

Executive Summary

The Caribou National Forest Land and Resource Management Plan (1985) currently directs management of the Curlew National Grassland. Revision of management plans is directed by the National Forest Management Act (NFMA), regulations, 36 Code Federal Regulations (CFR) 219 and the Forest Service Directives System (Forest Service Handbook 1909.12)

The Planning Unit

The Curlew National Grassland (hereafter generally referred to as the “Grassland”) is a portion of the Caribou-Targhee National Forest Administrative Unit. Specifically administered as a part of the Westside Ranger District, the Grassland is situated in southeast Idaho, north of the Utah-Idaho State line. It encompasses approximately 47,600 acres of federal land intermixed with private land. It is located approximately 17 air miles west of Malad, Idaho. The Forest Headquarter’s Office is located at 1405 Hollipark Drive, Idaho Falls, Idaho 83401. (See Vicinity Map on reverse side of title page.)

Federal Tribal Trust Responsibilities

The Shoshone-Bannock Tribe has ancestral Treaty Rights on all public domain lands reserved for National Forest purposes that are presently administered by the Caribou-Targhee National Forest. The relationship of the United States government with American Indian tribes is based on legal agreements between sovereign nations. The Fort Bridger Treaty of July 3, 1868 provided for the establishment of the Fort Hall Indian Reservation. It also granted hunting and fishing rights to tribal members on “all unoccupied lands of the United States.” These rights are still in effect, and management actions in this plan recognize valid rights. Consultation with the Shoshone-Bannock Tribal Council is required on land management activities and allocations that could affect these rights. Forest Supervisor Reese has consulted with the Shoshone-Bannock Tribal Council regarding this amendment and Grassland Plan (FEIS, Chapter 6).

Changes Made Between the Draft EIS and the Final EIS

Major changes between the Draft EIS and the Final EIS include the creation and analysis of a new alternative, Alternative H, based on comments received on the Draft EIS, and an updated Economic Analysis that reflects economic conditions in Oneida County. The Economic Section in the Draft EIS, Chapters 3 and 4, has been replaced with the updated analysis. The economic update also required changes in the Executive Summary, the Issue Indicators in Chapter 1, Table 2.24 at the end of Chapter 2, and the Baseline Indicators Economic Section in Chapter 3. The Economic Analysis in Chapter 4 used two different models (F.E.A.S.T. and ImplanPro) to determine economic effects. Appendix B and the Economic Section in the Literature Cited/Consulted Chapter have been updated to reflect this new analysis.

Chapter 6, Public Involvement, includes the Content Analysis of the public comments received on the Draft EIS. It also includes a new section on the public meeting held in Malad, Idaho on December 7, 2000 on the Draft EIS and other briefings held subsequently.

All Appendices have been updated to reflect Alternative H. In addition, a new Appendix I has been added that addresses Sage grouse population trends. Appendix J, a new Appendix, includes the Biological Evaluation and Biological Assessment for Alternative H, the selected alternative in the Record of Decision. Appendix K, another new addition, is an example of a risk assessment for the herbicide Tebuthiuron. Other changes are shown in a new appendix, Appendix L. Appendix L includes a comprehensive listing of all changes made between the Draft EIS and Final EIS by chapter and subheading.

Purpose and Need for Action

The purpose and need for the proposal is to amend existing and create new management direction for the vegetation, riparian, livestock grazing, wildlife and other resources and uses on that portion of the Curlew National Grassland administered by the Forest Service, based on a proposed desired range of future conditions. Direction from the Chief of the Forest Service requires that a separate management plan for each of the National Grasslands be developed. The Caribou National Forest proposes to complete an EIS to amend existing and create new management direction for the Curlew National Grassland. Current direction is found in the 1985 Land and Resource Management Plan for the Caribou National Forest and Curlew National Grassland.

The EIS addresses ecological patterns, processes, and management direction for both riparian and upland resources; develops direction for restoration of rangeland vegetation composition; develops and implements livestock grazing standards; develops soil and watershed management direction; develops and implements direction for sagebrush associated/obligate wildlife species habitat; and develops policy for future utility proposals. The amendment will include ecosystem management goals, objectives, standards and guidelines, and monitoring strategies specific to the Grassland.

Proposed Action (From the Notice of Intent)

The Forest Service proposes to prepare an Environmental Impact Statement (EIS) to document the analysis and disclose the environmental impacts of the proposed actions to amend the direction for resource management on the Curlew National Grassland (Grassland) as contained in the Land and Resource Management Plan for the Caribou National Forest and Curlew National Grassland. The Grassland is located approximately 17 air miles west of Malad City, Idaho. The proposed actions are located entirely within the 47,600-acre portion of the Curlew National Grassland administered by the Forest Service.

The Proposed Action applies a riparian/wetland area prescription which establishes a zone of special emphasis that restricts activities to those which will not compromise prescription goals or

reduce water quality below that needed to comply with state water quality requirements and sustain beneficial uses. Riparian forage utilization is not to exceed 30 percent or a 6-inch minimum stubble height (whichever is attained first) directly adjacent to the stream channel

The Proposed Action applies Grassland-wide upland forage utilization levels not to exceed approximately 50 percent on seeded sites (dry weight) and 45 percent on native vegetation sites (dry weight). The Grassland has been managed (through allotment management plan direction) to not exceed 60 percent forage utilization regardless of vegetation type.

The Proposed Action sets a goal of managing for a diversity of sagebrush canopy cover class ranges on the Grassland: 10 percent to 30 percent of the Grassland acres in early seral status (0-5 percent canopy cover; early age and structure); 40 percent to 60 percent of the Grassland acres in mid seral status (6-15 percent canopy cover; mid-age and structure); 30 percent to 50 percent of the Grassland acres in late seral status (greater than 15 percent canopy cover; mature and over mature age and structure).

Other vegetation management direction includes an objective to treat 4,000 to 6,000 acres of dominant bulbous bluegrass sites (an undesirable grass species) and revegetate with desirable native and non-native grass, forbs and shrub species over a ten-year period. In addition to the treatment of bulbous bluegrass sites, the Proposed Action would treat, over a ten-year period, between 1,000 and 3,000 acres of sagebrush with canopy cover greater than 15 percent. Vegetation treatment proposals would treat between 5,000 and 9,000 acres over ten years.

The Proposed Action designates the Sweeten Pond and tree row areas as special wildlife areas and sets forth objectives to construct an additional impoundment in the Sweeten Pond area and establish an additional ten miles of tree rows over the next ten years. The Proposed Action provides guidance for the management of Forest Service designated sensitive species. The Proposed Action provides guidance for sage grouse habitat management, including deferring habitat manipulation practices within a 0.25-mile radius of active sage grouse leks, and provides for a seed mix that includes vegetation species preferred by upland birds during the pre-nesting, nesting and brood-rearing periods, and guidance to provide residual cover to meet the needs of spring period ground nesting wildlife.

The Proposed Action includes the identification and development of monitoring protocols specific to Grassland resources.

The Proposed Action sets a goal to engage in collaborative efforts with adjacent landowners, Soil Conservation District and the Natural Resource Conservation Service to conserve soil, watershed and riparian resources.

Issues

Throughout the planning process, the interdisciplinary team (IDT) gathered public input on issues, the proposed action and alternatives to the proposed action. The scoping process included a public meeting, briefings with interested stakeholders, letters and updates, and the development of a web homepage. These activities were used to identify the issues, alternatives, and concerns

to be considered in the development of a Grassland Land and Resource Management Plan and to keep the public informed and involved throughout the planning process. (See Chapter 6 of the DEIS for a full discussion of public involvement activities.)

Three significant planning issues were identified through this public process.

● **RIPARIAN & WATERSHED MANAGEMENT**

Watershed Condition

Watershed conditions on portions of the Grassland are below potential and need to be improved through restoration of natural soil protection features including microbiotic crusts (mosses, lichens, cyanobacteria, cryptogams and liverworts).

Riparian Condition

Many stream channels and riparian areas on the Grassland have been degraded and need to be improved to attain properly functioning condition.

