APPENDIX G
MONITORING PLAN

INTRODUCTION

This monitoring plan is developed to guide monitoring efforts specifically related to the decision implemented by the Record of Decision to the Reissuance of Term Grazing Permits on Eight Cattle Alotments on the Beaver Mountain Tushar Range EIS (ROD). This monitoring plan will be implemented if any decision other than no grazing is selected. Monitoring of these allotments would determine success with annual use objectives and compliance with management direction included in the AMPs. Monitoring would occur in a format whereby specific monitoring protocols are followed and data are collected. Annual livestock use would be monitored through the standard allotment administration and the Implementation Monitoring Program.

ALLOTMENT ADMINISTRATION / IMPLEMENTATION MONITORING

The ID team identified two broad levels of monitoring: implementation and effectiveness. Implementation monitoring determines if the selected alternative was implemented as described in the decision. Monitoring would include annual, short-term monitoring to determine if livestock are managed as directed in the AMP and annual operating instructions (AOI). This monitoring would be completed through field observations documented in allotment notes. For example, allotment administrators would determine if livestock were moved to a different pasture or removed from the allotment when utilization parameters were met (forage utilization, stubble height, browse utilization). Livestock operators would be encouraged to assist in monitoring. At the end of each year, these observations would be summarized and a determination made if overall, on-the-ground management practices met the prescribed parameters. If these parameters were exceeded, administrative action described in FSH 2209.13 section 16.21 would be followed.

The following implementation monitoring practices will be applied, as applicable:

1. Utilization monitoring to determine compliance with identified allotment allowable use or proper use standards and guidelines.

2. Monitoring of utilization levels on some upland range sites to determine herding, distribution, and improvement needs; monitoring of utilization levels in riparian areas to determine areas of concentration and requirements to maintain proper use.

3. Monitoring of riparian areas for timely removal of livestock and compliance to grazing system strategies.

4. Monitoring for the presence of livestock in closed units or outside the permitted area or season.

5. Determination if grazing at proper use is maintaining water quality standards in compliance with the existing Memorandum of Understanding with the Utah Department of Environmental Quality.

One or more "key areas" would be established within riparian areas in every pasture permitted for grazing within the project area allotments. These areas define where the required implementation monitoring occurs. As directed, these selected areas are to be: among the most sensitive areas from the standpoint of livestock grazing; contain impacts that result principally from livestock grazing; represent areas used by livestock, and; have the potential to respond to and measure changes in grazing management.

Annual forage utilization standards established within the Forest Plan or Management Area direction, or allotment specific direction to be monitored within key areas are identified in Table G-1:

Table G-1		
Maximum Allowable Forage Use Criteria		
Vegetation Type	**Stubble Height/Use**	**Comments**
Riparian Hydric Species	4"	Triggers the time to move livestock between units or off the allotment
Riparian Emphasis Management Areas	6"	Triggers the time to move livestock between units or off the allotment
Non-hydric Sod-Forming Grass Species in Riparian Areas	1 ½ "	Primarily Kentucky bluegrass--Triggers the time to move livestock between units or off the allotment
Wheatgrass Seedings	60%	Management option to exceed 60% use to maintain healthy seedings
Riparian/Upland Browse Sprouts and Young-Aged Plants	≤40%	# of current year's available twigs removed
Riparian/Upland Mature Browse	≤50%	# of current year's available twigs removed
Upland Grass/Forb	40-60% of key species; varies by grazing system and desired condition	% of current year's growth
Riparian Ground Cover	Maintain ground cover of at least 70% within riparian areas	

Copies of allotment inspections and condition assessments would be filed in the project monitoring file. Estimated grazing capacities for the allotments would be verified by documentation of proper use criteria inspections. If trends to desired conditions are not positive, or use criteria are not being met during the permitted grazing season, capacities would be examined for potential adjustments. Opportunities for alternative resource management strategies utilizing livestock on public lands would be considered if permittees approach the Forest Service.

In the case of short-term monitoring strategies, data should be reviewed immediately to determine if management action (livestock movements, etc.) is necessary. An annual review of both short and long-term monitoring results between permittees and the District range specialist may provide an opportunity to evaluate consistency in observations and to discuss the relevance of the results to management decisions.

Fences damaged on public land would be the responsibility of the permittee to detect and repair. The USFS would cooperate in providing materials for heavy maintenance or reconstruction. Fences that are damaged repeatedly by wildlife in a certain area would be reviewed for possible reconstruction to better accommodate their passage.

Grazing permittees often are in a position to collect rangeland monitoring data which would not otherwise be collected. Should a permittee choose to collect range monitoring information in a voluntary and unsupervised manner, the proper use of approved methods will generate reliable data. It should be noted

that voluntary participation or lack thereof will in no way encumber the status of grazing permits currently held by range allotment permittees; however, permittees may find that such monitoring will greatly facilitate movement of livestock at proper times and may alleviate possible adjustment actions because of over use.

Voluntary permittee monitoring is designed to help permittees to better manage their livestock allotments, to determine appropriate times to move livestock within units, to note livestock distribution needs and opportunities, and to determine needed range improvements. It is intended to supplement rather than relieve the Forest Service from its rangeland monitoring responsibilities. The Forest Service retains the responsibility for ensuring that permittee data is consistent and repeatable.

Monitoring data gains importance by associating it with data from prior years. Therefore, it is recommended that the permittee establish a permanent notebook of monitoring data in which photographs and data forms are stored. The permittee or range management specialist should summarize monitoring data annually. It is recommended that evaluation of monitoring data be developed cooperatively between the permittee and the District range specialist.

EFFECTIVENESS MONITORING

Effectiveness monitoring determines if results achieved match expected outcomes. For example, if Alternative A is selected, the environmental effects described for Alternative A in Chapter 4 are expected to occur. Effectiveness Monitoring is long-term monitoring to determine if management practices accomplished what was desired over time; i.e. did proper use improve vegetative conditions? Effectiveness monitoring would be accomplished through the establishment and maintenance of long-term monitoring sites.

If monitoring reveals lack of progress in maintaining or moving toward desired conditions, or raises questions on the validity of resource objectives, consideration will be given to making changes to address problems that have been revealed.

Resource conditions and trend, relative to desired conditions within the allotments, would be determined consistent with the monitoring and evaluation direction of the Forest Plan.
This monitoring would determine if the authorized level of livestock grazing, as well as the prescribed use standards are effective in maintaining or moving toward desired resource conditions. Chapter IV of the Fishlake National Forest Plan outlines the monitoring elements and objectives.