I. General Information:

A. Location:

The allotment is approximately 25 miles northwest of Eureka in central Nevada and the Roberts Creek Grazing Unit. Major highways to the area are U. S. Highway 50 and Nevada State 51.

Stock Reduction

D. Base Property Qualifications and Livestock Management

The Roberts Creek Unit was adjudicated in December 1962. A range survey rated the allotment for dual use--affecting a 29% reduction. The grazing unit has a two month base property requirement.

The qualifications for the allotment are as follows:

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<tr>
<th>Class I Demand</th>
<th>Active</th>
<th>Suspended</th>
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<tbody>
<tr>
<td>Three-Bar Ranch</td>
<td>9362</td>
<td>6675</td>
</tr>
<tr>
<td>Horse Pasture</td>
<td>814</td>
<td>580</td>
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<tr>
<td>Roberts Creek Ranch</td>
<td>6872</td>
<td>4900</td>
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<tr>
<td>Alpha-Henderson Rch.</td>
<td>11695</td>
<td>8338</td>
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<td>AUMs</td>
<td>28743</td>
<td>20493</td>
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Most of the allotment is grazed with sheep and cattle much the same as before the Grazing District was formed (1951). The exception is the Three-Bar Ranch which grazed cattle during the priority years.

Present Livestock Operation

Livestock management is best described as a cow-calf and ewe-market lamb system. Today's normal operation is approximately: 9500 sheep, 1475 cattle and 35 horses. Under the objectives and guidelines of the management plan, livestock will be modified to permit approximately 5000 sheep and 3000 cattle; horses to be reduced.
Artificial habitat improvement
The more open sites contain an understory of big sage, low sage (Artemisia arbuscula), bluebunch wheatgrass (Agropyron spicatum), and other low level species described above.

(Highlands, 7200 to 10000 feet elevation)
Curl leaf mahogany (Cercocarpus ledifolius) is characteristic of the higher mountain sites. These stands are not dense and often occupy the more rugged, least grazed sites. Bitterbrush in the allotment is sparse. Shallow soils and steep slopes limit the grass cover on the higher slopes, although grass species are similar to midland areas.

Mountain meadows in the midlands and the highlands are potentially very productive. These meadows can be enlarged by removing the encroaching sagebrush and raising water levels; this should increase the favorable forbs and grasses needed for sheep and sage grouse.

Present range condition (midlands-highlands) is mostly fair for cattle (grass) and good for sheep (forbs). Grazing, or the lack of it, depending on the location, is causing a slowly declining trend. This is due to loss in vigor from selective annual grazing (creek bottoms) or no grazing from lack of water or general range condition (lowland).

2. Soil

On sites more selective by livestock or covered by juniper there is some erosion of the soil surface. In Roberts Creek, in 1966, erosion was accelerated from intensive summer storms. A system of grazing that will improve litter, vigor and ground cover will rapidly improve these conditions.
3. Mining

During the last three years mineral prospecting has been one of the dominating activities in the allotment. Prospecting has largely been centered in the area between the Three-Bar Ranch and the Roberts Creek drainage; mining claims cover much of this area. During 1968, more prospecting took place around Mount Hope. With the exception of a few fences Federal improvements over these areas will be minimal. Mining claimants are contacted during the job planning stage and the improvement designed for more compatible use.

4. Wildlife

Two approved habitat management plans are based upon this AMP. Range improvement will be coordinated with the Three-Bar Terrestrial Plan and the Roberts Mountain Aquatic Plan.

Wildlife most influenced by the grazing system will be sage grouse, deer and fish. Numerous small meadows in the draws of the foothills throughout the allotment provide one of the principle links in the life cycle of sage grouse. Brush clearing, combined with the grazing system on these native meadows, hold promise of much improvement in bird numbers.

Deer forage may have to be planted on the summer range if much improvement is necessary. Studies of population and feed requirements are lacking and more information will be necessary before any improvement program is adopted.

Fish will indirectly benefit through management of the watershed. Clear water for plant and animal life in the streams and loss scouring of stream courses from debris in the water will provide improved habitat for fish.
Fish and Game are striving to improve sage grouse habitat and improve the Coils Creek fisheries. These values, among those for livestock forage and watershed, are the principal reasons for treatment.

The grazing system will be implemented on the Three-Bar unit first as it commands early results by researchers, resource managers and the licensee. Improvements on the remaining allotment, such as water and allotment fencing necessary for normal grazing will be initiated early in the plan; most internal improvements here will be added later when analysis of the system begins and funds are available.

Land treatment at Three-Bar will initially consist of a spray in the Coils pasture. If additional fall forage is required to complement the Three-Bar system a chaining project should be planned for the Meadow pasture. A preliminary rodent and sage grouse survey should be made by the Bureau Sport Fisheries and Wildlife and the State Department of Fish and Game to aid in the layout of these projects. Often these isolated green areas have been seriously denuded by jackrabbits and mice; the design can often reduce this problem. Strutting and wintering grounds for sage grouse must be considered in this design.

Mountain meadow treatment will be coordinated with the Fish and Game Department. Tentative plans are to chain some sagebrush from these sites to relieve competition, maintaining sufficient bird cover along the edges. Data from the Willow Creek and Bates Mountain Meadow Projects (T. 20N., R. 44E.) (T. 20N, R. 46E.) should
This does not permit a similar conversion of cattle to sheep. A conversion will require that the additional cattle be used only on an implemented system. Conversion exceeding 50% must be by agreement.

No further reduction in qualifications will be made while the plan is in effect, although a negotiated, temporary adjustment may be necessary to establish treated sites.

**Maintenance of Projects**

Projects proposed for implementation of this management system will consider the multiple use benefits to be derived and maintenance proportionately shared among those activities.

All funded jobs for wildlife and recreation will be maintained by the Bureau of Land Management. Maintenance of livestock fences and water facilities will be the responsibility of the livestock operator.

**V. Range Studies**

The operator will be required to keep actual use records by pasture, on both numbers of livestock (sheep, cattle, horses) and periods of use. This is needed to measure effectiveness of the management system. A form (4412-8) is provided by the Bureau. He will provide the Bureau of Land Management with this information at the close of the grazing season.

It would assist the Bureau in evaluation of the grazing system if weight records on calves and lambs could be made and periodically supplied.
Study plots designed to study trend in key areas have been placed on the allotment. Photos will be taken during early June to permit better plant identification and pre-season conditions. Forage measurement will be done every three years following a full cycle of the grazing system. Annual rainfall is presently being recorded on the Three-Bar Unit under the title of the Coils Creek Hydrological Study.

Utilization studies will be initiated using the key forage plant method described in 4412 of the Manual. These measurements will be annually conducted in each pasture following the close of the grazing period.

 Supervision and Modification

A. Supervision: The allotment will be periodically inspected during the growing season by Bureau personnel and with the operator at the end of the growing season. The operator is encouraged to accompany the Bureau during the season to assist in the evaluation. Throughout the growing season, the operator will be responsible for his livestock and will manage them in accordance with the provisions of the plan.

B. Modification: The effectiveness of this plan will be measured in terms of the objectives. Evaluation of the AMP may indicate that the objectives are invalid. This plan should only be modified to the degree necessary to meet objectives; not for the single purpose of satisfying "Other Management Considerations". Any changes effecting
the Allotment Management Plan will be approved by
the District Manager.
Information from the studies will be used, along
with information from the operator, to help deter-
mine when changes, if any, are needed.