● **VEGETATION/WILDLIFE HABITAT MANAGEMENT**

Sagebrush Canopy Cover

Some commentors advocate a reduction in sagebrush canopy cover to maintain/increase forage production (sagebrush canopy cover in less than 15 percent). Other commentors advocate that sagebrush canopy cover is currently not adequate to meet sage grouse nesting and wintering habitat needs (sagebrush canopy cover in greater than 15 percent). Still others advocate that sagebrush canopy cover should be managed for properly functioning condition (10 percent to 30 percent of sagebrush acres in the 0-5 percent canopy cover class; 40 percent to 60 percent of sagebrush acres in the 6-15 percent canopy cover class; and 30 percent to 50 percent of sagebrush acres in the greater than 15 percent canopy cover class).

Mountain Brush Management

Some commentors advocate that mountain brush communities (serviceberry and bitterbrush) be preserved or maintained at current densities and conditions for nesting upland species and big game. Some contend mountain brush communities should be managed in a healthy matrix (multiple ages and structures) using whatever tools are appropriate. Historically these vegetation types have been managed with prescribed fire, chaining and herbicides.

Vegetation Understory Composition

Bulbous bluegrass is a non-native, sod-forming species which provides for watershed stability. However, bulbous bluegrass has low value for wildlife habitat and livestock forage. Some commentors advocate bulbous bluegrass should be replaced with more desirable species.

Some commentors advocate that treated areas should be reseeded with native grasses, forbs and shrubs (primarily sagebrush) to benefit wildlife. Historically, treatments have been

reseeded with non-native species (primarily crested wheatgrass) to assure vegetation establishment and to benefit livestock.

Wildlife Habitat Management

Some commentors advocate that sagebrush treatments should be "small scale" (less than 20 acres) to reduce the impacts to wildlife species (including sage grouse) and promote re-establishment of sagebrush. Historically, sagebrush treatments have been on the scale of hundreds of acres (fields) for efficiency. Sagebrush in the Curlew Valley has been converted to other uses resulting in habitat fragmentation and reduced connectivity for sagebrush dependent and associated species. The size and location of future vegetation treatments within the Grassland have the potential to further affect connectivity and fragmentation.

Some commentors contend that the current use level (~60 percent) provides sufficient forage for the current stocking levels and sage grouse and sharp-tailed grouse nesting habitat. Others contend the use level is too high and should be reduced to provide higher quality sage and sharp-tailed grouse habitat. Prescribed fire is currently used to meet a variety of resource objectives.

Some commentors contend that the use of prescribed fire is inappropriate for sage grouse habitat management. Others contend prescribed fire is the preferred tool to meet resource objectives. Grassland management may affect native and desired non-native wildlife population viability. Some commentors contend that tree rows harbor sage grouse predators. Others contend that tree rows provide other values including wildlife habitat.

● **SOCIAL AND ECONOMIC FACTORS**

Economic and Social Values

Changes in Grassland management may have social and economic effects such as impacts on jobs, income, and county revenues. The cost of maintaining a level of head-months should be justified by the monetary benefits. The cost of bulbous bluegrass treatments should be justified by the monetary benefits.

Reserves/Preserves

Several commentors advocate managing a significant portion of the Curlew National Grassland as a "reference reserve" or a "fish, wildlife & plant preserve." Currently most of the Grassland is managed for a variety of uses including livestock grazing. A small portion of the Grassland is currently managed exclusively for wildlife (Sweeten Pond area & tree rows) and no livestock grazing is allowed.

Livestock Grazing

Some commentors contend that current livestock grazing utilization levels are adversely affecting the sustainability of plant communities, and watershed stability. Others contend that the current livestock grazing utilization level (~60 percent) is providing for sustainable plant communities and other resource values.

Process Used to Formulate Alternatives

Alternatives under consideration were developed from the following sources:

1. Monitoring and evaluation of current Grassland resources.
2. A review of existing legislation, including the Code of Federal Regulations, the National Forest Management Act and a review of Forest Service Manual policy and direction.
3. A review of current management direction in the 1985 Caribou National Forest and Curlew National Grassland Land and Resource Management Plan.
4. An assessment of existing conditions, disclosed in the *Initial Analysis of the Management Situation (AMS) for the Curlew National Grassland* dated February 1999 and subsequent public comments;
5. Issues identified during the public scoping process as a result of the release of the “Analysis of the Management Situation” in February 1999; the Notice of Intent and Scoping Statement released May 3, 1999; and comments received at a public meeting held in Malad, Idaho in November 1999;
6. Management concerns identified by the Interdisciplinary Team, including a review with the Intermountain Region in Ogden, Utah.

Alternatives Considered But Dropped From Analysis

The following management scenarios or alternatives were considered in detail by the interdisciplinary team during the development of alternatives, but they were eliminated from detailed consideration in the analysis process for the reasons described under each scenario.

Return to Private Land

This alternative was eliminated from detailed consideration, because general regulations pertaining to the national grasslands set forth at 36 CFR 213 (hereafter “the 213 Regulations”) direct that: the national grasslands to be “permanently held” by the Department of Agriculture. The interdisciplinary team believes a considerable real value and use for the public exists on the Grassland and that these values and uses are the primary reason for maintaining the Grassland as public land. The Forest Service does not have the authority to transfer Grassland lands into private ownership.

Turn Administration of the CNG Over to the Bureau of Land Management

This alternative was eliminated from detailed consideration, because the Forest Service does not have the authority to transfer Grassland lands to the Bureau of Land Management. Under Title III of the Bankhead-Jones Act, the Secretary of Agriculture has the authority to transfer

Grassland lands to another federal agency for public purposes. To date, the Secretary of Agriculture has not indicated any inclination towards such a transfer. In addition, the Chief of the Forest Service recognized the uniqueness of the National Grasslands in his memorandum to Regional Foresters, dated April 22, 1999, by requiring individual management plans be prepared for each of the National Grasslands under Forest Service administration.

Research Mandate for Sustainable Agriculture

This alternative was eliminated from detailed consideration, because use of the Grassland solely for research is not consistent with the purposes for which the Grassland was established or the tenets of the Bankhead-Jones Act, or the broader tenets of the National Forest Management Act. While the Forest Service has a research mission, in part, managing the Grassland solely for research would not provide for soil stabilization, promoting the development of grassland agriculture, developing and protecting recreational facilities and protecting fish and wildlife under the applicable laws.

Creation of Wilderness Areas

This alternative was eliminated from detailed consideration, because lands within the Grassland do not meet the criteria for wilderness recommendation or designation. A network of roads and fences mark most areas of the Grassland. Creating large contiguous areas of lands would require purchasing intermingled private land.

Intermingled Lands Management

This alternative was dropped from consideration, because the Team felt this alternative, with the exception of proposed lower forage utilization rates, was basically the same as Action Alternatives B and F. Over time, adjacent land use could change which would negate land allocations that would be made in this alternative. Pasture boundaries did not lend themselves to this approach.

Intermingled Land Management Focused on Riparian and Wildlife Habitat

Because this alternative only varied slightly from the Intermingled Lands Management Alternative, it was combined with that alternative and dropped as a stand-alone alternative.

Alternative X – Restore Grassland to Native Plant and Animal Pre-settlement Conditions

Alternative X was dropped from consideration, because major watershed disturbance could be expected in the short-term to replace existing vegetation. Watersheds on the Grassland would most likely not support extensive disturbance based on the current existing condition. The removal of all non-native plants and animals would be highly unlikely without a major funding investment. Because of the intermingled private lands, the risk to property and public safety would be too great if natural fire was allowed to manage the landscape over the long-term.

Alternative Y – Watershed Management

Alternative Y was dropped from consideration because management by watershed and riparian condition is embodied in Action Alternative F. Alternative F was primarily designed to respond to watershed condition, riparian properly functioning condition, and wildlife habitat improvement.

Alternatives

This section provides a narrative description, prescription tables, and prescription maps of each of the seven alternatives under consideration. Alternative A is the No Action Alternative required under the National Environmental Policy Act. Alternative B is the Proposed Action. Alternatives C through G are action alternatives to the Proposed Action based on the issues identified through the public scoping process.

Alternative A (No Action – Continue Current Plan)

Alternative A proposes to carry forward the direction of the current Forest Plan (1985). This alternative would promote the development of grassland agriculture and sustained-yield management of the forage, fish and wildlife, water, soil and recreation resources. "Grassland agriculture" is defined as practices that "maintain and improve soil and vegetation cover, and demonstrate sound and practical principles of land use for the areas in which they are located" (Bankhead-Jones Farm Tenant Act, 1937).

