

Decision Notice & Finding of No Significant Impact Woodruff and Dairy Ridge Cattle Allotments

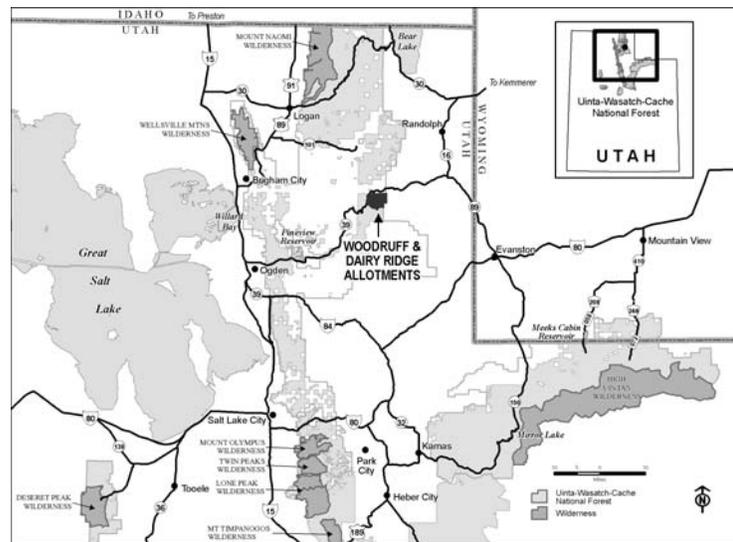
USDA Forest Service

Ogden Ranger District, Uinta-Wasatch-Cache National Forest
Cache, Rich and Weber Counties, Utah

Introduction

This document details my decision regarding the authorization of grazing on the Woodruff and Dairy Ridge Cattle Allotments, herein referred to as the Woodruff Dairy Ridge Allotments. My decision is based on an environmental analysis for the proposed grazing which is documented in an Environmental Assessment (EA) and released concurrent with this decision. The Woodruff Dairy Ridge Allotments are located in Rich County approximately 30 miles northeast of Ogden, Utah (see Figure 1). Lands within these allotments are managed by the Ogden Ranger District of the Uinta-Wasatch-Cache National Forest. The allotments include approximately 7,470 permitted acres.

Figure 1 Woodruff-Dairy Ridge Allotments Vicinity Map



Background and History

The Ogden Ranger District has authorized livestock grazing on the Woodruff Dairy Ridge Allotments for several decades via term grazing permit(s). The Woodruff Allotment has two pastures, an upper and lower, which have been managed as a cattle allotment for several decades. The Dairy Ridge Allotment was managed as a sheep allotment until about 1988, when fences were built and the type of permitted livestock use was changed to cattle. The Woodruff Allotment is currently permitted for 554 cow-calf pairs. Dairy Ridge is currently permitted for 100 cow-calf pairs.

Grazing is authorized on these two cattle allotments under existing permits and is managed per their respective Allotment Management Plans (AMPs). Each year, specific direction is provided in the Annual Operating Instructions (AOIs) for the allotments. Reauthorization of livestock grazing would require reviewing and updating existing AMPs as necessary. Currently, a total of 654 cow-calf pairs are permitted on the Woodruff Dairy Ridge Allotments (Table 1).

Table 1: Summary of current cattle grazing on the Woodruff and Dairy Ridge allotments.

Allotment	NFS Acres ¹	Livestock Number-Class	Period of Use	Grazing System
Dairy Ridge	1,985	100 cow-calf pairs	July 1 st - September 15 th	Deferred rotation, managed together with Woodruff allotment as three pastures between the two allotments
Woodruff	5,630	554 cow-calf pairs	July 1 st - September 15 th	Deferred rotation, managed together with Dairy Ridge allotment as three pastures between the two allotments

¹ From Wasatch Cache Corporate GIS layer. Acres are approximate and are not exact.

In the following sections, this document outlines my decision regarding authorization of grazing on the Woodruff Dairy Ridge Allotments, summarizes the rationale for my decision, lists mitigation measures that will be applied, and includes alternatives that were considered in the environmental analysis. In addition, this Decision Notice summarizes:

- the public involvement effort;
- why significant environmental impacts do not occur;
- how the decision is consistent with applicable laws, regulations, and policies; and
- information about the administrative review (appeal) process.

Decision

After a thorough review of the environmental analysis, I have decided to implement Alternative 2, the proposed action, as described in the Woodruff Dairy Ridge Allotments EA. My decision authorizes grazing in a manner designed to maintain resource values where they are meeting desired conditions, to improve unacceptable resource conditions where they exist on some upland and riparian areas within the allotments, and to adapt to new information as it becomes available through monitoring of resource conditions. Regarding the latter, my decision implements an adaptive management and monitoring strategy. My decision assumes

proper and appropriate permit administration will continue to meet the 2003 Wasatch-Cache National Forest Revised Forest Plan (“Forest Plan”) desired conditions.

My conclusions are based on the scientific analysis in the EA and the supporting project record. The project record demonstrates a thorough review of relevant scientific information, a consideration of responsible opposing views based on public scoping, and the acknowledgement of incomplete or unavailable information. The analysis identifies the techniques and methodologies used to incorporate current scientific thought, including the references to scientific resources relied upon. My decision is consistent with Forest Service policy as described in Forest Service Handbook 2209.13, Chapter 90, section 92.21 Decision Framework.

Details of the Decision, including Mitigation and Monitoring

The Woodruff Dairy Ridge Allotments decision incorporates sound grazing principles the Forest Service has used for decades to improve and maintain rangeland conditions. Management thresholds for the specific grazing strategy, season of use, intensity and frequency are described below. Specific details for implementing this decision will be defined in the Allotment Management Plan (AMP) and Annual Operating Instructions (AOI).

Monitoring and inventory data suggest there are areas of resource concern within the Woodruff Dairy Ridge Allotments. Field studies conducted in 2008 and 2009 indicate range vegetative conditions on portions of the allotments are not meeting desired conditions prescribed in the *2003 Revised Forest Plan, Wasatch-Cache National Forest* (Forest Plan). The following specific concerns are addressed with this decision:

- Bare soil conditions exist in many aspen areas in excess of Forest Plan standards and guidelines.
- Some aspen communities lack desired plant species diversity, having an abundance of undesirable forbs (such as cone flower) and a lack of grasses.
- Fish habitat conditions are not meeting Forest Plan desired conditions in the Silvia Hollow drainage.

