February 3, 1967

Memorandum

To: State Director, Montana

From: Director, DSC

Subject: Crago Brothers Allotment Management Plan

Following are comments and suggestions. As experience is gained, deficiencies can be corrected in developing new plans. Generally, this plan follows a very technical and detailed approach.

Section I General allotment information should consist of short statements outlining the condition of the range resources, describing use problems and conflicts. A general description or survey statement is sufficient. Particular information can be referenced to the source - for instance, climatological, soils, and vegetation data. Other agency classifications for soils and range sites may not be readily understandable by BLM personnel.

A description of wildlife habitat without mention of the units involved, populations, potential, and problems, is a lack of needed information. On the other hand, care must be taken not to involve a plan with details of livestock management not applicable to BLM. What are the economics within the allotment by land ownership? Also needed is a general description of the livestock operation. A minor grazing history is not necessary.

Existing land treatment projects are described without indicating the results of the treatment, the current condition of the projects, and their place in the management plan.

Section arises as to the classification of the planning unit. Was allotment management planning done on a proper priority basis in view of the fair-to-good condition of the Section 15 area? Priorities for development of allotment management plans are those identified for allotment evaluation, BLM Manual 4413.2. Also see the program guidance for forage production, BLM Manual 1603.
Section II Objectives are stated as to specific intent. However, the extent of increase or decrease in certain vegetation, for example, is not indicated. Principal deficiency of the objectives is the lack of reasons for such proposals. For instance, there is no indication why you show an increase of certain vegetation or a change of composition on certain sites, etc.

Section III Generally the design of the grazing system is very well done. Reference is made to one system (5 pasture) when another has been adopted, and this is confusing to the reader. Apparently there are some pastures not in the planned grazing system — these are being used for livestock management purposes. Is there any management plan for these pastures — how many and which pastures are involved?

Flexible management outlines require the number, kind, and class of livestock and the period of use, of a normal operation. Flexibility of one-third of the normal operation allows the operator a very wide discretion in his grazing use of the public lands. This appears to be excess latitude for this initial plan. The general carrying capacity of the allotment has not been noted. What are the intended limits of utilization on the area? In case of Section 3 licensees it would also be necessary to state the qualifications of the operator.

Section IV This is a very exciting section. A heavy workload is outlined for range studies. For instance, actual use data requires considerable livestock counting where, in fact, reports by the user should suffice. There are a large number of study sites. While livestock weights would be valuable information, they should not be required information from the user, nor would the Bureau be primarily concerned in this respect. The number of enclosures required is excessive unless a research approach is intended.

A stronger statement as to modification of the plan is necessary. Cancellation at the request of an allottee should not be used. Our long-range objective is to develop an allotment management plan for each use area, and management decisions will be made on the basis of these plans. Following full cooperative development of a plan, whenever possible, livestock operators' future objections should go through regular appeal procedure.

A statement at the end of the plan as to agreement is suggested. A plan should be binding upon heirs, executors, assigns and successors in interest.

Proposed land treatment projects and improvements should be justified. Estimated cost for developments needs to be indicated.
The district is to be complimented on a professional approach to allotment management planning. Reduction of detail to more concise statements will enhance the plan's value as an "action" document.

It is felt that the modifications as outlined above will provide the type of plan needed to initiate a meaningful resource management program.

Enclosure

Allotment Mgmt Plan

CPMcGRILLIS:vlj
SCRF
S&T RF
February 13, 1967

Mr. A. L. Hormay  
Pacific Southwest Forest & Range  
Experiment Station  
P. O. Box 245  
Berkeley, California  94701

Dear Mr. Hormay:

You may be aware of our misfortune in losing Larry White to the ARS in Sidney, Montana. We are equally fortunate in obtaining the services of Joe Wichman to replace him in Belle Fourche, South Dakota. Joe will be responsible for the maintenance and evaluation of the Crago Bros. restoration grazing system initiated by Larry White.

