

Implementation, Monitoring, and Evaluation

This Chapter generally outlines the implementation schedule and monitoring requirements for the Forest Plan. We have displayed the implementation as the objectives to be met.

This Part provides programmatic direction for monitoring and evaluating management plan implementation as required by NFMA (36 CFR 219.11 inter alia). Monitoring provides the Forest Supervisor with the information necessary to determine whether the Revised Forest Plan is sufficient to guide management of the Caribou NF for the subsequent year or whether modification of the plan is needed.

Implementation Strategy

The implementation of this Grassland Plan is displayed in this table of objectives and timeline for meeting those objectives. This schedule will be used to help design the program of work for each resource group. It will also be used to assist budget allocations each year.

Table 5.1 Objectives in the Grassland Plan

Objective	Annually	Year									
		1	2	3	4	5	6	7	8	9	10
GENERAL ECOLOGICAL CONDITIONS											
1. Within 10 years after signing the ROD, reassess vegetation PFC of ecosystems on the Grassland and adjacent areas, to determine if resources are moving toward DFCs.											■
WATER QUALITY											
1. Proactively address all impaired waterbodies within 5 years subject to funding and State schedules.						■					
FISHERIES, WATER, WATERSHED AND RIPARIAN RESOURCES											
1. Establish an upward trend on all perennial riparian systems within the next decade.											■
VEGETATION											
1. Treat 12,100 acres of sagebrush over the next 10 years.											■

WILDLIFE											
1. Sagebrush Habitats: Assess the changes to sagebrush habitats in the Greater Curlew Valley, including canopy cover, adjacent land use, understory conditions, every five years. Coordinate with interested groups.						■					■
1. Grouse: Build a blind for lek observation.					■						
2. Grouse: Develop a map in cooperation with IDFG to identify functional and degraded breeding habitat within 2 years of the signing of the ROD.			■								
1. Riparian Habitats: Map stream reaches and identify existing and potential willow shrub communities within 2 years of signing the ROD.			■								
HERITAGE RESOURCES											
1. Inventory 100 to 500 acres of the Grassland each year to locate and identify archaeological and historic properties.	■										
2. Within 5 years of signing the ROD, develop a predictive model to guide the design and completion of cultural resource inventories.						■					
LIVESTOCK MANAGEMENT											
1. Within 3 years of signing the ROD, AMPs will be updated for the Curlew Valley and Buist Association fields.				■							
2. Within 2 years of signing the ROD, develop a monitoring protocol for livestock use monitoring and recording on the Grassland, following the C-T Rangeland Monitoring Protocol and FS Handbook direction.			■								
← Rx 2.8.8 RIPARIAN/WETLAND AREAS											
1. For riparian improvement, by 2008 corridor fence those streams that are “at risk” and will benefit from that fencing.								■			
2. On the remaining perennial streams, outside of existing riparian pastures and corridor fenced “at risk” streams, fence into riparian pastures using existing boundary fences by 2010.										■	
🏠 Rx 3.4.1 SPECIAL WILDLIFE AREAS											
1. Maintain existing fences annually to meet wildlife habitat goals.	■										
2. Maintain water in Sweeten Pond each year, by pumping when needed.	■										
🐾 Rx 6.5 RANGELAND VEGETATION AND UPLAND BIRD HABITAT MANAGEMENT											
1. Within 10 years of the ROD, treat 2,500 acres of bulbous bluegrass and reseed with native and non-native grass, forb, and shrub seed mixtures.											■
2. Within 10 years of the ROD, treat 9,600 acres of sagebrush with herbicides or other appropriate methods to reduce canopy cover from >25% canopy cover and to achieve other resource objectives.											■

Monitoring Strategy

Monitoring and evaluation are conducted at several scales and for many purposes, each of which has different objectives and requirements. Monitoring requirements and tasks are developed to be responsive to the objectives and scale of the plan, program, or project to be monitored. They determine how well objectives have been met and how closely management standards and guidelines have been applied. Monitoring generally includes the collection of data and information, either by observation or measurement. Evaluation is the analysis of the data and information collected during the monitoring phase. The evaluation results form a basis for adaptively managing the Grassland.

The following Monitoring Plan identifies the key items specific to the Curlew. The activities in Table 5.2 are have been identified by both Forest Service employees and the public. Forest Service research and other federal and state agencies may be involved with developing protocols for monitoring.

Monitoring Activities

The monitoring activities presented have been developed to assess progress toward Desired Future Conditions and respond to Grassland Plan goals and objectives (Table 5.1); to provide focus for data collection and analysis; and to be compatible with Caribou RFP monitoring. Table 5.2 represents management plan monitoring activities that address priority management emphasis, goals and objectives. This portion of monitoring and evaluation activities will vary each year in response to changing issues, budgets, science and methodologies. It is anticipated that the depth of analysis for any of the monitoring program may also vary from year to year.

All monitoring assumes that the full range of management activities follows management area, geographic area, and grassland direction; laws and management policy; and acceptable resource-protection standards and guidelines. Deviations from this assumption will be identified through the monitoring process. **The monitoring program outlined here is the optimal level, assuming the plan is fully funded.** It is unlikely that annual budgets will fully fund the monitoring effort shown here. Priorities for the annual monitoring effort will be based on budgets and program direction. In order to maximize efficiency and promote cooperation, the Forest will seek to develop monitoring partnerships with federal and state agencies and other entities as appropriate, to further shared goals and carry out agency responsibilities.

