor such changes to the management direction for the HCNRA.

Monitoring and evaluation has a distinctly different purpose and scope. In general, monitoring is designed to gather the data necessary for evaluation. During evaluation, data provided through monitoring are analyzed and interpreted. This process would be conducted and displayed through the annual Forest Plan Monitoring and Evaluation Report.

The Forest Plan Monitoring and Evaluation Report provides an avenue in which management accomplishments, trends, and needs for the HCNRA are reported and evaluated by the responsible managers. Because of the unique nature of the HCNRA and the more refined management direction that would be established as part of a selected alternative, there is a need to conduct more specific monitoring and evaluation within the HCNRA.

The following would supplement existing monitoring and evaluation direction as noted in Alternative A. (New)</td><td>Goal: The beneficial and adverse effects of human activities within the HCNRA will be observed and studied to determine whether they are compatible with HCNRA Act and CMP goals, objectives, and standards and guidelines (refer to Appendix J, Monitoring note 1). Because Section 7 of the HCNRA Act mandates protection and enhancement of HCNRA unique, rare, endemic, and outstanding ecosystems, habitat, and species, this monitoring will emphasize measurement of preservation, recovery, and health of these elements in relation to stated goals of commercial and recreational human activities within the HCNRA. This is in distinct contrast to risk-based monitoring, which presumes human activities are compatible unless shown to be causing harm (refer to Appendix J, Monitoring note 2).

Monitoring will be linked inextricably with commercial and recreational human activities so as to meet the legal and management obligation to determine whether those activities are compatible with HCNRA Act Section 7(1-6) priorities and CMP goals, objectives, standards, and guidelines. It will be unacceptable to continue or permit activities that are not being monitored for their predicted beneficial and potential adverse impacts on the HCNRA ecosystems (refer to Appendix J, Monitoring note 3).</td></tr>
<tr><td></td><td>Refer to Appendix F for the monitoring and evaluation plan. (New)</td><td>Mon-O1: Monitor and evaluate activities and outputs, to ensure activities conform to the goals, objectives, standards and guidelines of this plan. Refer to Appendix F for the monitoring and evaluation plan. (New)

Mon-S1: Project-planning decision documents would disclose applicable monitoring elements and identify those monitoring elements required before, during and following project implementation. (New)</td><td>Monitoring direction would be the same as that identified in Alternative A with the following additions:

Mon-S1: Implement monitoring of dust and CO2 on upper Imnaha Road. (New)

Mon-G1: The FS would actively pursue cooperative agreements for monitoring and inventory with</td><td>Mon-O1: Monitor permitted commercial and recreational human activities with scrutiny that is comparable to their potential for incompatibility with HCNRA Act Section 7(1-6). For instance, a potentially highly impacting activity will be closely monitored; a more environmentally benign activity will be less closely monitored.

Mon-S1: All permits for human activities will be accompanied by a finding of compatibility based on field</td></tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
		Mon-G1: The FS would actively pursue cooperative agreements for monitoring and inventory with HCNRA users, organizations, and the Nez Perce Tribe. (New) ***Note to the reader:*** ***Refer to Appendix F for the monitoring and evaluation plan.***	HCNRA users, organizations, and the Nez Perce Tribe. (New)	measurements of key ecosystem indicators and stated goals. Such findings are to be renewed at least every two years. **Mon-S2:** A monitoring report will be produced annually for public review. **Mon-O2:** Determine if goals, objectives, and standard and guidelines are being approached or met on schedule. **Mon-S3:** All goals, objectives, and standards and guidelines will be written in such a manner as to be measurable with concrete ecosystem indicators. Reliance on "professional judgment" without evidence will be minimized, so that conclusions and ecosystem conditions can be independently verified. Monitoring methods and indicators will be: ▪ Relevant: Evaluates conditions identified in G/O/SGs; ▪ Sensitive: Quickly detects change, shows trends, identifies critical features; ▪ Available: Inexpensive, easily applied; ▪ Measurable: Accurately quantifiable with acceptable methods; ▪ Defensible: Minimally subject to individual bias; ▪ Verifiable: Allows others applying the same methods to achieve similar results; and ▪ Inclusive: Avoids reductionism, where feasible. **Mon-S4:** Annually report whether goals, objectives, standards and guidelines are being met or not. For those that are not being met, indicate plans for meeting them or of eliminating the activity that is preventing their attainment.