You will recall that during your visit and tour of the Crago Bros. Ranch last summer, it was agreed to furnish you utilization, precipitation and actual use data at the end of the grazing season. From this you would help us with recommended stocking rate adjustments for next year.

Attached is a summary of this data for your review and consideration. Your guidance is truly appreciated in this effort.

Sincerely yours,

Donald E. Nelson  
Acting District Manager

cc: transmit only:  
3D, Montana  
DSC - ATTN 712a
Crago Rest Rotation Utilization Studies for 1966

The 1966 growing season began 10 to 15 days later than normal. This is attributed to the below normal temperatures and precipitation during April. Precipitation during April, May and June was only 63% of normal. (See chart on attachment #1). This 3 month period is considered the critical growing season in the area. 23% more than normal precipitation was received during July, August and September.

The late growing season in conjunction with below normal spring rainfall resulted in less than normal forage production during early summer. Many of the forage species were drying up and appeared dormant. There were very few seed stalks produced on any of the species.

Then the July rains came. The above normal rainfall resulted in lush green growth on the forage species in mid-August. Many new plant shoots appeared on western wheatgrass especially in the ungrazed areas. The overall result was forage production somewhat below normal.

The paired plot and stem count study methods were used to establish guidelines for determining the utilization in the different pastures. The paired plot readings were not considered to be accurate but were correlated with the stem counts to arrive at a utilization estimate.

Western wheatgrass, which makes up 90% of the forage, was studied to determine utilization. The following are brief summaries of the utilization for each of the four pastures that were grazed during the spring, summer and fall of 1966.

Pasture No. 1 (See attachment #2) Utilization studies were conducted on pasture No. 1 on September 10th. 62% of all western wheatgrass stems had been grazed up to that date. The utilization level was determined to be between 43% and 53%.

A total of 1074* animal unit months of forage had been removed from the allotment by the 10th. This is equivalent to a stocking rate of 2.8 acres/AUM.

The gate between this pasture and pasture No. 6 was opened on August 28 to allow the cattle to travel freely into pasture No. 6. Some cattle remained in pasture No. 1 throughout the fall. A storm hit on November 10 causing most of the cattle to move back into pasture No. 1. They were all removed on November 16. A total of 1256 AUMs forage was taken from pasture No. 1 during 1966. This is equivalent to a stocking rate of 2.5 Acres/AUM.

Pasture No. 3 In pasture No. 3 a total of 832 AUMs of forage had been removed at the reading date on September 2nd. This is equivalent to 2.5 Acres/AUM. 58% of the western wheatgrass stems were grazed which was figured to be between 35 and 45% utilization.

*Actual Use studies attachment #4.
The cattle had been removed from the allotment on August 17 and driven into pasture No. 4. It was at this time the Pulmonary Emphysema broke out. On September 12 the gate between pasture No. 4 and pasture No. 3 was reopened to allow the cattle to drift back into pasture No. 3. The cattle were removed October 5. 844 AUMs of forage were removed during 1966. This is equivalent to 2.5 Acres/AUM.

It should be noted this pasture is 865 acres smaller than planned. The fence is going to be changed to make this pasture comparable in size with the others in the system.

Pasture No. 4
Pasture No. 4 was not studied until December 21. There had been 4 inches of snow that melted prior to the utilization check. This may have affected the accuracy of the measurements.

The stem counts showed only 22% of the stems were grazed but this does not seem to be a true picture. When the cattle were driven into the pasture on August 17, the grass in the stream bottoms was green and lush. The cattle tended to concentrate on these bottoms. They grazed and regrazed these areas throughout the fall. The Seven Mile Creek runs through this pasture and its bottom makes up a sizeable acreage.

It was estimated that utilization was between 25% and 35% for the pasture. 904 AUMs of forage were taken from the pasture which is equivalent to the rate of 4.4 Acres/AUM. Also, it should be noted this pasture is approximately 1,000 acres larger than the other pastures. The fence line was not changed for the 1966 season but will be for 1967.