The Forest Plan and Forest Service policy is supportive of sustainable grazing use on National Forest System lands. To meet the Forest Plan there is a need for a change in management of grazing use on the Woodruff and Dairy Ridge Allotments. This decision addresses these concerns by implementing appropriate Forest Plan utilization standards within aspen ecosystem types, installing additional fence and water trough structures, and using a monitoring and adaptive management feedback process to make future adjustments as needed to meet Forest Plan standards, guidelines, and desired conditions.

Grazing Strategy

Livestock grazing will be managed using a grazing management system. Initially a deferred rotation grazing strategy will be used on the Woodruff Dairy Ridge Allotments. Grazing on about two-thirds of the allotment would be deferred annually until after seed ripe, as determined in the corresponding Allotment Management Plan (AMP) and reflected in the

Annual Operating Instructions (AOI). If necessary and as determined through monitoring, other adaptive management strategies could be used.

Grazing Season

The specific grazing season would vary from year to year, but would generally fall between July 1st and September 15th. Turn out would not occur before *range readiness*—that point in the plant growth cycle at which grazing may begin without permanent damage to vegetation or soil. The grazing season would generally end before the start of the rifle deer and elk hunting season. Annual adjustments are authorized by the District Ranger in the Annual Operating Instructions (AOI's).

Intensity

Grazing intensity (utilization) will be administered according to grazing utilization standards and guidelines described in the Forest Plan (USFS 2003, p. 4-51 to 4-52, and included in Appendix A of this decision). Utilization levels and desired resource conditions (e.g., rangeland vegetation condition and trend) are specified and monitored to ensure plant vigor and productivity are maintained and/or improved. If livestock use is consistently within forage utilization levels, and soil, water quality, and vegetation conditions and trends are acceptable, then stocking is considered to be within capacity. If livestock use results in having to consistently accelerate scheduled rotations through the allotment or requires livestock to be removed early, it is considered to indicate that stocking is outside of capacity, and a need for change in the grazing capacity is appropriate. These types of adjustments would be made using the adaptive management strategy as described below.

Grazing intensity is regulated by utilization standards and not solely by the number or duration of livestock grazing. Forage utilization monitoring is used to determine whether stocking is within capacity or whether adjustments are necessary. Forage utilization monitoring is also the basis upon which determinations of whether adjustments in management or stocking rates are made.

Annual forage utilization is measured by averaging the use of key species in key areas based on the measurement of typically 50 to 100 individual plants. Key areas are defined as “a relatively small portion of rangeland which because of its location, grazing or browsing value and/or use, serves as a monitoring and evaluation site” (FSH 2209.21). The proposed action identifies the following “key areas” (at a minimum) to be monitored for annual utilization and long-term trend. Note that key areas and monitoring protocols can be changed or substituted without additional site specific NEPA.

Key Area Name¹ - Monitoring type (ecosystem type)

- 1) Silvia Hollow – MIM² (riparian)
- 2) Peggy Hollow – MIM² (riparian)
- 3) Peggy Hollow Bench - utilization (upland)
- 4) Red Rock Springs - utilization (ponds/seeps)
- 5) Wheeler Creek below Ranger Hollow - stubble height (ponds/seeps)
- 6) Swan Spring - utilization (ponds/seeps)
- 7) 1 of 18 permanent aspen plots rotated annually - utilization (upland)
- 8) 1 of the permanent sagebrush plots rotated annually - utilization (upland)

¹ Note: Key monitoring areas may be changed if necessary without additional NEPA documentation.

² Multiple Indicator Monitoring. Burton, Tim, Steven Smith and Ervin Cowley. 2008. Monitoring Stream Channels for Riparian Vegetation – Multiple Indicators. Version 5.0

Frequency

The frequency of grazing any certain area will be one time per season. Cattle would not be allowed to re-graze either upland or riparian sites where utilization had already been met. This means that livestock would be managed to ensure that grazing of re-growth of native species during the same grazing season does not occur.

Site-Specific Desired Future Conditions

Desired conditions for the management areas applicable to the Woodruff and Dairy Ridge cattle allotments are found in the Forest Plan, Bear Management Area (pages 4-119 through 4-127). In accordance with direction in the Forest Plan (see Forest Plan Appendix X-5), the interdisciplinary team (ID Team) has reviewed and in some cases refined or supplemented the Forest Plan prescribed Desired Future Conditions (DFC) to be more specific to the project area and the proposed action. The refinements/supplements are consistent with Forest Plan direction. Appendix B of this decision contains project specific DFC for the Woodruff Dairy Ridge Allotments.

Mitigation, Management and Other Requirements

My decision includes mitigation measures and management requirements designed to prevent or diminish adverse effects of management actions on the human environment. These actions will diminish resource impacts and maintain healthy rangeland and riparian conditions, water quality, productive soils, plants and wildlife habitat. The mitigation and management requirements discussed in the EA are included in my decision. These are listed in Appendix A.

Of particular note is the change in utilization standards within the aspen communities. Vegetation condition inventories conducted during analysis of the Woodruff and Dairy Ridge Environmental Assessment found bare soil conditions in excess of Forest Plan guidelines. Additionally, some aspen communities lacked desired plant species diversity, having an abundance of undesirable forbs (such as cone flower) and a lack of grasses. As these areas are not in satisfactory conditions (i.e., groundcover exceeds Forest Plan guidelines and understory species diversity is less than Forest Plan guidelines), the grazing utilization in aspen communities within the Woodruff and Dairy Ridge allotments will be reduced to 35%. This is to encourage rehabilitation of these areas as described in Forest Plan guideline G71 (see Appendix A, Table A2).

Using the adaptive management and monitoring approach (see below), if in the future aspen communities are shown to be in satisfactory condition, then the grazing utilization standard would increase to the level permitted in the Forest Plan. This could occur without a future NEPA decision.

Part of the proposed action is reconstruction of a drift fence near the southern boundary of the Dairy Ridge allotment. The purpose of this fence is to reduce cattle impacts to fisheries and riparian habitat in the Silvia Hollow drainage and to discourage trespass into adjacent sheep allotments. This design feature will help direct riparian vegetation, stream channel, and aquatic conditions in the riparian area toward the desired future condition.

This drift fence will be constructed on approximately the lowest mile of Middle Ridge, near the southern boundary of the Dairy Ridge allotment. The location is along a previously used fence alignment which will allow for improved control of cattle and appropriate maintenance of the fence. The fence will also reduce cattle and sheep trespass between neighboring Little Monte and Bountiful sheep allotments to the south.

While my decision approves the construction of the Silvia Hollow drift fence, it does not require complete rest from grazing within the Silvia Hollow riparian area. Future flexibility will allow that area to be either grazed or rested depending upon results from the monitoring data. That decision will be made annually and documented in the Annual Operating Instructions.