Riparian areas would be managed at minimum custodial levels required to comply with existing laws.

Direction for management of sage grouse habitat would include the following guidelines:

- No habitat manipulation within 1.9 miles of active sage grouse leks.
- No sagebrush control where sagebrush canopy cover is less than 20 percent or on steep slopes.
- No sagebrush control along streams, meadows or secondary drainages.
- Apply sagebrush treatments in irregular patterns.
- Avoid complete kill or removal of sagebrush.

This alternative would treat 18,750 acres of sagebrush over the next ten years using prescribed fire to improve diversity in sagebrush canopy cover classes and increase forage production for livestock grazing. The majority of sagebrush acres would be managed on a 20-year rotation of vegetation treatments to provide forage for permitted livestock. Treatments would be large

scale, generally up to 1,000 acres. Revegetation after treatment would occur through natural regeneration on the site. No seeding would occur. No direction would be provided for mountain brush management.

No specific direction would be included for the treatment of bulbous bluegrass in sagebrush understories. Revegetation after treatment to eliminate bulbous bluegrass would avoid establishing monocultures and would maintain a variety of desirable grass, forbs and shrub species for forage production for livestock. No preference would be given to revegetating with native or non-native plant species, but rather site-specific analysis would determine the feasibility and cost of both types of revegetation.

Economic outcomes are a result of managing to achieve the goals and objectives of the 1985 Forest Plan.

The Grassland would be open to motorized cross-country travel from December 1 to August 31. Motorized travel would be placed on designated routes from September 1 to November 30. During the snow season, the Grassland would be open to over the snow vehicles.

Approximately 1,006 acres would be considered “not suitable” for livestock grazing. These areas include the developed campgrounds, the Sweeten Pond area, and the tree row areas. Approximately 98 percent of the Grassland would be considered “suitable” for livestock grazing. Although no specific livestock grazing utilization levels are defined in the current Forest Plan, the majority of acres on the Grassland would be grazed at a 60 percent use level outlined in the allotment management plans for the Grassland. No riparian stubble height or riparian utilization levels would be defined in this alternative.

Table S.1 shows how management prescriptions would be applied on the Grassland in this alternative:

Table S.1. Alternative A - Acres in Each Management Prescription

Prescription	Acres	Percent of Grassland
3.2 Roaded Natural	10,525	22 %
6.1 Range	36,825	77 %
8.1.1 Concentrated Development Sites	175	<1 %
TOTAL	47,525	100 %

See Map in Chapter 2

Alternative B (Proposed Action from the Notice of Intent)

Under this alternative, a separate management plan for the Curlew National Grassland would be developed that addresses ecological patterns, processes, and management direction for both riparian and upland resources, including restoration of rangeland vegetation composition. This alternative proposes to implement livestock grazing utilization standards, develop soil and watershed management direction, improve direction for sagebrush/obligate wildlife species habitat, and develop policy for future utility proposals.

Of the alternatives proposed in the EIS, Alternative B, the Proposed Action, more nearly reflects actual management that has occurred on the Grassland over the past decade, while incorporating new standards and guidelines, including livestock utilization rates and riparian and wildlife improvements.

In this alternative, watersheds and riparian areas would be managed to maintain stability or accelerate recovery. This alternative would establish Riparian/Wetland emphasis areas (RWAs) for the maintenance of riparian and stream channel processes. Zone widths would be 75 feet for non-fish bearing reaches and 150 feet for fish bearing reaches. Range structural developments would be allowed provided they do not inhibit attainment of RWA goals. Riparian utilization levels would be 30 percent or a 6-inch stubble height, whichever is attained first.

Alternative B proposes to manage wildlife habitat by:

- Avoiding vegetation treatments within 0.25 miles of active sage grouse leks in habitats considered suitable for sage grouse nesting and brood-rearing.
- Constructing one additional pond in the Sweeten Pond area over the next ten years.
- Constructing ten additional miles of tree rows over the next ten years.

This alternative would treat a total of 5,850 acres. Approximately 2,000 acres of sagebrush in greater than 15 percent canopy cover would be treated with prescribed fire over the next ten years to improve diversity of sagebrush canopy cover while increasing forage production in the understory. Sagebrush would be managed for the majority of acres in 6-15 percent and greater than 15 percent canopy cover classes for wildlife habitat quality and long-term maintenance. Revegetation on treated sites would occur through natural regeneration. No seeding would occur. Approximately 150 acres of mountain brush would be treated using prescribed fire in this alternative.

An additional 3,700 acres (1,200 acres in 6-15 percent canopy cover, and 2,500 acres in greater than 15 percent canopy cover) of bulbous bluegrass sites would be prioritized for treatment using prescribed fire and plowing to improve understory diversity. Bulbous bluegrass sites would be revegetated using both non-native and native grass, forbs and shrub seed mixes. Treated sites would generally tend to be at least 500 acres or larger.

Economic outcomes in this alternative are the result of managing Grassland resources to achieve a clearly defined range of desired future conditions as outlined in Chapter 1 of this DEIS.

The Grassland would be open to motorized cross-country travel from December 1 to August 31. Motorized travel would be placed on designated routes from September 1 to November 30. During the snow season, the Grassland would be open to over the snow vehicles.

Approximately 1,125 acres would be considered “not suitable” for livestock grazing in this alternative. These areas include the developed campgrounds, the Sweeten Pond area, and the existing tree rows and the proposed tree row development proposed in this alternative.

Approximately 98 percent of the Grassland would be suitable for livestock grazing; however,

livestock forage utilization would be reduced from current levels. Upland forage utilization levels would be established at 45 percent for native vegetation and 50 percent non-native vegetation.

Table S.2 shows how management prescriptions would be applied on the Grassland in this alternative:

Table S.2. Alternative B - Acres in Each Management Prescription

Prescription	Acres	Percent of Grassland
2.8.4 Riparian/Wetland Areas	921	<1 %
3.3 Roaded Natural	11,123	23 %
3.4 Special Wildlife Areas	507	<1 %
4.1.1 Developed Recreation Sites	25	<1 %
6.2 Range	34,774	73 %
8.1.1 Concentrated Development Sites	174	<1 %
TOTAL	47,525	100 %

See map in Chapter 2

Alternative C

Under this alternative, a separate management plan for the Curlew National Grassland would be developed that would enhance sagebrush habitat for sagebrush obligate species. Vegetation treatments would be used to provide quality habitat and the quantity of habitat necessary to sustain life cycles and populations of these species. This alternative proposes to implement livestock grazing utilization standards, develop soil, watershed and riparian management direction, improve direction for sagebrush/obligate wildlife species habitat, and develop policy for future utility proposals.

Watersheds and riparian areas would be managed to maintain stability or accelerate recovery and to provide late summer sage grouse brood habitat. This alternative would establish Riparian/Wetland Areas (RWAs) using a 150-foot special emphasis zone for riparian and stream channel processes. Deep-rooted vegetation (sedges/willows) would be established on 3 miles of perennial stream over the next ten years. Improving trend would be emphasized on 10 percent of the non-functioning perennial stream reaches per year over the next ten years. New livestock facilities would be placed outside RWAs. Riparian utilization levels would be established at 20-50 percent or a 2-6-inch stubble height based on season of grazing, stream channel type, and current and desired riparian condition.

Alternative C proposes to manage wildlife habitat by:

- Managing vegetation treatments to improve the quality and quantity of suitable sage grouse habitats, as described in the most current version of Idaho State Sage Grouse Guidelines, within 5 kilometers (3.2 miles) of occupied sage grouse leks, except where bulbouse bluegrass is present.

- Protecting suitable sage grouse habitats within five kilometers (3.2 miles) from all occupied leks.
- Managing sagebrush for 15-25 percent canopy cover within 0.25 miles of agricultural lands where sagebrush canopy cover is less than 15 percent, except where bulbous bluegrass in sagebrush understories dominate the site and are prioritized for treatment.
- Constructing one additional pond in the Sweeten Pond area over the next ten years.
- Constructing ten additional miles of tree rows over the next ten years.

