

LITTLE LOST-BIRCH CREEK EIS MONITORING PLAN

Decisions made in the planning and environmental statement process have resulted in many changes in resource management on the Little Lost-Birch Creek Planning Unit. The changed management will result in impacts to the vegetative and animal communities. Changes in vegetative condition were predicted in the EIS and these changes must be documented. Also, forage production must be measured to form a basis for future adjustments in stocking rate. Therefore an orderly system of monitoring changes in the environment and documenting use intensities must be started to establish a basis for future management decisions.

The following monitoring programs will be used to evaluate management practices and measure impacts on the environment.

I. Livestock and Vegetation

A. Actual use records

Each operator will be required to submit actual grazing use reports. The reports will be required within 15 days after the close of an individuals grazing season.

The range conservationist assigned to the planning area will instruct the grazing operator on how to keep records on livestock numbers and use dates. Actual use data will be collected starting from the time the allotment is placed on actual use billing status. This information will be used for billing purposes then will be recorded in allotment folders.

B. Range use supervision

Range use supervision will be done by the range use supervisor and/or the range conservationists assigned to the planning unit. Use supervision will consist of a general schedule of allotment checks designed to detect and record allotment problems. Data collected will be kept in the allotment folder. Specific items and check methods will be as follows:

1 - Livestock numbers and location

- (a) Periodic aircraft surveillance with records kept on livestock numbers and location by allotment.
- (b) Ground checks will be conducted in each allotment during each grazing treatment. Records will be kept on livestock numbers and location. Livestock numbers and location will be monitored throughout the grazing season each year.

2 - Forage utilization checks

Forage utilization will be monitored in each allotment using the key forage plant method. Forage utilization will be checked within a week after the cattle move from a pasture. These checks will be initiated during the 1981 grazing season and will continue each year.

3 - Range condition and trend studies

These studies will be done in each pasture to establish a long-term record of plant response to the grazing system. The information will be collected from photo points (3' x 3' plot view and a general view) established in each pasture.

Information will also be collected from a 100 point vegetative transect that will be established in each pasture adjacent to the photo point. The condition and trend studies for the first eight allotments were established in 1980. The remaining allotments will have studies established in each pasture during 1981. Study plots will be read annually throughout the first cycle of the grazing system. Then only in rested or deferred pasture during subsequent grazing cycles.

C. Climatological Data

This information will be collected from the Weather Bureau's report station nearest to the planning unit. The Weather Bureau information will be supplemented by rain gauges set out at strategic locations. These rain gauges will be read throughout the year on the approximate dates as follows:

- 1 - April 1 (Beginning of growing season)
- 2 - June 15 (End of growing season)
- 3 - November 1 (Beginning of winter)

Effective rainfall will be monitored by four soil moisture blocks placed at key locations in the planning unit. These will be read in conjunction with the rain gauges. Rainfall and soil moisture data will be collected in an allotment until the vegetative improvement goals predicted by the ES are met.

Information from the above listed studies will be summarized annually and placed in the allotment folders. To collect data from the above listed studies will require an estimated 3 work months each grazing season.

II. Terrestrial Wildlife

Key wildlife habitat (big game fawning and wintering areas, sage grouse strutting grounds) will be monitored to detect changes in habitat condition, impacts of wildlife on habitat and the impacts of livestock on wildlife habitat. The area wildlife biologist will be responsible for establishing and reading the following studies.

A. Big game winter range

- 1 - Each pasture of allotments containing crucial deer, antelope, or elk winter range will have a study group consisting of one Cole method transect, one pellet group transect and a general photo point. Crucial big game winter range is mapped on pages 2-20 and 2-21 of the Little Lost-Birch Creek EIS.
- 2 - The Bell Mountain allotment will have a special study to determine the impacts of the cattle on the deer winter range. The special study will be done by the area wildlife biologist. Fecal samples will be collected weekly from November 15 to December 10 from cattle using the deer range. These samples will be analyzed and a copy of the information will be placed in the allotment folder.
- 3 - Big Game Population Trends
Starting in January 1982, annual counts will be made on big game using the planning area. These counts will be made in cooperation with the Idaho Fish and Game Department. Annual counts will require approximately 10 hours helicopter time and 5 hours fixed wing time.

Information from these counts will be summarized annually by allotment and the information placed in the allotment folder.

B. Antelope fawning grounds

Each pasture of allotments containing crucial antelope fawning grounds (see page 2-20 of EIS for map of fawning grounds) will have a study group consisting of one 200 point vegetative cover transect, one pellet group transect and a general photo point. Information from this study group will be summarized annually and placed in the allotment folder.

C. Sage grouse population

Sage grouse population trends will be monitored by conducting strutting ground counts. These counts will be made in cooperation with the Idaho Fish and Game Department. Counts will be made in 10 strutting grounds per year. Data from these studies will be summarized annually and placed in the allotment folders.