Pasture No. 6
Utilization checks were also completed on pasture No. 6 December 21. The studies show 35% of the western wheatgrass stems were grazed. A similar pattern of grazing occurred here as in pasture No. 4. The utilization level was determined to be between 25 and 35%. 656 AUMs of forage were used which is equivalent to the stocking rate of 4.6 Acres/AUM.

312 cattle are being grazed in pasture No. 2 during the winter. They are being fed cake supplement every day. Plans are to remove these cattle prior to April 1, 1967.

The 1967 grazing plan calls for the cattle to graze in pasture No. 2 and No. 6 beginning May 15. They will then moved into pastures No. 3 and No. 5 on September 1.

Two fence locations are to be changed during 1967 so that all pastures in the system will be of comparable size. The changes and time of changes are noted on attachment #3.

The operators plan to increase their cattle numbers to approximately 700 head for the 1967 season.
<table>
<thead>
<tr>
<th>MONTH</th>
<th>Temperature</th>
<th>Precipitation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1966* 1%</td>
<td>Normal Average*</td>
</tr>
<tr>
<td>April</td>
<td>38.8 36.2</td>
<td>43.2</td>
</tr>
<tr>
<td>May</td>
<td>55.5 55.5</td>
<td>54.7</td>
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<tr>
<td>June</td>
<td>64.6 64.3</td>
<td>63.6</td>
</tr>
<tr>
<td>July</td>
<td>76.5 76.5</td>
<td>72.1</td>
</tr>
<tr>
<td>August</td>
<td>65.7 66.0</td>
<td>67.4</td>
</tr>
<tr>
<td>September</td>
<td>61.8 62.0</td>
<td>57.0</td>
</tr>
<tr>
<td>October</td>
<td>47.0 46.0</td>
<td>50.1</td>
</tr>
<tr>
<td>November</td>
<td>27.4 reading</td>
<td>31.8</td>
</tr>
</tbody>
</table>

*Readings taken from station 8 miles west of allotment.

**Readings taken from Center of the National Station 9 miles south of rotation system.
1967 Grazing Plan

Note: All areas between #2 and #3 will be used both summer and fall because of fence line change.

Fence to be removed fall 1967.

Fence to be constructed fall 1967.

Fence to be constructed spring 1967.

Pasture boundaries as to be used in 1967.

#2

Use berlins May 15

2970 acres

#3

Use berlins Sept. 1

2140 acres

#1

#4

#5

Use berlins

2980 acres

#6

Use berlins

2223 acres

May 15

1967

North

1/2 mile

1/4 mile

1/8 mile

1/16 mile

1967

1968

1969
<table>
<thead>
<tr>
<th>NO.</th>
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<th>AUNs</th>
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<td>Cattle</td>
<td>5/22 - 5/25</td>
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<tr>
<td>139</td>
<td>&quot;</td>
<td>5/26</td>
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<td>215</td>
<td>&quot;</td>
<td>5/27</td>
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<tr>
<td>246</td>
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<td>5/28 - 5/29</td>
<td>16</td>
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<tr>
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<td>&quot;</td>
<td>5/30 - 6/19</td>
<td>204</td>
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<tr>
<td>305</td>
<td>1/</td>
<td>6/20 - 8/27</td>
<td>701</td>
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<tr>
<td>286</td>
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<td>8/28 - 9/14</td>
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<tr>
<td>255</td>
<td>&quot;</td>
<td>9/15 - 9/19</td>
<td>43</td>
</tr>
<tr>
<td>186</td>
<td>&quot;</td>
<td>9/20 - 9/21</td>
<td>12</td>
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<tr>
<td>117</td>
<td>&quot;</td>
<td>9/22 - 9/23</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
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<td>11/3 - 11/9</td>
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<tr>
<td>249</td>
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<td>11/10/11/16</td>
<td>58</td>
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</table>