Evaluation

Each year the monitoring results will be compiled and analyzed to determine if the Forest is following the Plan and if the activities prescribed by the Plan are moving the Grassland toward the Desired Future Conditions. With adaptive management, this evaluation is critical to the success of the program. If the monitoring shows that activities are not moving Grassland

conditions towards goals and DFC's , then management strategies can be adjusted. Continual re-evaluation of conditions is designed to insure that management of the Grassland will achieve the goals for the next decade.

A comprehensive Monitoring and Evaluation Report will be completed and published every five years. Annually we will gather and compile data for inclusion in the State-of-the-Grassland Report. The Report summarizes the monitoring and evaluation, and contains recommendations to the Forest Supervisor. Based on the report and other relevant information, the Forest Supervisor certifies the Plan as sufficient for management over the subsequent year or that the plan needs to be amended.

Table 5.2 Curlew Grassland Plan Monitoring Plan

Resource	Parameter Monitored	Monitoring Activity	Type of Monitoring	Frequency of Measurement	Precision Reliability	Priority	Responsibility
Soils	Detrimental Soil Disturbance	Evaluate according to R-4 Soil Quality Standards. Apply Grassland-wide on representative sites of various land treatments.	Implementation Effectiveness	Annually	A	2	Forest Soil Scientist
	Ground Cover	Grassland-wide on representative sites or habitat types where new land treatments occur. Evaluate the rate at which habitat types recover from hydrologic disturbances. Include measurements of fine organic matter to address long-term soil productivity.	Implementation Effectiveness	Annually	A	2	Forest Soil Scientist
	Soil Heating	Evaluate fire intensity to determine impacts on soil quality. Measure area extent of severely burned soils.	Implementation	After each fire event.	B	2	Forest Soil Scientist
Vegetation	Big Sagebrush and Mountain Brush Canopy Cover	Reevaluate sagebrush canopy cover classes using a Landsat analysis similar to the USU and Prevedel studies or a more site-specific inventory method. Approved methods in the FSH 2209.11 will be used.	Implementation Effectiveness	Every 10 years	A	1	District Rangeland Managers
	Changes in shrub and understory diversity in bulbous bluegrass treatments.	Establish a monitoring plan in consultation with the Regional Ecologist, using control plots to determine vegetation trends. Protocol will include methods that will show the changes in understory and overstory vegetation and canopy cover reestablishment.	Implementation Effectiveness Validation	Bulbous bluegrass treatments would be measured at times prescribed by Regional Ecologist	A	1	District Rangeland Managers

Resource	Parameter Monitored	Monitoring Activity	Type of Monitoring	Frequency of Measurement	Precision Reliability	Priority	Responsibility
	Changes in shrub and understory diversity from other vegetation treatments.	Protocol will include methods that will show the changes in understory and overstory vegetation and canopy cover reestablishment and other shrub parameters. Include evaluation of sage grouse habitat quality.	Effectiveness Validation	Before treatment and in years 3 and 10 after treatment.	A	1	District Rangeland Manager and Wildlife Biologist
	Long-term vegetation benchmarks	Establish at least one nested frequency transect within representative native vegetation in the NW unit to monitor long-term condition and trend.	Effectiveness	Every 10 years	A	1	District Rangeland Manager
	Vegetation Changes	Document and map natural and man caused disturbances.	Implementation	Annually	A	1	District Rangeland Manager
Water and Riparian	Riparian Properly Functioning Condition	Reassess streams for PFC using the BLM/FS Protocol and the Integrated Riparian Evaluation Guide or other established protocols. Compare recovery rates between annually and periodically grazed pastures.	Effectiveness Validation	Every 5 years	B	2	District Rangeland Managers
	Water Quality	Monitor water quality on water quality limited streams.	Effectiveness Validation	Annually	A	1	Forest Hydrologist
Wildlife— Management Indicator Species	Sage Grouse and Columbian Sharp-tailed grouse	Each spring conduct sage and sharp -tailed grouse lek surveys in cooperation with BLM, IDFG and other interested parties on known active and inactive leks.	Validation	Annually	B	1	District Biologist
	Riparian Breeding Birds	Monitor riparian breeding bird habitat keying in on willow shrub structure. Methods may also include long-term point counts for birds.	Effectiveness	Every 5 years	A	1	Forest Wildlife Biologist

Resource	Parameter Monitored	Monitoring Activity	Type of Monitoring	Frequency of Measurement	Precision Reliability	Priority	Responsibility
Livestock Grazing	Livestock Utilization	Monitor grazing utilization/stubble height parameters; protocol to be established in consultation with IDT and Regional Ecologist. Protocol will include (at a minimum) yearly utilization mapping and upland and riparian key area utilization transects.	Implementation Effectiveness	Annually—use mapping on 100% of CNG; transects/cages in at least 25% of pastures	A	1	District Rangeland Manager
Recreation and Access	Developed Site Conditions	Review fee records and other methods to determine use levels and site conditions.	Implementation Effectiveness Validation	Annually	A	1	District Recreation Specialist
	Dispersed Area Use and Condition	Use observations, road and trail counters to monitor resource conditions and use levels at dispersed recreation sites.	Effectiveness	Annually	B	1	District Recreation Specialist
	Travel and Recreational Activity Impacts	Use observations and surveys to assess resource conditions in areas of concern such as high use areas or along travel routes.	Implementation Effectiveness	Annually	B	2	District Recreation Specialist