Lastly, this decision includes extending the Ranger Hollow water system. This water line extension will add three additional water trough sites. Cattle watering locations lost by construction of the Silvia Hollow drift fence will be partly offset by construction of these three additional watering troughs in the Wheeler Creek drainage (below Ranger Hollow).

Adaptive Management

My decision for the Woodruff Dairy Ridge Allotments employs an adaptive management strategy. This strategy allows for the adjustment of the timing, intensity, frequency and management of grazing on the allotment as needed to meet Forest Plan standards and guidelines, and continue to meet or satisfactorily move forest resources toward desired conditions. Monitoring is the basis for determining the need and frequency for administrative adjustments in the timing, intensity, frequency, and/or management of grazing. My decision sets the following adaptive management principles and limits to allow for maintenance and improvement of range conditions on upland and riparian sites on the Woodruff Dairy Ridge Allotments.

Adaptive Management Strategies¹:

- Use of salt or supplement to draw livestock toward or away from specific areas.
- Change season of use.
- Change animal numbers.
- Change animal class.
- Change number of days of livestock utilization.
- Rest from livestock grazing for one or more seasons.
- Construct fence² to create riparian unit and allow livestock grazing under riparian grazing guidelines.
- Construct fence² to exclude livestock from areas of concern (riparian, streams, springs, wetlands, mesic meadows, etc.).
- Construct temporary electric fence or permanent fence² to control livestock distribution patterns.

- Construct livestock water development² (pipeline, tanks, windmill, sediment traps, well, stock dam, submersible pumps, solar).
- Remove existing water development (pipeline, tanks, windmill, well, stock dam).
- Remove existing fence line (electric, standard, permanent or temporary).
- Implement multi-pasture, deferred livestock grazing system.
- Implement a high-intensity/short duration livestock grazing system (by riding, herding, temporary fence, etc.).
- Implement rest-rotation livestock grazing system.

¹ The potential management actions are designed to be used either alone or in combination to best meet, or at least, move toward the desired resource condition within a timeframe of ten years.

² Other than those listed in the design criteria, permanent fences and stock tank installations would not be constructed without additional NEPA analysis.

Monitoring

Monitoring is a critical element of this decision and implementation of an adaptive management strategy. Monitoring activities are discussed in the EA and included in my decision as described in Appendix C.

Decision Rationale

In making the decision to authorize grazing on the Woodruff Dairy Ridge Allotments, I have reviewed the existing environmental conditions and the direct, indirect, and cumulative effects for all the actions included in each of the alternatives. I have also considered comments received from the public. I gave careful consideration to how well each alternative met the 1) purpose and need, 2) responded to the issues, and 3) addressed public comments, as follows.

1) Purpose and Need

Reviews of data collected on the Woodruff Dairy Ridge Allotments (2008-2009) indicate many areas within the Woodruff Dairy Ridge Allotments are in satisfactory condition and moving towards desired conditions. Satisfactory rangeland condition, as defined in the Revised Forest Plan (page GL-17) exists “when the desired rangeland condition is being met, or short-term objectives are being achieved to move rangeland toward desired conditions; either meeting or moving toward desired conditions.” Unsatisfactory rangeland conditions exist when the above is not being met.

Field data also suggests current grazing management is not meeting or moving towards desired conditions in some resource areas. Soil disturbance and vegetation composition within aspen communities are not in satisfactory condition and therefore does not meet Forest Plan standards and guidelines. As the purpose of this decision is comply with the Wasatch-Cache Revised Forest Plan, there is a need for change between the existing condition and desired condition in the Woodruff Dairy Ridge Allotments.

Additionally, riparian areas in the Silvia Hollow area do not meet desired conditions for aquatic resources. It is my determination that better control of cattle grazing is necessary to improve the habitat for Bonneville Cutthroat Trout in the Silvia Hollow drainage. This will be met by installing a drift fence as described in the Proposed Action. This fence will control but not necessarily eliminate cattle grazing in the Silvia Hollow area. Future monitoring results will be used to identify appropriate grazing strategies, including rest from grazing, as needed to meet Forest Plan desired conditions.

My decision (Alternative 2 – Proposed Action) addresses the stated purpose and need by maintaining and improving resource conditions on the Woodruff Dairy Ridge Allotments through implementation of an adaptive management strategy. Coupled with monitoring, adaptive management will allow for informed decisions on the appropriate timing, intensity, frequency, and/or management of grazing. This combines future management flexibility with specific desired outcomes as required by the Forest Plan.

I did not select Alternative 1 (No Grazing) which would eliminate livestock grazing from Woodruff Dairy Ridge Allotments. Livestock grazing is an appropriate and permitted use within active allotments and there is no compelling data supports closure of these allotments. I believe the mitigation and management requirements listed in this decision will purposefully move the Woodruff Dairy Ridge Allotments towards desired conditions as outlined in the Forest Plan.

2) Response to Issues

Based on comments received during scoping, the Forest Service Interdisciplinary Team developed the list of issues for the proposed project. The issues were then used in development of alternatives, to prescribe mitigation measures, and in the analysis of environmental effects. In making my decision I considered how well each of the alternatives address and resolve the issues. The issues raised during scoping included the following:

- Cattle grazing in uplands can cause ineffective ground cover resulting in accelerated soil erosion and degradation of soil quality. However, grazing can help to reduce fine fuels and create new vigor in decadent shrubs and grasses.
- Cattle grazing can cause changes in plant composition and plant community structure, potentially affecting threatened, endangered, or Forest Service sensitive species.
- Cattle grazing and trampling in riparian areas can reduce vegetative cover, decrease bank stability, and increase sedimentation which can cause changes in channel morphology, decrease water quality, and alter fish habitat. However, stock ponds and other livestock water improvements can provide valuable aquatic habitat and water for wildlife.
- Cattle grazing can decrease cover and forage used by a variety of wildlife species. Potentially affected species include USFWS-listed Threatened, Endangered, Proposed and Candidate species; Forest Service Sensitive species; Wasatch-Cache National Forest Management Indicator Species (MIS), migratory birds, and general species of local concern.

3) Response to Public Concerns

In reviewing the comments received during the notice and comment period, I believe my decision addresses the concerns raised by the public. The response to comments is available in the EA, Chapter 4. The primary concerns involved the following subject areas:

Grazing effects to vegetation – a few comments were made suggesting grazing is leading to negative impacts to aspen communities. While the EA and this decision does address site specific grazing impacts to aspen communities, it is also recognized in the Forest Plan that information and analysis regarding aspen communities is best addressed at the landscape scale. The analysis of this grazing decision is at the project level which is related to but different for evaluation of aspen ecosystems. See section 2.4.2.1, Table 2.4.2.1 of the EA for additional information.