1/ Added 13 bulls

Attachment #4
MILES CITY DISTRICT

ANNUAL RECORD OF ACTUAL GRAZING USE

RANCH UNIT: CRAGO BROTHERS

ALLOTMENT: MULECREEK # 3

LICENSING YEAR: 1966

1. Actual use this year (computed at 100%):

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<th>CLASS</th>
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<th>AUMa</th>
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<tr>
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<td>6</td>
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<tr>
<td>108</td>
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<td>5/28 - 5/29</td>
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<td>5/30 - 5/31</td>
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<td>6/1 - 6/14</td>
<td>112</td>
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<tr>
<td>250</td>
<td>&quot;</td>
<td>6/15 -</td>
<td>8</td>
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<tr>
<td>258</td>
<td>&quot;</td>
<td>6/16 - 6/19</td>
<td>34</td>
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<td>6/20 -</td>
<td>11</td>
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<td>6/21 - 6/26</td>
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<td>332</td>
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<td>8/9 - 8/16</td>
<td>89</td>
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<tr>
<td>2</td>
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<td>9/15 - 9/21</td>
<td>5</td>
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<tr>
<td>17</td>
<td>&quot;</td>
<td>9/22 - 9/28</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>&quot;</td>
<td>9/29 - 10/5</td>
<td>3</td>
</tr>
</tbody>
</table>

1/ Added 8 yearlings
2/ Added 14 bulls
3/ Added 5 horses
4/ Took out 5 horses

Total: 842
MILES CITY DISTRICT

ANNUAL RECORD OF ACTUAL GRAZING USE

RANCH UNIT: CRAGO BROTHERS

ALLEOTMENT: Beckman #4

LICENSING YEAR: 1966

1. Actual use this year (computed at 100%):

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<thead>
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<tr>
<td>323</td>
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<td>8/19 - 8/22</td>
<td>43</td>
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<tr>
<td>318</td>
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<td>8/23 - 8/24</td>
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<tr>
<td>312</td>
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<td>8/25 - 8/28</td>
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<td>308</td>
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<td>9/15 - 9/21</td>
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</table>
MILES CITY DISTRICT

ANNUAL RECORD OF ACTUAL GRAZING USE

RANCH UNIT: CRAGO BROTHERS

ALLOTMENT: North Pasture #6

LICENSING YEAR: 1966

1. Actual use this year (computed at 100):

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<td>9/20 - 9/21</td>
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<td>188</td>
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<td>9/22 - 9/23</td>
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<tr>
<td>305</td>
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<td>9/24 - 10/14</td>
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</table>

657
February 16, 1967

Dear Gus:

We have been trying to track down someone who left a Sunbeam razor here. Edith and I are not sure when because she had a girl do the upstairs cleaning, and last week our son-in-law mentioned the Sunbeam.

So we are sending a letter to several men who have stayed upstairs during the last couple of months to see if someone, too, is wondering where the devil they could have left their razor. If it is yours, let us know here to send it and we will get it out P.D.Q.

We are wondering just what approach to make this coming season with our 5 pastures. We will have the main cow herd of about 530 with their calves (we hope). We will have 335 1st calf heifers that we would like to keep separate during calving and then at least thru the first 30 days of breeding. This would take us up through July 20th. Then we will have about 200 head of yr1s to breed and try to keep separate all the way through.

If you have any suggestions we would appreciate them. We can keep the 200 yr1s in one of smaller pastures, but we can't keep the 335 separate unless we change part of the rotation program. We are enclosing the pasture sheets showing the actual 1966 use and the proposed future use.

Best regards,

[Signature]
February 20, 1967

AIRMAIL

Memorandum

To: Director, BIM
    Attention: Glen G. Fulcher, Range Staff

From: A. L. Hormay, Range Conservationist

Subject: Range Programs

The enclosed suggestion memo is self-explanatory. It is an outgrowth of discussions with George Lee in Berkeley, February 8-10, 1967. George asked for a photograph of myself for use in connection with a possible writeup of my transfer. Use as you see fit. I am also enclosing a list of research projects requested by George.