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				Mon-G1: Reduce the costs of monitoring through selection of no-impact and least-impact alternatives for proposed human activities, wherever feasible. (In other words, acknowledge that monitoring of activities that are potentially ecologically damaging is necessarily more expensive than monitoring activities that are less or unlikely to be ecologically damaging.) **Mon-S5:** All proposals to permit or undertake an activity will include a description of the monitoring that will be necessary to (a) determine the compatibility of each alternative with Section 7(1-6) and specific CMP G/O/SGs and (b) revisit that finding every two years. Estimated costs of the differential monitoring that will be required to examine the compatibility of each alternative with HCNRA Section 7(1-6) will be included. **Mon-S6:** If the costs of biannual monitoring necessary to prepare findings of compatibility for alternatives that could cause adverse impacts will not be affordable within the HCNRA budget, the no-impact or (if no-impact is not possible) least-impact alternative will be selected. **NEA-S1:** Each alternative proposed in an Environmental Assessment or an Environmental Impact Statement will be accompanied by a description of the monitoring activities and schedule that will be necessary to insure, on an ongoing basis, compatibility of the activities proposed in that alternative with Section 7(1-6) of the *HCNRA Act*. In addition, an estimate of the costs that will be necessary to carry out the monitoring for that alternative's compatibility will be provided. Those alternatives with greater potential to be incompatible with Section 7(1-6) will generally entail more intensive and expensive monitoring. In this way, the ecosystem "costs" of particular alternatives will be partially internalized

<table>
<tr><th colspan="5">Management Areas</th></tr>
<tr><th>Alternative A</th><th>Alternative B</th><th>Alternative E-modified</th><th>Alternative W</th><th>Alternative N</th></tr>
<tr>
<td>Reference the Forest Plan pages 4-1 through 4-98 for a description of existing management area direction. See Figure 1-2 in Chapter 1 for a map of management areas. (Forest Plan)</td>
<td colspan="3">Alternatives B, E-modified, and W do not propose changes to management areas as described under Alternative A. Management area name changes would reflect the stated goals and objectives of the alternatives. Refer to Chapter 1, Other Issues, and Chapter 3, Compatibility, for this discussion. (Forest Plan)</td>
<td>Goal NRA-G1: To meet the goals of the HCNRA Act regarding ecosystem processes, management areas will be those presented by the major Hells Canyon ecosystems: Forest, Grassland, and Riparian. Management of human activities will be planned for within the basic needs of these areas. The three ecosystems of course integrate with each other, providing structural, functional, and species diversity and mosaics of a natural scale: A grassland scab patch or grass sward understory will be present in forest habitat; a clump or grove of trees will be located in grassland habitat, and riparian and aquatic habitats are located within and central to both grassland and forest habitat.

[Note: Other ecosystem-based management areas such as watersheds could similarly be used. The Native Ecosystem Alternative employs "forest, grassland, and riparian" as one useful ecosystem-based delineation of management areas.]

The health of HCNRA land, water, and wildlife is interdependent with the health of the total bioregion.

Management of micro-habitats within the three general habitat areas will only mean some adjustments to the management for protection and recovery of forest, grassland, or riparian habitat

NRA-O1: Draw the basic HCNRA management areas to approximate the predominantly forested areas, predominantly grassland (or nonforested) areas, and major riparian/aquatic areas. Except as contradicted by on-site information, streamside management zones are 300 feet on each side of perennial streams and 150 feet surrounding all other riparian areas (i.e., all springs, seeps, and wetlands, and on each side of seasonal streams which generally flow</td>
</tr>
</table>

Alternative A	Alternative B	Alternative E-modified	Alternative W	Alternative N
				for more than one month annually, and which retain distinctly riparian vegetation). The extent of riparian habitat at a given site (e.g., presence of riparian vegetation and/or riparian-associated wildlife, banks or other topography) may necessitate recognition of larger or smaller riparian areas at specific sites. **NRA-O2:** Incorporate into decision making the reality that human activities and uses permitted at some level by the CMP have multiple and cumulative impacts on the three major HCNRA ecosystems and the bioregion. **NRA-S1:** Each alternative considered for proposed human activities and uses in the HCNRA will be characterized as to potential contribution to existing and foreseeable adverse and beneficial impacts on the three major HCNRA ecosystem areas and the bioregion, in light of other past, present, and foreseeable human activities and uses **NRA-S2:** Monitoring of all human activities within the HCNRA and on private lands within the HCNRA boundaries will document effects on all related HCNRA management areas.