A total of 4,000 acres would be treated in this alternative. Vegetation treatments would take into account the vegetative condition of adjacent land ownerships and sage grouse needs. Approximately 2,500 acres of sagebrush in greater than 25 percent canopy cover would be treated using herbicides over the next ten years to attain 15-25 percent canopy cover to maintain sagebrush for sage grouse. The majority of sagebrush acres would be managed for sagebrush canopy cover in greater than 15 percent to enhance sage grouse nesting and brood-rearing habitat. Revegetation would occur through natural regeneration. No seeding would occur on these acres. No mountain brush treatment is proposed in this alternative.

Approximately 1,500 acres of bulbous bluegrass in less than 15 percent canopy cover would be treated by brush beating/plowing and prescribed fire over the next ten years to improve understory diversity for sage grouse. Vegetation treatments would be prioritized based on sage grouse biological needs, including pre-nesting, nesting and brood-rearing habitat. Bulbous bluegrass in sagebrush understories would be treated and revegetated using a native only grass, forbs and shrub seed mix. Treated sites would generally tend to be smaller in size than in other alternatives, generally less than 500 acres.

Economic outcomes are a result of managing Grassland resources for upland game bird habitat and other sagebrush/obligate species while providing for some livestock grazing.

Motorized travel would be restricted in this alternative to designated routes year-round. During the snow season, the Grassland would be open to over-the-snow vehicles.

Approximately 1,125 acres would be considered “not suitable” for livestock grazing in this alternative. These areas include the developed campgrounds, the Sweeten Pond area, and the existing tree rows and the proposed tree row development proposed in this alternative. The remaining acres (98%) on the Grassland would be suitable for livestock grazing in this alternative; however, livestock forage utilization would be reduced from current levels to provide vegetation cover for nesting grouse and to aid in riparian area recovery. Upland livestock utilization levels would be established at 30-40 percent, or a residual vegetation height of 7 inches, whichever occurs first regardless of whether the vegetation is native or non-native.

This alternative proposes a *standard* that would establish a ¼ mile buffer when adjacent land is under agricultural crop production or where sagebrush canopy cover is less than 15 percent. Tree rows would be included in the ¼ mile buffer where they exist. A special riparian

prescription would be applied to streams where headwaters are located on private, state, or other federal land outside the jurisdiction of the Forest Service.

Table S.3 shows how management prescriptions would be applied on the Grassland in this alternative:

Table S.3. Alternative C - Acres in Each Management Prescription

Prescription	Acres	Percent of Grassland
2.8.5 Riparian/Wetland Areas	921	<1%
3.4 Special Wildlife Areas	507	<1 %
3.5 Upland Bird Habitat	45,897	96 %
4.1.1 Developed Recreation Sites	25	<1 %
8.1.1 Concentrated Development Sites	175	<1 %
TOTAL	47,525	100 %

See map in Chapter 2

Alternative D

Under this alternative, a separate management plan for the Curlew National Grassland would be developed that focuses on maintaining the Grassland as a reference reserve. Ecological patterns and processes would be allowed to evolve under natural conditions over time. No vegetation treatments would be proposed, and no livestock grazing would be permitted

In this alternative, watersheds and riparian areas are left to evolve under natural processes and as influenced by the upper portions of the watershed in other ownerships, except to maintain viable populations of wildlife species, if necessary.

Alternative D proposes to manage wildlife habitat by implementing vegetation treatments only when necessary to improve habitats to maintain minimum viable populations of wildlife species. Vegetation treatments are only implemented when necessary to improve habitats to maintain minimum viable populations of wildlife species. Prescribed fire is the primary management tool used to achieve improvements of habitats to maintain minimum viable populations of wildlife species. The majority of sagebrush acres are left to evolve under natural processes (with the exception of wildfire suppression). Sagebrush acres are managed to trend successional to late seral structure and composition. No long-term goals for treatment of sagebrush canopy cover are set in this alternative. No treatment of mountain brush is proposed in this alternative.

Economics are an outcome of managing Grassland resources as a natural ecosystem with little or no intervention or human-induced management activities.

Motorized travel would be restricted in this alternative to designated routes year-round. During the snow season, the Grassland would be open to over-the-snow vehicles.

Approximately 47,525 acres would be considered “not suitable” for livestock grazing in this alternative. No grazing would occur. Livestock forage utilization would not be necessary in this alternative, since no livestock grazing would occur.

Table S.4 shows how management prescriptions would be applied on the Grassland in this alternative:

Table S.4. Alternative D - Acres in Each Management Prescription

Prescription	Acres	Percent of Grassland
3.6 Ecological Processes Custodial	47,318	98 %
4.1.1 Developed Recreation Sites	32	<1 %
8.1.1 Concentrated Development Sites	175	<1 %
TOTAL	47,525	100 %

See Map in Chapter 2

Alternative E

Under this alternative, a separate management plan for the Curlew National Grassland would be developed that addresses economic and social outcomes and meets legal requirements for soil, air and water. Vegetation management would be used aggressively to enhance the capability of the Grassland to produce forage, mainly for livestock grazing.

Watersheds and riparian areas would be managed to maintain stability and to provide forage production for livestock grazing and wildlife. In this alternative riparian/wetland areas would be managed using the green line (that vegetation directly adjacent to the stream channel) as a special emphasis zone for riparian and stream channel processes. Improving trend would be emphasized on 10 percent of the non-functioning perennial stream reaches per year over the next ten years. New livestock facilities would be placed outside RWAs. Riparian utilization levels would be established at 50 percent or a greater than 3-inch stubble height at the end of the grazing season on riparian *Carex* (sedge) species.

Alternative E would manage wildlife habitat by avoiding vegetation treatments within 0.25 miles of active sage grouse leks in habitats considered suitable for sage grouse nesting and brood-rearing habitat, except where bulbous bluegrass in sagebrush understories dominate the site and are prioritized for treatment.

A total of 17,200 acres would be treated in this alternative. Approximately 7,500 acres outside of bulbous bluegrass sites that have sagebrush with canopy cover greater than 15 percent would be treated using prescribed fire to attain 0-5 percent sagebrush canopy cover over the next ten years to improve forage production for livestock. An additional 7,000 acres outside of bulbous bluegrass sites that have sagebrush with canopy cover greater than 15 percent would be treated using herbicides to attain 0-5 percent canopy cover over the next ten years to improve sagebrush canopy cover diversity and increase forage production for livestock. The majority of sagebrush acres are managed for sagebrush canopy cover in less than 5 percent canopy cover to enhance/maintain grass and forbs production for livestock grazing. Revegetation on these acres would occur through natural regeneration. No seeding would occur. About 200 acres of mountain brush over the next ten years using prescribed fire to attain early seral structure and composition.

Approximately 2,500 acres of bulbous bluegrass (2200 acres in greater than 15 percent canopy cover and 300 acres in less than 15 percent canopy cover) are proposed for treatment over the

next ten years using prescribed fire, plowing, and herbicide applications to increase forage production for livestock grazing. Revegetation on bulbous bluegrass sites would be accomplished with non-native and native species emphasizing forage production. Treated sites would generally tend to be at least 500 acres or larger.

Economics outcomes are the result of managing Grassland resources for economic and social benefits while meeting applicable laws and regulations.

The Grassland would be open to motorized cross-country travel from December 1 to August 31. Motorized travel would be placed on designated routes from September 1 to November 30. During the snow season, the Grassland would be open to over the snow vehicles.

Approximately 1,006 acres would be considered “not suitable” for livestock grazing. These areas include the developed campgrounds, the Sweeten Pond area, and the tree row areas. The remaining acres (98%) of the Grassland would be suitable for livestock grazing. When forage production approaches 800 pounds per acre on non-native vegetation sites, these sites would be prioritized for treatment. Upland forage utilization levels would be established at 50-60 percent for both native and non-native vegetation.

This alternative proposes a **guideline** that would establish a 500-foot buffer when adjacent land is under agricultural crop production or where sagebrush canopy cover is less than 15 percent. Tree rows would be included as part of the 500-foot buffer where they exist. A special riparian prescription would be applied to streams where headwaters are located on private, state, or other federal land outside the jurisdiction of the Forest Service.