Enclosures
SUGGESTION

Instruction Memorandum No. ______

To all SD's, DM's, SCD's

From: Director

Subj: Rest-rotation Grazing Test Program

With instruction memorandum 64-60, December 17, 1964, the Bureau started a field check of rest-rotation grazing. The Bureau is interested in this grazing system from the standpoint of livestock production, but more importantly as a tool that shows much promise in multiple use land management. The Bureau undertook the test program to get first-hand information on the effectiveness and practicability of rest-rotation grazing under Bureau conditions. The program calls for application of the system on at least one allotment in each grazing district in the western range states by July 1966.

The status of the program, based on information from Mr. Hormay's files, is outlined in the attached table. Forty-four of the 51 districts involved in the program have submitted plans for review by Mr. Hormay. Twenty-eight allotments are now in actual operation. Some districts have submitted more than one plan. Mr. Hormay has reviewed and offered suggestions on a total of 64 plans. Additional information is needed from the field on certain facets of the program in order that we may see more clearly where the program stands. Please provide the information called for in the attached form and send it to Mr. Hormay in Berkeley.
It is essential, of course, that rest-rotation grazing and not some other similar grazing system is applied on the test allotments. To insure this, as you know, we have been having Mr. Hormay, originator of rest-rotation grazing, review the allotment plans and offer suggestions on their application. Any major changes from a plan suggested by Mr. Hormay should be discussed with him before they are put into effect.

Many grazing practices are applied differently under rest-rotation grazing than under conventional grazing and are contrary to Bureau policy. However, in order to check rest-rotation grazing adequately, Bureau standards will be relaxed on the test allotments. Cooperating permittees should be fully informed on the program and reasons for deviation from standard practices in these special cases.

Mr. Hormay is writing up a procedure for appraising and reporting results of rest-rotation grazing annually. He plans to have it ready by mid-summer. If the procedure is adopted, brief training, probably one day, in its use will be needed.

As you know, Mr. Hormay is now a full-time employee of the Bureau. He is attached to the range staff in Washington, D. C. His main duties as in the past will be to inform Bureau people and others on rest-rotation grazing and to provide counsel and advise on range management generally. Mr. Hormay will continue to spend some of his time on research, mainly writing up results of his past work on browse and grazing management. His office is at the Forest Service experiment
station in Berkeley, California. Here he is favorably situated to serve the states where most of his work is located and to get out his research results on rest-rotation grazing. Mr. Hormay is at the disposal of the states. Contact him directly for any services he can provide. His address is Range Conservationist, Bureau of Land Management, P. O. Box 245, Berkeley, California, 94701. Telephone: Mr. Hormay's office, FTS 415-841-3436 or the Pacific Southwest Forest and Range Experiment Station, 415-841-5121.

Plans for holding range training courses in Salt Lake City in February 1967 have changed with Mr. Hormay's transfer to the Bureau. We are sorry we did not inform you earlier. The Bureau is anxious to see as many as possible of its employees concerned with resource management have the benefit of Mr. Hormay's week-long training course on rest-rotation management. This course is best handled in and at the pleasure of the states. Mr. Hormay can effectively handle 50 to 75 trainees at a session.
STATUS OF REST-ROTATION GRAZING ALLOTMENTS

Supplemental information on each rest-rotation allotment:

1. Date of start of first grazing season ____________________
   (Actual date for allotments under management. Planned date for
   allotments not yet in operation.)

2. Is the form of management in effect or to be applied the same as
   the one suggested by Mr. Hormay? Yes ___ No ____. If not
   supply the following information:
   a. Diagram of grazing formula in use or planned.
   b. Map showing pasture layout.
   c. Map diagrams showing movement of livestock between
      pastures for one grazing cycle.

In cases where rest-rotation grazing has been in effect for one year or
more, please comment briefly on the prospects, merits or deficiencies of
the system. It is a little too early to fully judge the system, but your
comments will be helpful in pointing up future grazing training programs.
RESEARCH PROJECTS - RANGE MANAGEMENT

Vegetation

1. Growth and development of range plants. Field studies showing relationships between species on given sites in relation to weather factors.
   - Shoot
   - Roots and rhizomes
   - Seeds
   - Seedlings

2. Effect of defoliation on growth (and regrowth) yield, and seed production of important forage plants in relation to plant growth stages, site conditions and weather factors. Field studies.