Grazing effects to wildlife species – comments were received suggesting that the Forest Service should analyze the effects of livestock grazing on Management Indicator Species (MIS), threatened, endangered and sensitive (TES) species such as Canada lynx, and should comply with the Migratory Bird Treaty Act (MBTA).

The direct, indirect and cumulative effects of the no action and proposed action alternatives to wildlife species were identified in the wildlife specialist report, which is summarized in section 3.7 of the EA. The analysis of proposed project included review and study of environmental consequences for Management Indicator Species, Threatened and Endangered, Forest Service Sensitive, Species at Risk, Migratory Bird Treaty Act, and Big Game species. Similarly, aquatic species are addressed in the Aquatics Technical Report (see section 3.2 of the EA) and plant species in the Botany Report (see also section 1.9.1 of the EA).

Grazing Management Considerations – A few comments were received regarding cattle management, such as monitoring locations, fence maintenance, and cattle distribution. While this decision does have implications for cattle management by setting sideboards and constraints, most of the specific details of implementing this decision are addressed in the Allotment Management Plan (AMP) and Annual Operating Instructions (AOI). The Forest Service works closely with the permittee to meet the intent of this decision and the Forest Plan. For example, monitoring locations were chosen by the Interdisciplinary Team in areas representative of the allotment as a whole. However, additional study locations may be added if needed and cooperative monitoring by the permittee or other interested members of the public is encouraged by the Forest Service. Note however that a monitoring agreement should be in place before cooperative monitoring begins.

Grazing effects to water resources – one commenter was noting potential negative consequences of livestock grazing to stream channel conditions and water sources. I feel the effects to water quality and quantity, including stream and wetland health, were adequately analyzed in the EA (see EA sections 3.2 and 3.6). Additionally, a drift fence to be constructed along Middle Ridge will provide increased control of cattle grazing in the Silvia Hollow area, a stream used by Bonneville cutthroat trout, a Forest Service sensitive species. Finally, the Forest Plan designated grazing utilization standards for riparian areas that will be

implemented as part of this decision. See EA, Table 2.5a for specific standards and guidelines for grazing in riparian areas.

Alternatives Studied in Detail

In addition to the proposed action, the EA analyzed the no action (no grazing) alternative and the current management alternative, as described below.

No Action (No Grazing)

The “no action” alternative is included to meet requirements of the National Environmental Policy Act [40 CFR 1502.14 (d)] and the Grazing Permit Administration Handbook, FSH 2209.13, Chapter 90, Section 92.31 which stipulates that “in addition to the proposed action, the no action alternative shall always be fully developed and analyzed in detail.” “No action” is synonymous with “no grazing” and means that livestock grazing would not be authorized within the project area.

Under this alternative, livestock would no longer be permitted to graze on the Woodruff Dairy Ridge Allotments. If this alternative were selected, grazing would not be authorized after a two-year notification to the permittees from the date the decision is made. Non-permitted recreational horse use would still occur.

Proposed Action (Current Management with changes)

The proposed action would manage the two allotments together as three pastures (two in Woodruff and one in Dairy Ridge) with two of the three pastures deferred each year on a rotational basis. Deferred rotation refers to the practice of keeping livestock out of a pasture until later in the grazing season, usually until after key plants are seed-ripe, allowing for regeneration of vegetation. The allotments have been managed this way under a trial basis for the past two years.

The proposed action addresses aspen communities and certain riparian areas currently in unsatisfactory condition. Specific measures, including implementing lower utilization standards per Forest Plan standards, reconstruction of a drift fence, and additional water development were designed to address these concerns. Furthermore, to improve areas of unsatisfactory condition or downward trend, the proposed action would employ an adaptive management strategy (Section 2.4.2). Adaptive management allows for changes in management within defined limits as needed to meet Forest Plan standards and guidelines and desired future conditions. Monitoring of key areas would determine the need and frequency for administrative adjustments in the timing, intensity, frequency, and/or management of grazing.

Alternatives Considered and Eliminated from Detailed Analysis

The following alternatives were considered but eliminated from detailed study as recommended by the Interdisciplinary Team with concurrence from the Responsible Official. They were eliminated from detailed study because they do not meet the purpose and need or

because of other considerations as disclosed below. A brief discussion of the reasons for their having been eliminated is given.

Current Management

The Woodruff and the Dairy Ridge Allotments were managed as two separate allotments prior to the 2-year trial period initiated in 2006. The Woodruff Allotment has two pastures (upper and lower) and was managed on a deferred grazing system. The Dairy Ridge Allotment consists of one pasture grazed season long. The Current Management alternative would continue grazing management as two separate allotments. The permitted number of livestock and grazing season would be as has been authorized for the past few years. The authorized grazing use on Woodruff is for 554 cow-calf pairs with a grazing season from July 1 to September 15. The authorized use on Dairy Ridge is for 100 cow-calf pairs from July 1 to September 15.

This alternative (grazing management of 2 separate allotments, prior to the 2-year trial period) was eliminated from detailed study because it does not meet the purpose and need. Resource conditions on the allotment (see EA Section 1.3, Purpose and Need) indicate a need for some type of change in management of grazing use on the Woodruff Dairy Ridge Allotments to bring about improved vegetation conditions in uplands and riparian areas.

Public Involvement

The Ogden District Ranger mailed a scoping/notice and comment document with cover letter on May 8, 2009 to individuals and organizations on the District mailing list. This document with corrected cover letter was again mailed out August 25, 2009 due to a clerical error in mailing. The original and corrected scoping letter was posted on the Wasatch-Cache National Forest website. In addition, the project was first posted in the June 2009 quarterly Schedule of Proposed Actions (SOPA).

The District received one response to the initial scoping and notice and comment letter and three additional comments to the second opportunity to comment. A complete listing of the individual comments and categories is available in the project record.

The public was given notice and an opportunity to comment on the proposed action beginning on May 8, 2009 and again on August 28, 2009 when a legal notice was posted in the Ogden Standard Examiner. A copy of the proposed action was posted on the Forest website and a notification letter was sent to individuals and organizations on the District mailing list. Hard copies of the proposed action were available at the Ogden District Office. A detailed listing of public comments, along with our response, is included in the EA Chapter 4.