Table S.5 shows how management prescriptions would be applied on the Grassland in this alternative:

Table S.5. Alternative E- Acres in Each Management Prescription

Prescription	Acres	Percent of Grassland
2.8.6 Riparian/Wetland Areas	60	<1%
3.4 Special Wildlife Areas	507	<1 %
4.1.1 Developed Recreation Sites	32	<1 %
6.3 Range Management	46,751	98 %
8.1.1 Concentrated Development Sites	175	<1 %
TOTAL	47,525	100 %

See map in Chapter 2

Alternative F

Under this alternative, a separate management plan for the Curlew National Grassland would be developed that addresses ecological patterns, processes, and management direction for both riparian and upland resources, including restoration of rangeland vegetation composition. This alternative proposes to implement livestock grazing utilization standards, develop soil and watershed management direction, improve direction for sagebrush/obligate wildlife species habitat, and develop policy for future utility proposals.

Watersheds and riparian areas would be managed to maintain stability or accelerate recovery. This alternative proposes to manage riparian/wetland areas using a 150-foot special emphasis zone for riparian and stream channel processes. Deep-rooted (sedges/willows) vegetation would be established on 3 miles of perennial stream by 2010. Improving trend would be emphasized on 10 percent of the non-functioning perennial stream reaches per year over the next ten years. New livestock facilities would be placed outside RWAs. Riparian utilization levels would be established at 20-50 percent or a 2-6-inch stubble height, based on season of use, stream channel type, existing versus the desired riparian condition.

Alternative F would manage wildlife habitat by avoiding vegetation treatments within 0.25 miles of active sage grouse leks in habitats considered suitable for sage grouse nesting and brood-rearing habitat, except where bulbous bluegrass in sagebrush understories dominate the site and are prioritized for treatment. Approximately 2,700 acres of sage grouse habitat would be treated using prescribed fire.

Alternative F proposes to treat 12,300 acres of sagebrush over the next ten years. Approximately 9,600 acres outside of bulbous bluegrass sites that have canopy cover in greater than 15 percent would be treated using herbicides only to attain 6-15 percent canopy over the next ten years to improve sagebrush canopy cover diversity. The majority of sagebrush is managed for 6-15 percent and greater than 15 percent canopy cover to provide balance in sagebrush canopy diversity. Revegetation on these acres after treatment would occur through natural regeneration. No seeding would occur. Approximately 200 acres of mountain brush would be treated in this alternative using prescribed fire as the primary management tool to achieve a mix of age and structural classes.

This alternative proposes to treat 2,500 acres of bulbous bluegrass in the sagebrush understory (2,200 acres in the greater than 15 percent sagebrush canopy cover and 300 acres in the less than 15 percent sagebrush canopy cover) to improve understory diversity. Treatments would include prescribed fire and plowing. Only native grasses, forbs and shrub seed mix would be used for revegetation on treated bulbous bluegrass sites. Treated sites would generally tend to be at least 500 acres or larger.

Economics in this alternative are an outcome of managing Grassland resources for properly functioning condition.

Motorized travel would be restricted in this alternative to designated routes year-round. During the snow season, the Grassland would be open to over-the-snow vehicles.

Approximately 1,125 acres would be considered “not suitable” for livestock grazing. These areas include the developed campgrounds, the Sweeten Pond area, and the tree row areas. The remaining portion (98%) of the Curlew Grassland would be suitable for livestock grazing; however, livestock forage utilization would be reduced from current levels. Upland forage utilization levels would be established at 40-50 percent for both native vegetation and non-native vegetation.

This alternative proposes a **guideline** that would establish a ¼ mile buffer when adjacent land is under agricultural crop production or where sagebrush canopy cover is less than 15 percent.

Tree rows would be included as part of the ¼ mile buffer where they exist. A special riparian prescription would be applied to streams where headwaters are located on private, state, or other federal land outside the jurisdiction of the Forest Service.

Table S.6 shows how management prescriptions would be applied on the Grassland in this alternative:

Table S.6. Alternative F - Acres in Each Management Prescription

Prescription	Acres	Percent of Grassland
2.8.5 Riparian/Wetland Areas	921	<1%
3.4 Special Wildlife Areas	507	<1 %
4.1.1 Developed Recreation Sites	25	<1 %
6.4 Range Management	45,897	96 %
8.1.1 Concentrated Development Sites	175	<1 %
TOTAL	47,525	100 %

See map in Chapter 2

Alternative G (Preferred Alternative in Draft EIS)

Under this alternative, a separate management plan for the Curlew National Grassland would be developed that addresses ecological patterns, processes, and management direction for both riparian and upland resources, including restoration of rangeland vegetation composition weighted more toward heavier sagebrush canopy cover during the first ten-year planning period. This alternative proposes to implement livestock grazing utilization standards, fence all perennial riparian areas, develop soil and watershed management direction, improve direction for sagebrush/obligate wildlife species habitat, and develop policy for future utility proposals.

In this alternative, where riparian areas are not currently in riparian pastures, all perennial riparian areas would be fenced to exclude livestock grazing (75 feet from middle of the stream on each side of non fish-bearing streams and 150 feet from the middle of the stream on each side of fish-bearing streams,) except water gaps for cattle access. Riparian fencing would occur first before any other treatments were initiated. It is the greater need and first priority in this alternative. Water gaps would be placed no closer than .5 mile and would be no greater than 50 feet of stream length. Gaps would be hardened as specified by a hydrologist. Occasional grazing would be permitted in fenced riparian enclosures once every five years to maintain plant vigor.

Riparian pasture and enclosure grazing utilization would retain 6 inches of vegetation height, or no more than 30 percent utilization on the greenline, whichever is attained first, at the end of the grazing season on riparian *Carex* species. Fifty percent of woody species would be retained. Bank disturbance would not exceed 40 percent total (both banks), or 20 percent annually (both banks).

Alternative G proposes to manage wildlife habitat by:

- Managing vegetation treatments to improve the quality and quantity of suitable sage grouse habitats, as described in the most current version of Idaho State Sage Grouse Guidelines,

within 5 kilometers (3.2 miles) of occupied sage grouse leks, except where bulbouse bluegrass is present.

- Constructing one additional pond in the Sweeten Pond area over the next ten years.

Approximately 2,500 acres of sage grouse habitat would be treated with prescribed fire over the next ten years to improve understory diversity.

This alternative would treat 5,000 acres of sagebrush in greater than 15 percent canopy cover over the next ten years. Approximately 2,500 acres in greater than 15 percent canopy cover would be treated outside of bulbous bluegrass areas using a light herbicide treatment to attain a 6-15 percent sagebrush canopy cover to provide for more balance between sagebrush canopy cover while allowing livestock grazing to continue. Sagebrush would be managed for the majority of acres in 6-15 percent and greater than 15 percent canopy cover classes. Revegetation on treated sites would occur through natural regeneration. No seeding would occur. Approximately 2,500 sagebrush acres in greater than 15 percent canopy cover with bulbous bluegrass in the understory would be prioritized for treatment using prescribed fire and plowing to improve understory diversity. Treated sites would be revegetated using both non-native and native grass, forbs and shrub seed mixes. Treated sites would generally be at least 500 acres or larger.

Economic outcomes in this alternative are the result of managing Grassland resources to protect riparian areas and to achieve a balance between livestock grazing and quality and quantity of wildlife habitat needed to sustain wildlife.

Motorized travel would be restricted in this alternative to designated routes year-round. During the snow season, the Grassland would be open to over-the-snow vehicles.

Approximately 1,006 acres would be considered “not suitable” for livestock grazing in this alternative. These areas are developed campgrounds, the Sweeten Pond area, and the existing tree rows. The remaining acres (98%) of the Grassland would be suitable for livestock grazing; however, livestock forage utilization would be reduced from current levels. Upland forage utilization levels would be established at 40-50 percent for both native and non-native vegetation.

This alternative proposes a *standard* that would establish a ¼ mile buffer when adjacent land is under agricultural crop production or where sagebrush canopy cover is less than 15 percent. Tree rows would be included in the ¼ mile buffer where they exist. A special riparian prescription would be applied to streams where headwaters are located on private, state, or other federal land outside the jurisdiction of the Forest Service.