4. Herbage production per acre by vegetation types and sites.
   Compilation of data from land managing agencies and other sources.

5. Correlation flower and flower stalk production with seed yield.
   Field.

6. Correlation between crown size, number and length of shoots (twigs, flower stalks, leaves, etc.) and herbage yield. Field.
Livestock

1. Effect of moving and handling livestock on the range on weight gains.

2. Weight of herbage intake by various kinds of age classes of animals. Compilation job. For defining animal unit.
Memorandum

To: SD-Utah

From: Director

Subject: Grazing Management Plans - Kaiparowits and Alveys Wash Allotments

The following information has been taken from the December 1966, monthly report of Range Management Specialist, Gus Horday, as a result of his October visit to the Kanab District.

"Kaiparowits and Alveys Wash allotments. While in the Kanab District, Utah, on October 20, 1966, I had an opportunity to inquire into the Kaiparowits Plateau allotments and to visit the Alveys Wash allotment which lies a few miles northwest of the Kaiparowits Unit and just southwest of the town of Escalante. I did not get to the top of the Kaiparowits Plateau because there is no road to the top and because I did not have time to arrange other means of gaining access. However, from color photographs and descriptions furnished by four members of the district manager's staff and by Grant Rogers (State Office), I get a fairly good idea of the range situation on top.

There are two allotments, Mudhole and Lake, on the Plateau. I feel satisfied that both can be put under rest-rotation grazing management to advantage and without reducing livestock numbers. I visualize a 4-unit plan for the northerly Mudhole allotment and a 2- or 3-unit plan for the southerly Lake allotment. Both can probably be developed with less than 10 miles of fence and some additional water. Whether cultural work is needed or justified should await results of grazing management. Materials needed for fencing and water developments probably can be packed up the Plateau by horseback or lifted by helicopter.

Part of the day spent in the vicinity of the Kaiparowits Plateau was used in appraising the Alveys Wash allotment on which the Bureau is considering livestock reduction. This area appears to lend itself to a 3-unit rest-rotation plan. This number of units can probably be established with 3 or 4 miles of fence. The area is heavily deteriorated but rest-rotation grazing probably can be started with the same number of livestock that have been grazed on the range for the last several years.
I would be glad to help develop management plans for the Keiparowits and Alveya Wash areas."

This information is passed on to you for your consideration in designing your grazing management plan for these areas. Mr. Hormay's services are available, if his assistance is desired.

cc:
Mr. A. L. Hormay
Pacific Southwest Station
1960 Addison Street
P. O. Box 245
Berkeley, California 94704
February 21, 1967

J. N. Igo, President
Cokeville Land and Livestock Company, Inc.
Cokeville, Wyoming 83114

Dear Jack:

Yes, the Sunbeam is mine. Could not figure out where I had left it. I am getting forgetful it seems. Left a transistor radio somewhere earlier this summer. Or maybe I just don't have time to keep track of such small items. The razor is worn anyway. Please throw it away. I have purchased another. Thanks for your thoughtfulness.

About your livestock problem, provision might have been made in original planning for handling more than one group of animals as you describe. However, I think something can still be worked out under the present pasture setup. The district, of course, is the one to decide.

The following is a possibility and I can put it only generally because of lack of detail information. An adjustment of the grazing formula is needed. The present and a revised formula are shown on the attached sheet. Under your site conditions, the range should still respond satisfactorily under the suggested formula.

The grazing plan under this formula could operate as follows in 1967. Put the 200 yearlings in pasture 1 and the 335 calving heifers in pasture 3 at the beginning of the season--May 1. Graze the yearlings in pasture 1 through the season--to September 30. At flowering time--June 25 or thereabouts--open gates between pastures 2 and 3 and at seed-ripe time between pastures 3 and 4 to provide grazing for the cows and calves. During November and December graze holdover cattle in pastures 3 and 4.