Finding of No Significant Impact

After carefully considering the environmental effects described in the EA, I have determined that my decision will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared on this action. I base my finding on the following:

1. The beneficial effects of the action do not bias my finding of no significant environmental effects.
2. There will be no significant effects on public health and safety.
3. There will be no significant effects on unique characteristics of the area. A survey was conducted and the Forest archeologist made the determination this decision will not significantly affect cultural resources in the project area. There will be no impact on historic or cultural features (EA, Section 1.9.4). There are no permanent effects to parklands, prime farmlands, wetlands, ecologically critical areas, or wild and scenic rivers.
4. The effects on the quality of the human environment are not highly controversial. There is no known scientific controversy over the impacts of this project (EA, Chapter 3).
5. The environmental analysis shows the effects are not uncertain (EA, Chapter 3), and do not involve unique or unknown risk. The Forest has authorized livestock grazing on other allotments on the Forest with no uncertain or unique risk.
6. This decision will not establish a precedent for future actions with significant effects.
7. The cumulative impacts are not significant (EA, Chapter 3).
8. This decision will have no significant adverse effects on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historical Places. This action will also not cause loss or destruction of significant scientific, cultural or historical resources (EA, Section 1.9.4).
9. This decision will not adversely affect any threatened or endangered species or its habitat that has been determined to be critical under the Endangered Species Act of 1973 (EA, Section 1.9.1, 3.2, and 3.7, as well as the Biological Assessment and Biological Evaluation in the Project Record).
10. This decision will not violate Federal, State, and local laws or requirements for the protection of the environment.

Findings Required by Other Laws and Regulations

Numerous laws, regulations, and agency directives require that my decision be consistent with their provisions. My decision is consistent with all laws, regulations, and agency policy relevant to this project. The following discussion is intended to provide information on the regulations that apply to issues raised and comments made by the public or other agencies.

National Forest Management Act of 1976 (PL-94-588) – The National Forest Management Act directs that management activities be consistent with the Forest Plan. Based on the discussions provided in the EA, I have concluded my decision is consistent with provisions of the 2003 Revised Land and Resource Management Plan for the Wasatch-Cache National Forest (Forest Plan), including Goals, Management Prescriptions, and Standards and Guidelines (see EA, Chapter 3 and Appendix A).

Clean Water Act – The Clean Water Act requires each state to implement its own water quality standards. The State of Utah’s Water Quality Anti-degradation Policy requires

maintenance of water quality to protect existing in stream Beneficial Uses on streams designated as Category 1 High Quality Water. All surface waters geographically located within the boundaries of the Wasatch-Cache National Forest whether on public or private lands are designated as Category 1 High Quality Water. Based on the management requirements and mitigation measures included in my decision (Decision Notice, Appendix B) and the analysis presented in the Water Resources section (EA, Section 3.6) I have concluded that my decision will maintain water at existing high quality and is consistent with the Clean Water Act.

Executive Order 11990 of May 1977 – This order requires the Forest Service to take action to minimize destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. In compliance with this order, Forest Service direction requires that analysis be completed to determine whether adverse impacts would result. As disclosed in the EA, my decision will have no adverse effects to wetlands located within the Woodruff Dairy Ridge Allotments and therefore is in compliance with EO 11990 (see EA, Section 3.6).

Executive Order 11988 of May 1977 – This order requires the Forest Service to provide leadership and take action to (1) minimize adverse impacts associated with occupancy and modification of floodplains and reduce risk to flood loss, (2) minimize impacts of floods on human safety, health and welfare, and (3) restore and preserve natural and beneficial values served by floodplains. My decision will have no adverse effects on floodplains (see EA, Section 3.6).

Endangered Species Act – This Act directs that all Federal departments and agencies shall seek to conserve endangered, and threatened (and proposed) species of fish, wildlife and plants. This obligation is further clarified in a National Interagency Memorandum of Agreement (dated August 30, 2000) that states our shared mission to “...enhance conservation of imperiled species while delivering appropriate goods and services provided by the lands and resources.”

Based on the information disclosed in the EA (Sections 1.9.1, 3.2, and 3.7) and the Biological Assessment (available in the project file) I have determined my decision will not significantly affect populations of endangered, threatened, and candidate species of fish, wildlife and plants. This is because there is no suitable habitat within the project area, the species are not found within the project area, and/or the effect of cattle grazing relative to populations is minor and will have no effect on populations or trends. A determination of “no effect” was made for the black-footed ferret, yellow-billed cuckoo, Maguire’s primrose, and Ute ladies’ tresses. A determination of “may affect individuals, but is not likely to adversely affect the lynx or their habitat” was made for the Canada lynx. Concurrence from the US Fish and Wildlife Service was obtained on September 8, 2009 (letter in the project file).

Executive Order 13186 of January 10, 2001 – Chapter 3, Section 3.7 of the EA discloses the effects of cattle grazing on migratory birds, primarily as related to the effects on their habitats, including sagebrush communities and riparian areas. My decision will lead to improved species diversity over time, through deferred grazing and increased livestock control. Based on this information and information in the project file concerning migratory birds, my decision is in compliance with this Executive Order for the Conservation of Migratory Birds.

Executive Order 13112 – Invasive Species – This Executive Order directs that Federal Agencies should not authorize any activities that would increase the spread of invasive species. My decision includes aggressive noxious weed management to effectively reduce the spread of existing and new infestations of noxious weeds and invasive plant species in accordance with the Record of Decision for the WCNF Noxious Weed EIS (EA, Section 1.9.2). Therefore, my decision is consistent with this order and will not increase the spread of invasive species.

American Antiquities Act of 1906 and the National Historic Preservation Act of 1966 – A survey was conducted and the Forest archeologist made the determination livestock grazing will not significantly affect any cultural resources in the project area; no historic or cultural features will be impacted (EA, Section 1.9.4). Therefore, my decision is in compliance with these Acts.

Prime Farmland, Rangeland and Forest Land (Secretary of Agriculture Memorandum 1827) – My decision does not make any changes to boundaries of grazing allotments or forest lands found within the project area.

Civil Rights – Based on comments received during scoping and the comment period no conflicts have been identified with other Federal, State or local agencies or with Native Americans, other minorities, women, or civil rights of any United States citizen.

Executive Order 12898 of February 16, 1994 “Federal Actions to Address Environmental Justice on Minority Populations and Low-income Populations” – This order requires federal agencies to the extent practicable and permitted by law to make achieving environmental justice part of its mission by identifying and addressing as appropriate disproportionately high and adverse human health effects, of its programs and policies and activities on minorities and low-income populations in the United States and territorial possessions. In compliance with this Executive Order the Uinta-Wasatch-Cache National Forest through scoping and public involvement attempted to identify interested and affected parties, including minorities and low-income populations for this project. A comment period was held for 30 days following the publication of the legal notice in the Ogden Standard Examiner. No minorities and low-income populations were identified during public involvement activities. (EA, Section 1.9.6).