Table S.7 shows how management prescriptions would be applied on the Grassland in this alternative:

Table S.7. Alternative G - Acres in Each Management Prescription

Prescription	Acres	Percent of Grassland
2.8.7 Riparian/Wetland Areas	4,850	11%
3.4 Special Wildlife Areas	507	<1%
3.7 Upland Bird Habitat/Range	41,961	88%
4.1.1 Developed Recreation Sites	32	<1%
8.1.1 Concentrated Development Areas	175	<1 %
TOTAL	47,525	100 %

See map in Chapter 2

ALTERNATIVE H –Selected Alternative in the Record of Decision

Introduction to the Alternative

In response to public comments on the Draft Environmental Impact Statement and Draft Grassland Plan, Alternative H was developed to manage the resources using a combination of features primarily from Alternative F and Alternative G. It features an emphasis on adaptive management and monitoring to resolve uncertainties regarding management of the Grassland resources. An adaptive management strategy offers an avenue to describe and evaluate the consequences of changing conditions and knowledge. Monitoring and additional analysis are used to chart the course for future management actions within the framework of the Grassland Plan.

In Alternative H, management would focus on treatments necessary to maintain the current acreage of mature sagebrush (greater than 15 percent canopy coverage) at the end of the decade with priority for vegetation treatment focused in areas where sagebrush canopy cover is greater than 25 percent, while increasing the amount in the 6-15 percent canopy cover class to improve habitat for sage grouse nesting and brood rearing. Treatments reflect management actions that will move upland vegetation toward properly functioning conditions including the desired canopy cover and understory vegetation composition. With new information, technology and monitoring results, treatment methods and/or locations may change. These changes would be evaluated when individual treatments are proposed in specific locations on the Grassland.

Management would also emphasize improving conditions on streams that are “at risk” or “non-functioning” and maintaining those that are in properly functioning condition. Treatments and management standards also would improve wildlife habitat and understory vegetation diversity.

Livestock grazing would be managed to a level consistent with the desired resource conditions. The alternative is designed to respond to public comments and address the issues of sagebrush overstory and understory composition, economic changes as a result of decreased forage production and related livestock carrying capacity, wildlife habitat, riparian condition and watershed condition.

Under this alternative, the Curlew National Grassland Plan would emphasize maintenance of the existing sagebrush canopy cover classes with improvement in understory diversity, particularly in areas dominated by bulbous bluegrass. Management direction for both riparian and upland resources would include maintenance and improvement of rangeland vegetation composition, condition, and production levels. This alternative would:

- Allow adaptive livestock grazing utilization levels based on site conditions and needs
- Develop soil and watershed management direction
- Improve direction for sagebrush obligate wildlife species habitat
- Develop policy for future utility corridor proposals
- Move the Grasslands towards properly functioning conditions, both in riparian and upland ecosystems

Specific Management Strategies

Watersheds and riparian areas would be managed to maintain stability or accelerate the present rate of recovery. This alternative would manage riparian/wetland areas (RWAs) using a 150-foot special emphasis zone on fish bearing streams and a 75-foot buffer on non-fish bearing streams. An estimated five miles of perennial streams that are considered functioning, but “at risk,” would be corridor fenced to increase the rate of achieving full properly functioning condition (PFC). Water gaps would be located in appropriate locations to allow livestock access and would be hardened. Corridor stream enclosures could be grazed periodically for short durations to maintain streamside plant vigor. The Grassland-wide standards and guidelines for livestock utilization would apply to these areas unless specific objectives have been established. Additional water developments may be necessary to improve livestock distribution.

Perennial streams that are not currently fenced into riparian pastures (approximately nine miles) would be fenced into riparian pastures using existing pasture boundary fence realignments, where feasible. Riparian utilization levels in riparian pastures would be established at 20-50 percent or a 2-6-inch stubble height, based on season of use, stream channel type, existing versus the desired riparian condition, and PFC status of stream.

Alternative H would manage wildlife habitat by maintaining a .25-mile (1/4 mile) buffer around active sage grouse leks during sagebrush treatments. Restoration treatments would be prioritized in areas where sagebrush canopy cover exceeds 25 percent and are not considered good habitat for nesting and brood rearing or winter habitat. No new tree rows would be planted in this alternative.

Alternative H proposes to treat a total of 12,100 acres of vegetation over the next ten years. Since the emphasis is on canopy cover outcomes, acres disturbed by wildfire events would be deducted from the total acres proposed for treatment.

Approximately 9,600 acres outside of bulbous bluegrass sites that have sagebrush canopy cover greater than 15 percent would be proposed for treatment. Priority would be given to areas on the Grassland where sagebrush canopy cover is greater than 25 percent. Treatment methods would be used to move these areas back to the 16-24 percent and the 6-15 percent cover class.. Given current options, the analysis in this alternative is based on thinning the sagebrush using herbicides or mechanical methods to maintain the existing sagebrush canopy cover over the next ten years. The focus of treatments would be to improve sagebrush canopy cover diversity and

increase understory conditions in both species diversity and forage production. Prescribed fire or other methods could be used if they will achieve the desired resource objectives. The methods and locations would be analyzed at the site-specific level.

The majority of sagebrush acres are managed for 6-15 percent and greater than 15 percent canopy cover to provide balance in sagebrush canopy diversity and move towards properly functioning conditions. Generally, revegetation would occur through natural regeneration unless site conditions after treatment would warrant reseeding to restore understory vegetation or provide watershed protection.

In addition, this alternative proposes to treat 2,500 acres of bulbous bluegrass in the sagebrush understory (2,200 acres in the greater than 15 percent sagebrush canopy cover and 300 acres in the less than 15 percent sagebrush canopy cover) to improve understory diversity. Treatments would include prescribed fire, plowing and reseeding or other methods, such as ground or aerial herbicide applications, if available and appropriate. A mix of native and/or desired non-native grasses, forbs and shrub seed mix would be used for revegetation on treated bulbous bluegrass sites. Treated sites would vary in size, from a few acres up to and including entire fields, depending on vegetation objectives, method or type of thinning treatment used, and economic viability.

Economics in this alternative are an outcome of managing Grassland resources to maintain current sagebrush canopy cover and maintain or improve riparian conditions.

Motorized travel would be restricted in this alternative to designated routes year-round. During the snow season, the Grassland would be open to over-the-snow vehicles.

Approximately 1,006 acres would be considered “not suitable” for livestock grazing where fencing will continue to be used to exclude livestock grazing. These areas include the developed campgrounds, the Sweeten Pond area, and the tree row areas.

Approximately 98 percent of the Curlew National Grassland would be “suitable” for livestock grazing; however, livestock forage utilization standards would be reduced from current allowable use which is an average of 60 percent. Average percent utilization of upland herbaceous vegetation across the Grassland would be 50 percent by dry weight each year. This alternative may require more intensive livestock management to achieve desired resource goals, objectives, standards and guidelines. Allowable use levels in individual pastures, however, would be determined in the Allotment Planning Process and Annual Operating meetings. The Grassland Plan would include guidance allowing for heavier use levels on some sites, such as crested wheatgrass areas, where this higher use is needed periodically to maintain overall plant vigor. Use levels may be lower in areas important to nesting sage grouse to maintain adequate residual vegetation for hiding cover and/or native understory sites. These levels would be determined using an interdisciplinary, adaptive management process.

This alternative proposes a **guideline** that includes consideration of adjacent land use during site-specific project analysis and maintenance of wildlife buffers where needed..

Table S.8 shows how management prescriptions would be applied on the Grassland in this alternative:

Table S.8. Alternative H – Acres in Each Management Prescription

Prescription	Acres	Percent of Grassland
2.8.8 Riparian/Wetland Areas	921	<1%
3.4.1 Special Wildlife Areas	507	<1%
4.1.2 Developed Recreation Sites	25	<1%
6.5 Rangeland Vegetation/ Upland Game Bird Habitat Management	45,987	96%
8.1.2 Concentrated Development Sites	175	<1%
TOTAL	47,525	100%

See map in Chapter 2

Conformance with the Forest and Rangeland Renewable Resources Planning Act (RPA)

The NFMA regulations at 36 CFR 219.12(f)(6) require at least one alternative be developed that responds to and incorporates the Resources Planning Act (RPA) Program’s tentative resource objectives for each national forest/grassland as displayed in regional guides. However, the 1990 RPA Program establishes national guidance for the national forests/grasslands by providing program emphasis and trend rather than specific, quantified output targets for individual Forest Service programs. As a result, no resource objectives were quantified for each region to display in regional guides, which would then be passed on to individual forests/grasslands.