I am sending a copy of this correspondence to district manager Franks for his information. Good luck in your program.

Sincerely yours,

A. L. Hormay
Range Conservationist

cc: Franks
Bear River RCA

Grazing Formulæ

Present

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Flowering & Seedripc
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May June July Aug Sept Oct Nov Dec

1967

Pasture Nos.

2 3 4 5 1

Feb 21, 1967

A. Hormay

Bark, Calif.
Steward & Morrissey
QUALITY HEREFORD FEEDER CATTLE
c/o Keating Stage
Baker, Oregon 97814
February 23, 1967

Mr. A. L. Hormay
Pacific S.W. Forest & Range Experiment Sta.
P. O. Box 245
Berkeley, California 94701

Dear Mr. Hormay:

When you were here last September to talk with the B.L.M. staff and advisory board members and range users you inspired everyone with your concept of range management. I have since discussed your rest-rotation process and conclusions with several groups and many stockmen in our community. They would like to hear it from you.

Could you address the Baker County Livestock Association the evening of May 24? Would suggest same approach – with pictures which you used with the B.L.M. group.

The following day, Thursday May 25, we would like to take you on a tour of the Goose Creek Forest Allotment, where we contemplate setting up a four unit grazing schedule (we now have three units and it is not working). At our annual meeting in January with our forest ranger and the grazing specialist from the Supervisor's office, they agreed to join the permitees and you on such a study tour. In fact, these forest men encouraged me to try to set it up with you. I have not talked to John Rogers, the Wallowa-Whitman supervisor yet, but will do so soon. Time permitting, we would also like to go look at the Pritchard Creek B.L.M. allotment, which we saw with you in September.

Are there any expenses which we should endeavor to meet or guarantee to cover your trip here?

I hope this deal can be put together, because we have many operators who are in trouble on range problems.

Sincerely,

Robert J. Steward

RJS
Utilization Chart  Bobs Allotment
Belle Fourche S.D.

1966 Grazing Season

Forage production was normal 90% of normal?

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May 15 – Dec 15

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<td>439780 = 36% use Ave</td>
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Summer season 7 months May 15 - Dec 15

Ave AUMs per pasture 915

" percent use 36

Total AUMs use 4 pastures 3659

AUMs for 7 months 523

Ave percent use (coli) 600 head = 41%

coli 700 head 48%

Anticipated use in pasture 2

312 head 3.5 months = 10 920 AUMs 915 = 43% AUM

Ave pasture 2 3835 acres 30 = 79% 48 x 79 = 34%

Use adjusted for size of pasture 400 head = 170 = 43.6% 466 head = 51.0%
Memorandum

To: District Manager, Miles City

From: A. L. Hormay, Range Conservationist

Subject: Range Programs

February 27, 1967

Thanks for the information on the Crago Brothers allotment. It looks like there was adequate capacity on the allotment in 1966. My calculations indicate that average forage use in the four summer pastures was 36 percent. This resulted from a total of 3559 AUMs use or from use by the equivalent of 523 AUs for the seven-month season, May 15 - December 15. Had 600 AUs (permitted numbers) been grazed utilization would have been on the order of 41 percent. Use by 700 head would have amounted to 48 percent.

Anticipated use in pasture 2 by 312 head for 3.5 months (December 15 to April 1) calculates out 34 percent. Use by permitted numbers, 400 head, would have been 44 percent and by 466 head, 51 percent.

These calculations are based on somewhat below average forage production. Considering this and assuming the utilization estimates made in the field represent volume or weight of total available used, there appears to be ample capacity for 700 head in the average year. Approximately 50 percent of the yearly production of forage in the 5 grazed fields and 58 percent of the production on the whole allotment are left on the ground under this stocking rate. This amount of forage reserves and vegetation cover should be maintained in the average year until on-the-ground results show more can be used.

cc: SD, Montana
    DSC - ATTN 712a

A. L. Hormay
February 27, 1967

AIRMAli

Memorandum

To: G. D. Fulcher, BLM, Wash., D.C.