Violating Federal, State and Local Laws – My decision does not violate any Federal, State or local laws or requirements for the protection of the environment.

Administrative Review or Appeal Opportunities

This decision is subject to administrative review (appeal) pursuant to 36 CFR Part 215. The Appeal Deciding Officer is Forest Supervisor Brian Ferebee. Appeals must be sent to: Appeal Deciding Officer, Intermountain Region USFS, 324 25th Street, Ogden, Utah 84401 fax 801-625-5277. The office business hours for those submitting hand-delivered appeals are: 8:00 to 4:30, Monday through Friday, excluding holidays. Electronic appeals must be submitted in a format such as an email message, portable document format, rich text format (.rtf), and Word (.doc or .docx) to appeals-intermtn-regional-office@fs.fed.us. In cases where no identifiable name is attached to an electronic message, a verification of identity will

be required. A scanned signature is one way to provide verification. Only individuals or organizations who submitted comments during the comment period specified at 215.6 may appeal this decision. The notice of appeal must meet the appeal content requirements at 36 CFR 215.14.

Appeals, including attachments, must be filed within 45 days from the publication date of the legal notice in the Ogden Standard Examiner, the newspaper of record. Attachments received after the 45-day appeal period will not be considered. The publication date in the Ogden Standard Examiner is the exclusive means for calculating the time to file an appeal. Those wishing to appeal this decision should not rely upon dates or timeframe information provided by any other source.

Implementation Date

If no appeals are filed within the 45-day time period, implementation of the decision may occur on, but not before, 5 business days from the close of the appeal filing period. When appeals are filed, implementation may occur on, but not before, the 15th business day following the date of the last appeal disposition.

Contact

For additional information concerning this decision or the Forest Service appeal process, contact Rick Hopson, District Ranger, 507 25th Street, Ogden, UT, 84401, phone (801) 625-5112.

/s/Richard G. Hopson

9/30/2009

RICHARD G HOPSON

DATE

Acting Ogden District Ranger

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Appendix A

Mitigation and Management Requirements

Mitigation measures, Best Management Practices (BMPs), and Forest-wide standards and guidelines included in all action alternatives are listed below. Research and information substantiating these requirements are found in the Forest Plan and FEIS (USFS 2003).

Management Requirements

The Forest Plan (USFS 2003, p. 4-36 thru 4-56 and 4-58 thru 4-78) contains standards and guidelines (see Forest Plan, p. 3-36 for definition of these 2 terms) including some applicable to livestock grazing. Those pertinent to the project area and this environmental analysis are summarized in the following tables:

Table A1: Forest Plan Standards (S) that apply to this project.

(S4) Place new sources of chemical and pathogenic pollutants where such pollutants will not reach surface or ground water. (Forest Plan, p. 4-36)		
(S7) Allow management activities to result in no less than 85% of potential ground cover for each vegetation cover type. (Forest Plan, p. 4-37). (See Forest Plan, Appendix VII for potential ground cover values by cover type).		
(S24) As a tool to achieve desired conditions of the land, maximum forage utilization standards for vegetation types in satisfactory condition using traditional grazing systems (rest rotation, deferred rotation, season long) are as follows:		
Table S24: Percent utilization of key grass or grass like vegetation, by vegetation type, for rangelands in satisfactory condition.		
Vegetation Type	Condition	Percent Utilization of Key Grasses or Grass-Like
Upland and Aspen	Satisfactory	50%
Crested Wheatgrass	Satisfactory	60%
Riparian* Class I	Satisfactory	50%
Riparian* Class II & III	Satisfactory	60%
* Riparian, away from greenline		
(S25) As a tool to achieve desired conditions of riparian areas, maximum forage utilization standards (stubble height) for low to mid elevation <i>greenline</i> species in Class I, II, and III riparian areas (see Appendix VII) in satisfactory condition are as follows: (Key species being grazed include water sedge, Nebraska sedge, and and/or woolly sedge.)		
Table S25: Greenline stubble height at the end of the growing season, by riparian class, for rangeland satisfactory condition.		
Vegetation Type	Condition	Greenline Stubble Height at End of Growing Season
Riparian Class I	Satisfactory	No less than 5"
Riparian Class II	Satisfactory	No less than 4"
Riparian Class III	Satisfactory	No less than 3"
(S26) For all rangelands, including big game winter range and riparian areas, permit no		

more than 50% of the current year's growth on woody vegetation to be browsed during one growth cycle (i.e., when use has reached 50% allow no additional livestock use). (Forest Plan, p. 4-52)

Table A2: Forest Plan (Forest Plan) Guidelines (G) that apply to this project.

(G3) Proposed actions analyzed under NEPA should adhere to the State Nonpoint Source Management Plan to best achieve consistency with both Sections 313 and 319 of the Federal Water Pollution Control Act. (Forest Plan, p. 4-37)
(G4) At the end of an activity, allow no more than 15% of an activity area to have detrimental soil displacement, puddling, compaction and/or to be severely burned. (Forest Plan, p. 4-37)
(G7) Manage Class 1 Riparian Area Greenlines for 70% or more late-seral vegetation communities as described in Intermountain Region Integrated Riparian Evaluation Guide (USFS, 1992). Manage Class 2 Riparian Area Greenlines for 60% or more late-seral vegetation communities. Manage Class 3 Riparian Area Greenlines for 40% or more late-seral vegetation communities. (Forest Plan, p. 4-37)
(G9) Avoid soil disturbing activities (those that remove surface organic matter exposing mineral soil) on steep, erosive, and unstable slopes, and in riparian, wetlands, floodplains, wet meadows, and alpine areas. (Forest Plan, p. 4-38)
(G11) Use Best Management Practices & Soil & Water Conservation Practices during project assessment/ implementation to ensure maintenance of soil productivity, minimization of sediment discharge into streams, lakes and wetlands to protect designated beneficial uses (Forest Plan 4-38)
(G12) Locate new actions (such as incident bases, fire suppression camps, staging areas, livestock handling facilities, recreation facilities, roads and improvements) outside of Riparian Habitat Conservation Areas. If the only suitable location for such actions is within Riparian Habitat Conservation Areas, sites will be located to minimize resource impacts (Forest Plan, p. 4-38)
(G14) Manage vegetation for properly functioning condition at the landscape scale. Desired structure and pattern for cover types of the Wasatch-Cache National Forest (from USFS 1996) ... are as follows ... (USFS 2003, Forest Plan p. 4-39 thru 4-42)