The RPA is updated every five years and has three components: (1) roles in natural resource management for Forest Service management; (2) Forest Service program responses to contemporary issues; and (3) long-term strategies to guide the program development and budget process. It emphasizes four high priority themes: (1) recreation, wildlife and fisheries resource enhancement; (2) environmentally acceptable commodity production, (3) improved scientific knowledge about natural resources; and (4) response to global resource issues. This guidance was used in developing action alternatives for this DEIS.

Table S.10 displays the Summary Results of the Environmental Effects of each alternative.

IDENTIFICATION OF THE ENVIRONMENTALLY PREFERRED ALTERNATIVE(S)

Regulations implementing the National Environmental Policy Act (NEPA) require agencies to specify the alternative(s) considered to be environmentally preferable (40 CFR 1505.2(b)). Forest Service policy further defines this as the alternative that best meets the goals of section 101 of NEPA.

Alternatives *D* and *H*—*Selected Alternative* are the Environmentally Preferred Alternatives. Over the long term, Alternative H would cause “the least damage to the biological and physical environment” (CEQ 40 Most Asked Questions, #6A). Over the short term, Alternative D would cause the least damage due to the removal of livestock grazing. See the Record of Decision for additional rationale and Chapter 2 of the EIS.

IDENTIFICATION OF THE SELECTED ALTERNATIVE

Alternative H has been identified as the **Selected Alternative** in the Record of Decision

How Alternative H Addresses the Forest Service Natural Resource Agenda

● **Watershed Health and Restoration**

Alternative H proposes to establish specific riparian special emphasis zones with specific riparian and upland livestock grazing utilization levels; corridor fence all streams assessed to be “at risk” from properly functioning condition (approximately five miles) with water gaps for livestock access; fence all remaining riparian areas into riparian pastures where they are not currently fenced into riparian pastures (approximately 9 miles) and allow grazing in riparian pastures based on stream PFC status; establish upland livestock utilization rates at 50 percent with annual monitoring of key areas and livestock utilization mapping; emphasize soil restoration and encourage collaboration with adjacent landowners for watershed conservation, erosion and runoff control.

● **Sustainable Grassland Ecosystem Management**

Alternative H addresses ecological patterns and processes for riparian and upland resources; moves vegetation through management treatments toward a properly functioning condition; emphasizes restoration of rangeland vegetation composition, particularly understory diversity on 2,500 acres of bulbous bluegrass; uses prioritized vegetation treatments in areas where sagebrush canopy cover is greater than 25 percent to improve the quality of suitable sage grouse habitat.

● **Roads**

Alternative H proposes to place motorized recreation users on designated routes year-round while providing open cross-country travel to over-the-snow vehicles. An extensive public road system is already in place. A Roads Analysis for the Curlew National Grassland was completed as part of this planning process. The Roads Analysis identifies potential opportunities for improvements in the transportation system on the Grassland. These opportunities will be addressed through site-specific project implementation. (See Curlew National Grassland Roads Analysis Report in the Project File for list.)

● **Recreation**

Alternative H proposes to sustain or improve key recreational opportunities of hunting and wildlife viewing.

How Alternative H Addresses the Government Performance Results Act (GPRA)

● Goal 1. Ecosystem Health

Alternative H proposes reduced livestock utilization levels to improve watershed condition; proposes to fence riparian areas assessed to be “at risk” from properly functioning condition to accelerate the rate of recovery toward properly functioning condition; fences all other perennial waters into riparian pastures with more focused livestock management based on the stream’s PFC status; emphasizes sage grouse habitat to insure viable populations in Curlew Valley; vegetation treatments move sagebrush communities toward PFC; improves vegetation understory diversity by treating 2,500 acres of bulbous bluegrass; encourages consultation with permittees, recreationists, private landowners, and the local Sage Grouse Working Group to provide multiple sustainable benefits to people.

● Goal 2. Multiple Benefits to People

Alternative H proposes to sustain or improve key recreational opportunities for hunting and wildlife viewing; maintains and improves Sweeten Pond special wildlife area; improves understory diversity to increase forage and improve wildlife habitat; continues livestock grazing at or near current authorized use levels. Actual adjustments in the level of grazing will be made in the Allotment Management Plan process.

● Goal 3. Scientific and Technical Assistance

Alternative H is adaptive and proposes modest changes in levels of use as rural Oneida County continues to diversify economically under the County Economic Development Action Plan; proposes monitoring to enhance scientific understanding of how ecosystems respond to management; identifies research and inventory needs that will potentially involve research by the Forest Service, other State and Federal agencies, and colleges and universities.

● Goal 4. Effective Public Service

Alternative H proposes projects, that when scheduled, will generally be within the financial capability of the unit; proposes to limit motorized travel to designated routes, eliminating proliferation of non-system motorized roads and trails; emphasizes cooperation with adjacent landowners.

How Alternative H addresses the Range of Desired Future Conditions identified in the Initial Analysis of the Management Situation (See Chapter 1, page 1-6)

Soil

Alternative H incorporates soil quality standards and provides management direction to improve erosion and runoff control in cooperation with adjacent landowners.

Terrestrial Ecosystems:

Alternative H moves sagebrush canopy cover toward a more properly functioning condition while maintaining important sagebrush habitat (16-24 percent canopy cover) for sage grouse. While Alternative H allows prescribed fire in the treatment of bulbous bluegrass areas, treatment methods outside of these areas focus on thinning sagebrush canopy cover using light and heavy herbicide applications in areas where sagebrush canopy cover is greater than 25 percent. It includes adaptive management and focused monitoring to improve scientific knowledge about how sage grouse and other sagebrush obligate species use Grassland habitats. Alternative H improves understory diversity on 2,500 acres where bulbous bluegrass is dominant in the understory using a mix of native and non-native seed mixes. It establishes grazing utilization standards that provide adaptability to meet wildlife habitat needs while allowing livestock grazing to continue. Alternative H incorporates updated direction and identification for utility corridors.

Aquatic Ecosystems

Alternative H establishes special Riparian/Wetland Areas, including management direction to corridor fence perennial streams that have been assessed as “at risk” from properly functioning condition in order to accelerate the rate of recovery of these streams. It includes fencing all other perennial streams into riparian pastures, in areas not already fenced into riparian pastures, using existing pasture boundary fences where feasible. Alternative H establishes adaptable grazing utilization standards based on each stream’s PFC status. It incorporates focused annual monitoring on key species and includes annual livestock utilization mapping.