The above wildlife studies will require an estimated two work months.

III. Aquatic Life

Studies to assess the impacts of livestock on aquatic life and stream bank vegetation will be conducted annually. These studies will be set out and read by the District Fisheries Biologist, assisted by the Resource Area Wildlife Biologist.

Aquatic life studies will be started in an allotment at the same time the grazing system goes into effect. The following studies will be required:

- 1 - Photo points - these points will be set out at approximately one mile intervals on the fish producing streams mapped on page 2-27 of the EIS.
- 2 - Standard stream transects - these studies will be conducted on Wet Creek (layout done in 1980) and on streams where significant change in grazing use is expected: Big Creek, Summit Creek in Bell Mountain and Summit allotments, and Fallert Creek, Warms Spring Creek and Squaw Creek.

These transects will be read annually throughout the first cycle of the grazing system and thereafter at three-year intervals. Information from each reading will be summarized and placed in the allotment folders.

- 3 - Fish population studies - shocking transects are presently in place on Wet Creek and Birch Creek. The Wet Creek shocking study will be done at three-year intervals starting with the initial study in 1980. These studies will be done with BLM equipment and personnel.

Birch Creek is being monitored by the Idaho Fish and Game Department on a regular and continuing basis. This information will be obtained from the Idaho Fish and Game Department by the Resource Area Wildlife Biologist.

Information from the above studies will be summarized after collection periods and placed in the appropriate allotment folders.

The fish population and habitat studies will require an estimate of one work month annually to complete.

IV. WATER RESOURCES/WATERSHED MONITORING

1. ISSUE - A large portion of upper Wet Creek was fenced during the summer of 1980. The fishery is good containing wild rainbow and dolley varden trout. Monitoring is needed to determine the rate of stream improvement and fisheries enhancement.

ACTION - Upgrade present monitoring network to study level status for the "Alternatives to Fencing" Study. Study measurements will include: low level aerial photo reconnaissance with LMS analysis (every 1-3 years), channel transect analysis (yearly), invertebrate analysis (twice yearly), and population analysis thru electrofishing transects (yearly). See "Wet Creek Study Plan" for further details.

2. ISSUE - Birch Creek is intersected by a number of allotments each with a different grazing system or grazing intensity. Many have undergone recent grazing changes. The stream supports a blue ribbon fishery containing primarily wild rainbow trout and a few hatchery trout. The riparian zone should be monitored for long term changes as affected by the variety of grazing systems.

ACTION - A low level aerial photo flight will be made every 3-4 years with LMS analysis to determine riparian trend. (Trend data for the riparian area could be correlated to any shocking data obtained to determine the grazing impacts to the fishery.)

3. ISSUE - North Creek Ruth Millsite. This millsite was found to contain hazardous levels of lead. A cleanup of the mill tailings was initiated in summer 1983 and is expected to be completed during summer 1984. The channel requires monitoring for future migration of lead residues left from the cleanup process.

ACTION - Soil samples every 1-2 miles down the channel will be taken after each major runoff event to assess for increased levels of hazardous materials in the channel.

4. ISSUE - Sawmill Creek is channelized each year by the Little Lost Irrigation District. During summer 1981, the channel alteration was undertaken without the proper permits and under trespass on Public Lands. The channelization was accomplished with a bulldozer which was driven down the center of the channel. The outcome was a loss of channel silts and fines resulting in the dewatering of approximately 4-5 miles of stream on BLM and a large fish kill. Fish and Game sued the Irrigation District for this fish loss. Impacts to BLM were primarily loss of pool habitat and heavy bank erosion due to increased velocities.

ACTION - BLM will monitor the Irrigation District's efforts each year to encourage proper permits and proper channelization techniques. Irrigation water gains or losses from the action will be analyzed using the USGS gage installed by BLM/USGS personnel in spring 1983. There is some question of whether sufficient water is gain by this yearly action to warrant the resulting bank erosion and fishery impacts.

5. ISSUE - Unkle Ike Creek is undergoing development for a small hydroelectric plant. This will result in a loss of several miles of riparian habitat. Mitigation will require a series of exclosures to replace the riparian losses. Monitoring is needed to document riparian changes following the development.

ACTION - Photo points will be established on the existing stream channel below the diversion in Unkle Ike Creek and on each exclosure. Area range conservationists will help with photos.

6. ISSUE - A new fence on upper Horse Creek (roughly the upper 2 miles) should allow a reduced impact on the riparian zone. Previously, this area was grazed from May 1 to June 30 and November 16 to December 30 each year. At present two years out of three, grazing will occur for about 1 month between May and September. On the third year, no grazing will occur. The additional fence will allow reduced livestock access to the upper watershed.

ACTION - Photo points will be established on both the upper and lower riparian areas. The upper riparian will be surveyed by ocular survey methods at least every two years. Area range conservationists will help take photos.