From: A. L. Hornay, Range Conservationist

Subject: [Redacted]

I spent most of my time during February on the following activities:

1. Writing up a method of appraising results under rest-rotation grazing.

2. Discussing range matters with George Leg in Berkeley. Prepared and sent report on the status of rest-rotation allotments to range office, Washington, D.C.

3. Discussed the Massacre Lake allotment, Nevada and another allotment near Likely, California from the Susanville district, and the Southcott Lease from the Riverside district with Don Dimock of the Sacramento office.

4. Reviewed the Big Gumbo and Antelope Butte allotments from the Little Beaver Unit, North Dakota on the Miles City district, Montana. Replied to other correspondence from the Miles City district on the grazing capacity of the Crago Brothers allotment.

I got the manuscript of the range training guide back from the Station editor. I hope to review it, have it typed, and send it to the Forest Service, Washington, D.C. before the end of March. I plan to attend the California State Advisory Board meeting in Sacramento, March 1, at the invitation of State Director Penny. Also, I will spend a day or two at the Bureau's wildlife workshop in San Francisco the week of March 6. I will continue to work on the range appraisal procedure at the first opportunity.

Enclosures
For Journal of Range Management and
California Section News Letter

August L. "Gus" Hormay has transferred to the Bureau of Land Management after 36 years with the Forest Service. Gus spent his entire Forest Service career in range research at the California (now Pacific Southwest) Forest and Range Experiment Station, Berkeley, California. A 1930 Forestry graduate of the University of California, he also completed a year of post-graduate studies in plant and soil sciences there.

Gus began working at the Experiment Station in 1931, when range research was first started there. M. W. Talbot, Fred G. Renner, and Gus constituted the first range staff. Until 1935, Gus worked mainly on annual-type range problems. Then he was placed in charge of the perennial-type mountain range project. He established the Burgess Spring Experimental Range and set up a course of studies aimed at developing proper grazing management methods for perennial-type ranges.

This work led to the development of the rest-rotation grazing system. Gus outlined the theory of the system in 1943 and started a pilot study of it on the Harvey Valley cattle allotment on the
Lassen National Forest in 1952. The system has proved to be sound and practical and is now being used at an accelerated rate throughout the West. In 1957 Gus received a Superior Service Award from the U. S. Department of Agriculture for developing the system.

In addition to his work on grazing management, Gus has carried out several other studies and special assignments. In 1937 and 1938, he headed the Western Range Survey in California. In 1940 he started studies on bitterbrush which intensified interest in browse research and stimulated development of browse restoration practices throughout the West. He was instrumental in establishing the first cooperative Federal Aid (Pitman-Robertson) browse restoration project in the West in 1952 between the Experiment Station and the California Department of Fish and Game. He directed the project until 1957. Similar projects were developed in other states soon thereafter.

From 1941 to 1945 Gus worked closely with the Agricultural Adjustment Administration on range conservation conformance practices and developed utilization standards for annual-type ranges. In 1945 he started the first research by the Station on artificial revegetation of perennial-type ranges. This work was transferred to the Agricultural Research Service in 1946. From 1956 to 1959 Gus was in charge of the Forest Service research center in Sacaville, Calif.
Since 1960 Gus has spent much of his time explaining the principles of rest-rotation grazing to a broad array of interests concerned with range and wildland management. He has conducted several intensive week-long training courses on the subject for the Forest Service and the Bureau of Land Management. More than 600 trainees have attended his courses.

Gus' job with the Bureau is that of range management advisor. He will continue to spend a portion of his time on research, mainly writing up results of several long-standing research projects—most of which have a bearing on grazing management. Gus is attached to the BLM's division of range management in Washington, D.C. Most of his work is in the Western States, however, so he is head-quartered in the field. His office will continue to be at the Forest Service Experiment Station in Berkeley.
Mr. A. L. Hormay
Pacific S. W. Forest & Range Experiment Sta.
P. O. Box 245
Berkeley, California 94701

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RJS