Table S.9. Comparison of Alternative Components

Alternative Components	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	Alternative H
Riparian Management								
Livestock Utilization	~60%	30% or 6 inches	20-50% or 2-6 inches	No grazing	50% or 3 inches on green line	20-50% or 2-6 inches	30% or 6 inches	20-50% or 2-6 inches
RWA widths	None	75 ft. non-fish 150 ft. fish	75 ft. non-fish 150 ft. fish	None	Green line	75 ft. non-fish 150 ft. fish	75 ft. non-fish 150 ft. fish	75 ft. non-fish 150 ft. fish
Miles of streamside improvements	None	None	3 miles	None	None	3 miles	None	None
Other	Existing Riparian Pastures	Existing Riparian Pastures	None	None	None	None	Existing riparian pastures. All other perennial streams fenced to RWA widths	Corridor fence "at risk streams. Fenced all others into riparian pastures.
Wildlife Management								
Lek buffer zone	1.9 miles	.25 miles	3.2 miles	None	.25 miles	.25 miles	3.2 miles	.25 miles
Wetland improvements	None	One pond	One pond	None	None	None	One pond	None
New tree rows	None	10 miles	10 miles	None	None	None	None	None
Desired Future Conditions for Sagebrush								
Acres in 0-5% cc	34%	10-30%	Less than 25%	Trend to late	Greater than 50%	10%	10%	17%
Acres in 6-15% cc	33%	40-60%	Less than 25%	Seral stage	Less than 25%	40%	35%	24%
Acres in greater than 15% cc	33%	30-50%	Greater than 50%		Less than 25%	50%	55%	59%
Vegetation Management								
Prescribed Fire outside of Bulbous bluegrass areas	18,750 acres	2,000 acres	None	None	7,500	None	None	Limited to None to achieve sagebrush canopy cover goals only
Revegetation Method	Natural Regen	Natural Regen			Natural Regen			
Fire/Plow/Reseed on Bulbous bluegrass areas	None determined	3,700 acres	1,500 acres	None	2,500 acres	2,500 acres	2,500 acres	2,500 acres
Revegetation method		Native/ Non-native	Native only		Native/ Non-native	Native only	Native/Non-native	Native/Non-native
Herbicide	None determined	None	2,500 acres Light Herbicide	None	7,000 acres Heavy Herbicide	9,600 acres Light Herbicide	2,500 acres Light Herbicide	9,600 acres Light to heavy
Treatment size	Greater than 500 acres	Greater than 500 acres	Less than 500 acres	None	Greater than 500 acres	Greater than 500 acres	Greater than 500 acres	None identified
Mountain Brush	None treated	150 acres Rx fire	None treated	None	200 acres Rx fire	200 acres Rx fire	None Treated	None
Travel Management	Open from 12/1-8/31	Open from 12/1-8/1	Designated routes Year-round	Designated routes Year-round	Open from 12/1-8/1	Designated routes Year-round	Designated routes Year-round	Designated routes Year-round
Acres not grazed	1,006	1,125	1,125	47,600	1,006	1,006	1,006	1,006
Livestock upland utilization levels	~60%	45% native 50% non-native	30-40% or 7 inches	No grazing	50-60%	40-50%	40-50%	50%
Intermingled lands buffer zones	None	None	¼ mile (S)	None	500 feet (G)	¼ mile (G)	¼ mile (S)	¼ mile (G)

Table S.10. Summary of Effects By Alternative

Issues/Indicators	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G	ALT H
Watershed Condition								
Max acres disturbed at one time	7,400	2,500	750	0	1,350	1,350	1,250	1,250
% of CNG disturbed at one time	15%	6%	1%	0%	3%	3%	3%	3%
Potential Erosion Over Natural in tons per year	10,360	3,500	1,050	Natural	1,890	1,890	1,750	1,750
Riparian Condition								
Miles trending toward PFC ¹	10 miles in Riparian pastures moderately improved	14 miles moderately improved	24 miles substantially improved	24 miles greatly improved	24 miles slightly improved	24 miles substantially improved	14 miles in exclosures greatly improved	5 miles in exclosures greatly improved
	14 miles outside of Rip pastures no change						10 miles in riparian pastures moderately improved	19 miles in riparian pastures moderately improved
Rate of Recovery	Rip pastures good Other areas static	Better than Alt A	Better than Alt B	Better than Alts C&F	Slightly better Than Alt A	Better than Alt B	Better than All except Alt D	Better than Alt B
Ranking 1-7 with 1 being best	(6)	(4)	(3)	(1)	(5)	(3)	(2)	(3)
Sagebrush Canopy Cover								
Grassland								
% of acres in 0-5% cc – Year 10	29%	15%	7%	6%	26%	9%	10%	9%
% of acres in 6-15% cc – Year 10	25%	17%	14%	15%	23%	31%	19%	31%
% of acres in >15% cc – Year 10	46%	68%	79%	79%	51%	60%	71%	60%
Greater Curlew Valley Area								
% of acres in Grass/Ag – Year 10	50%	50%	50%	50%	50%	50%	50%	50%
% of acres <10% cc – Year 10	29%	25%	23%	20%	28%	24%	22%	24%
% of acres in 11-25% cc – Year 10	14%	16%	18%	18%	15%	18%	18%	18%
% of acres in >25% cc – Year 10	7%	9%	9%	12%	7%	8%	10%	8%
Meets PFC in 10 yrs (CNG)	No	No	No	No	No	No	No	No
Meets LT goal in 10 yrs (CNG)	No	No	Yes	None Set	No	No	No	No
PFC Magnitude of departure (CNG)	Mod to High	Low to Mod	Mod to High	Mod to High	High	Low	Low to Mod	Low
Mountain Brush								
% of acres in early seral	0%	11%	0%	0%	15%	15%	0%	0%
% of acres in late seral	100%	89%	100%	100%	85%	85%	100%	100%

Issues/Indicators	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G	ALT H
Trending toward PFC	No	Yes	No	No	Yes	Yes	No	No
PFC Magnitude of departure	High Disturbance Moderate Succession	Moderate Disturbance Moderate Succession	High Disturbance Moderate Succession	High Disturbance Moderate Succession	Moderate Disturbance Moderate Succession	Moderate Disturbance Moderate Succession	High Disturbance Moderate Succession	Moderate Disturbance Moderate Succession
Vegetation Understory								
Acres of Pobu treated	0	3,700	1,500	0	2,500	2,500	2,500	2,500
Acres of Pobu remaining	5,200	1,500	3,700	5,200	2,700	2,700	2,700	2,700
Percent of natives in seed mix	0%	100%	100%	0%	50%	100%	50%	50%
Wildlife Habitat								
Number of 320-acre patches in greater 15% cc in Year 10	7 patches	12 patches	19 patches	19 patches	0 patches	3 patches	12 patches	6 patches
Percent of sagebrush acres in potential sage grouse nesting habitat (16-24% cc) in Year 10	18%	24%	26%	26%	19%	24%	24%	37%
Meets, Partially Meets, or Does Not Meet Draft 2000 Sage Grouse Plan	Does not meet	Partially meets	Best meets	Partially meets	Does not meet	Partially meets	Meets	Partially meets
Number of acres in greater than 15% cc treated with Rx fire	18,750	4,500	None	None	9,700	2,200	2,500	2,200
Miles of tree rows in Year 10	21	31	31	21	21	21	21	21
Riparian Viability Ranking of Alternatives With 1 being best and 7 being worst	7	5	3	1	6	3	2	3
Economics								
Percent change in jobs (Oneida)	19%	5%	-22%	-81%	-6%	-2%	-6%	5%
Percent change in income (Oneida)	23%	6%	-24%	-86%	15%	6%	-3%	13%
Total Payments to Oneida County	\$204,918	\$204,037	\$203,274	\$202,160	\$104,574	\$204,102	\$203,670	\$204,240
Present Net Value	14.422	14.110	13.192	11.713	13.324	12.783	13.372	13.229
Total Projected Annual Grazing Program Cost including treatments	\$226,875	\$215,715	\$203,100	\$165,000	\$242,250	\$249,800	\$232,000	\$249,300
Total Projected Annual Grazing Program Value (Fair Market Value)	\$148,771	\$127,826	\$86,702	\$0	\$121,710	\$111,255	\$107,383	\$123,425
Livestock Grazing								
Acres managed without livestock	1,006	1,125	1,125	47,600	1,006	1,125	1,125	1,125
Estimated Forage - Year 0	38.4M ²	38.4M	38.4M	39.2M	38.4M	38.4M	38.4M	38.4M
Potential Head Months - Year 0	19,600-27,900	15,800-22,500	11,400-16,200	0	18,000-25,600	14,600-20,800	14,100-20,100	16,246-23,124
Estimated Forage - Year 10	44.3M	35.3M	30.7M	31.2M	42.3M	36.6M	33.6M	36.6M
Potential Head Months - Year 10	21,700-31,500	15,000-25,400	9,900-13,200	0	19,200-27,900	14,200-19,200	13,000-18,200	15,725-21,850

Issues/Indicators	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G	ALT H
Intermingled								
Size of buffers	None	None	.25 miles (S) ³	None	500-ft (G)	.25 miles (G)	.25 miles (S)	.25 miles (G)
Air Quality								
Annual Average Acres burned	1,875	585	150	0	1,020	270	250	250
PM ₁₀ /Tons released	104.4	36.6	8.3	0	56.8	15.0	13.9	13.9

1 Actual improvement rate depends on the condition of the riparian area and the channel and continuing disturbances to the channel/riparian area. The terms slightly, moderately, substantially and greatly reflect the level of livestock use by alternative. Slightly means the level of livestock use is high and only a slight amount of overall riparian/channel improvements will be realized. Greatly means livestock use is minimal and improvements will occur as rapidly as natural progression will allow.

2 Shown in millions of pounds per year

3 S=Standard and G=Guideline