Table G14. Desired Structure and Pattern for Cover Types

Cover Type	Landscape Structure	Landscape Patterns
Aspen	<u>Balanced Range:</u> Grass/Forb and Seedling/Sapling = 40 % Young, Mid Aged and Mature forests = 30% Old Forests = 30% Stand Density Index > 300 and Basal Area < 140.	Patterns are within historical ranges. Pattern sizes, shapes and corridors are maintaining processes. The role of fire is to influence distribution of structural classes and patterns across landscapes.
Pinyon-Juniper	<u>Guideline direction for this cover type is not shown here as this cover type is not applicable in this project area.</u>	
Mountain Mahogany	<u>Guideline direction for this cover type is not shown here as this cover type is not applicable in this project area.</u>	

Tall Shrub (Mountain Brush)	Multiple vegetation layers with alternating vertical dominance.	Acreages and dispersion within historical ranges.
Sagebrush(Big)/Grassland	Balanced range of structural stages. 40% of area with 15% or more crown cover (as measured by line intercept method).	Patterns are within the historical range.
Riparian	Amount and type of vegetation types present that maintain riparian-dependent resources and provide a high rate of recovery following disturbance.	Plant community type compositions and accompanying riparian ecosystem functions maintain proper ground water recharge, storage, delivery, water tables, channel morphology and bank stability.
(G71) As a tool to achieve rehabilitation of upland, aspen, and riparian communities away from the greenline that are not meeting or moving toward objectives (i.e. in unsatisfactory condition), maximum allowed forage utilization will be 30-40 percent.		

Appendix B

Table B1: Additional Site-Specific Desired Conditions

Resource Ecosystem Community Type	Applicable Component of the Forest Plan Prescribed Desired Future Condition	Additional Site-Specific Desired Condition
Soil productivity	<p>Most soils have at least minimal protective ground cover. Soils have adequate physical properties for vegetative growth and soil-hydrologic function. Degradation of soil quality and loss of soil productivity is prevented. Soil productivity, quality, and function are restored where adversely impaired and contributing to an overall decline in watershed condition.</p>	<p>Minimal protective ground cover is defined by Forest Plan standard S7 as at least 85% of potential. In tall forb communities minimum ground cover is defined by Guideline G14 as at least 90% of potential. (see S7 and G14 in Appendix A, above).</p> <p>The Forest Plan (p. VII-1) identifies the following minimum ground covers (85% of potential) for some of the vegetative types in the project area:</p> <ul style="list-style-type: none"> • 76-82% silver sagebrush • 69-82% in few-flowered-sagebrush • 59% in low sagebrush • 78% in snowberry • 60-70% in curleaf mountain mahogany • 77-83% in aspen <p>Applying the direction above, the ID team determined that for this allotment the desired condition is to maintain at least the following average ground covers (% of potential) in vegetation communities impacted by livestock grazing:</p> <ul style="list-style-type: none"> • 78% in aspen, silver sagebrush and mountain brush communities. • 69% in few-flowered sagebrush • 60% in low sagebrush and curleaf mountain mahogany • 73% in mountain big sagebrush (potential is 81 to 96%; as reported in the North Rich Allotment FEIS potential there was 86%. The potential for these communities on these allotments is similar). • 85% in mesic riparian vegetation types.
Riparian areas	Riparian areas have a range of vegetative structural stages that are at or moving toward properly functioning condition,	Class I riparian areas within the project area listed in the Forest Plan is: Sugar Pine (USFS 2003,

Resource Ecosystem Community Type	Applicable Component of the Forest Plan Prescribed Desired Future Condition	Additional Site-Specific Desired Condition
	<p>provide a transitional zone between upland terrestrial habitats and aquatic habitats, and have the features necessary to promote stable stream channels and diverse habitat conditions. Desirable riparian vegetation occupies the historical floodplain. Riparian areas provide for fish, wildlife, and water quality requirements.</p>	<p>Forest Plan p. VII-7)</p> <p>In addition to the riparian area identified in the Forest Plan and listed above, in accordance with Forest Plan direction (p. VII-2 and VII-3) the ID Team has identified other Class I riparian areas. For specific locations see Map in Appendix A of the EA.</p> <p>No Class II riparian areas within the project area are identified in the Forest Plan (USFS 2003, p. VII-7).</p> <p>In accordance with Forest Plan direction (p. VII-2 and VII-3), the ID Team has identified Class II riparian areas. For specific locations see Map in Appendix A of the EA.</p> <p>All riparian areas not identified above as Class I or II are Class III riparian areas.</p>
Springs and wetlands	<p>Spring sources and associated wetlands in the Cache Box Elder Management Area will be protected from excessive use and will be restored to proper functioning. Riparian areas will be protected from overuse and trampling from livestock grazing and recreation uses. Spring sources will be fenced and provide water for livestock.</p>	<p>Existing livestock spring/wetland protection fences will be maintained in order to protect vegetation, water quality and habitat associated with these areas.</p> <p>Riparian areas will have adequate deep-rooted vegetation or armoring along banks to allow for sediment filtering and erosion prevention.</p> <p>Proper function of wetlands and riparian areas associated with springs will be maintained to meet or exceed conditions outlined in Forest Plan standards and guidelines S24, S25, S26, G4 and G7 (see Appendix A of this Decision Notice).</p>
Aquatic Habitats	<p>Habitats will be managed to maintain cool, clear water and well-vegetated stream banks for cover and bank</p>	<p>Undisturbed stream banks exist on at least 80% of Class I riparian areas.</p>

Resource Ecosystem Community Type	Applicable Component of the Forest Plan Prescribed Desired Future Condition	Additional Site-Specific Desired Condition
	stability. Cool water temperatures will be preserved through well-vegetated banks.	Pool-riffle ratios are approximately 1:1 in fish-bearing streams. Summer water temperatures in fish-bearing streams average <20°C.
Aspen	Associated herbaceous and woody vegetation in aspen communities is highly variable and is dominated by desired perennial grasses and forbs with a range of shrub cover.	At least 10% of the understory cover in aspen communities is comprised of desired tall forb species ¹ .
Upland vegetation and big game winter range	Maintain upland (sagebrush, mountain brush, grassland) plant communities are dominated by desired perennial grasses, forbs, and have a range of shrub cover. Associated herbaceous and woody vegetation provides for plant communities that are diverse in seral status and structure and provide food and habitat for wildlife, forage for livestock, and a variety of recreational opportunities and aesthetic values.	A wide variety of sagebrush cover closures exist, with a maximum closure of 35%. Most (greater than 50%) vegetation cover in sagebrush stands are desired grass and forbs. Snowberry, serviceberry, chokecherry, and elderberry are present in mountain brush communities.
Riparian vegetation	Riparian areas have a mix of seral and climax vegetation that is at or approaching PFC. Trees, willows, dogwood, birch, alder, sedges, rushes and hydric grasses, depending on stream substrate, gradient, and elevation, dominate riparian areas. These areas provide healthy self-perpetuating plant communities. Riparian plant habitats and rare riparian species will be protected from trampling	Adequate vegetative cover (as defined by the heights prescribed in Forest Plan standards S24 and S25- see Appendix A of this Decision Notice) provide filtering of runoff, protection of the soil, and habitat for wildlife in riparian areas. Riparian shrub and trees are perpetuated by retaining at least 50% of annual growth of these plants (i.e., as provided for in Forest Plan standard S26 - see Appendix A of this Decision Notice).

¹ Plant species listed as moderate or high value rating for erosion control/watershed protection in the Region 4 Forest Service Handbook 2209.21 – Range Management Resource Value Ratings Guide.

Resource Ecosystem Community Type	Applicable Component of the Forest Plan Prescribed Desired Future Condition	Additional Site-Specific Desired Condition
	and overuse by livestock grazing and recreational uses.	
Rangeland/Livestock Grazing	Livestock grazing is a permitted use. Grazing levels will be adjusted and managed with up-to-date Allotment Management Plans (AMPs). AMPs prescribing rest and deferred rotation grazing systems and riparian pastures will be in place. Structural improvements such as fences and water developments will be constructed or reconstructed and maintained to improve animal distribution and control. Structural improvements that are not needed will be removed from the forest. Grazing permit holders will move livestock as needed to meet management objectives for the ground. Ongoing ecosystem monitoring will be used to refine standards. Permit holders will share responsibility with the Forest Service for monitoring use, and will hold full responsibility for movement and control of livestock. Excess and unauthorized livestock use will be minimal. The number of term grazing permits will be reduced by the formation of grazing associations and the issuance of grazing agreements instead of individual permits.	Grazing levels will be adjusted and managed with an up-to-date Allotment Management Plan (AMP) that prescribes grazing systems and establishes management that ensures the time and timing of grazing is altered annually. When and/or if needed, structural improvements such as fences and water developments will be constructed or reconstructed and maintained, to improve animal distribution and control.

Appendix C

Monitoring Activities Included in the Decision

The following monitoring activities would be conducted by the Forest Service to evaluate range conditions and to ensure compliance with the grazing permit and management requirements listed above.

(1) Livestock management

What: Monitor livestock distribution to ensure livestock are in areas authorized for grazing.

Why: To protect unauthorized areas from livestock grazing to help achieve desired conditions.

How often: Throughout the grazing season

How the results will be used: Information would be documented and shared with the permittees to ensure livestock are in the proper locations. If livestock are found in an unauthorized area it would be considered non-compliance and appropriate administrative action would be taken according to Forest Service Handbook direction (FSH 2209.13, Chapter 10, section 16).

(2) Annual upland and riparian utilization and use

What: Annual monitoring will include collecting and recording the following information:

a. Annual utilization on upland and riparian key areas, including:

- 1) Silvia Hollow-MIM (riparian)
- 2) Peggy Hollow-MIM (riparian)
- 3) Peggy Hollow Bench-(upland)
- 4) 1 of the permanent sagebrush plots (Williams 2003)-rotated annually (upland)

b. Annual utilization near ponds, seeps, and springs:

- 1) Red Rock Springs-utilization (ponds/seeps)
- 2) Wheeler Creek below Ranger Hollow-stubble height (ponds/seeps)
- 3) Swan Spring-utilization (ponds/seeps)

c. Annual utilization in aspen:

- 1) Stands to monitor include #1, 5, 6, 15, 35 (from Williams 2003 Study); 1 stand each year, rotated to the next one every second year; utilization threshold is 35% (rangelands in unsatisfactory conditions, per Forest Plan Guideline G71)

Why: To maintain proper livestock distribution and ensure utilization standards are not exceeded, in order to maintain satisfactory conditions, improve unsatisfactory conditions, and help move toward desired conditions.

How often: Utilization and livestock distribution during and at the end of the grazing season.

How the results will be used: The information will be used to determine when livestock must be moved from one area to another or off the allotment after all areas have been grazed, and to make any necessary adjustments to numbers and/or season of use.

(3) Long-term upland condition and trend

What: Long-term trend monitoring will be conducted on some of the previously established long-term study sites. Additional sites may be determined through field assessment.

Why: To evaluate vegetation conditions and identify whether or not they are at or moving toward desired conditions in riparian and upland areas.

How often: About every 10 years.

How the results will be used: Information will be used to determine if the area is meeting or moving toward desired conditions. Long-term trend data will be used to evaluate timing, intensity, frequency and management of grazing. As necessary, annual triggers affecting the timing, intensity, frequency and management of grazing would be adjusted to meet long-term desired resource conditions.

a. Aspen long-term trend monitoring

- 1) Include one of the following: #1,5,6,15,35 (from Williams 2003 Study); 10-year intervals; monitor ground cover and species composition

Threshold:

- At least 10% of the understory cover in aspen communities is comprised of desired tall forb species
- 78% ground cover or better

b. Sagebrush/mountain brush long-term trend monitoring

- 1) Include one of the sagebrush plots from the Williams 2003 Study; 10-year intervals; monitor ground cover and species composition
- 2) Peggy Hollow Bench; 10-year intervals; monitor ground cover and species composition
- 3) Include an upland site near one of the pond/seep utilization monitoring areas; 10-year intervals; monitor ground cover and species composition

(4) Riparian area/water/aquatic habitats

What: Multiple Indicators Monitoring System (MIMS) on the following:

- 1) Silvia Hollow
- 2) Peggy Hollow
- 3) Wheeler Creek below Ranger Hollow

Why: To ensure that riparian environments are protected from trampling and vegetation loss and that water quality and aquatic habitats are maintained.

How often:

- Annual protocol: Stream-bank alteration and green-line utilization
- Every 5-10 years: other MIM protocols, as needed, for long-term monitoring of riparian areas/water/aquatic habitats

How the results will be used: The information will be used to evaluate movement toward desired conditions in riparian areas. If monitoring indicates that degraded riparian areas are developing and/or existing degraded riparian areas have not improved in condition (using indicators such as increased riparian vegetation diversity and structure, streambank disturbance, and channel width) then an alternative management strategy such as fencing key riparian areas would be implemented. Fencing would require further NEPA analysis on the site-specific environmental effects of the fencing.