

BIOGRAPHICAL SKETCH

AUGUST L. HORMAY

AUGUST L. "GUS" HORMAY has pursued a public service career with the Forest Service, U.S. Department of Agriculture, and the Bureau of Land Management, U.S. Department of Interior, totaling more than 50 years. His work has centered on developing and promoting land-management practices that will produce the highest yield and quality of renewable resources without impairing land productivity or degrading the environment.

Gus Hormay was born in San Francisco, California, on May 10, 1907. He was graduated from the University of California, Berkeley, in 1930, with a bachelor's degree in forestry, and completed a year of post-graduate studies in basic physical and biological sciences to better prepare himself for work in the broader field of land management.

He joined the Forest Service in 1931, and spent the next 36 years in research on range ecology and management with the California (now Pacific Southwest) Forest and Range Experiment Station, headquartered at Berkeley. In 1966, he transferred to the Bureau of Land Management as a range management advisor.

While with the Forest Service he developed the concept of rest-rotation grazing--a type of grazing that is designed to promote and maintain the growth of vegetation under livestock use. He crystalized his ideas in 1948 and immediately pressed for practical tests of the effectiveness of this type of grazing. The first test was made on the Harvey Valley cattle allotment on the Lassen National Forest in California in 1952. The concept proved sound and practical and is being applied on ranges throughout the west at an accelerating rate.

Gus has been recognized nationally for his work. In 1957 he received a Superior Service Award from the U.S. Department of Agriculture, and in 1971, a Distinguished Service Award from the U.S. Department of Interior. The citation for the 1971 Award (copy attached) reads in part: "Due to his exceptional skills and ability 'Gus' Hormay is eminently successful as a researcher and advisor . . . Most outstanding has been his development of a scientific system of rest-rotation grazing management . . . His rest-rotation principles will have a direct and important bearing on the quality of our environment . . . No other man has currently contributed as much to promoting proper use and management of the total natural rangeland environment, both public and private . . . Mr. Hormay has motivated technicians, stockmen and conservationists alike to utilize expertise in designing management practices."

In 1972 he received an Outstanding Achievement and Service Award from the Society for Range Management for "his research accomplishments and for his practical and effective on-the-ground training of land managers in the principles of grazing management . . . and rational uses of the country's natural resources."

Gus holds membership in a number of professional and other organizations devoted to natural resources including American Association for Advancement

of Science, American Institute of Biological Sciences, California Academy of Sciences, California Botanical Society, Cousteau Society, Ecological Society of America, Friends of the Earth, National Audubon Society, National Wildlife Federation, Sierra Club, Society for Range Management, Society of American Foresters and Wilderness Society.

Gus was retired from regular government service in 1977 because of age, but he has continued to carry on with his work since that time. He is back with the Forest Service in Berkeley as a volunteer, completing studies he set aside because of the press of other work while he was still in service. As a consultant he is continuing to advise interested parties on sound grazing and land management practices. When asked when he is really going to retire he replies -- "When I expire."

September 1980

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Boise, Idaho 83705
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SHERIDAN DISTRICT
BEAVERHEAD NF
SEP 4 1990

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Mr. Ron Stellingwerf
USDA Forest Service
Sheridan Ranger District
P.O box 428
Sheridan, MT 59749

Dear Mr. Stellingwerf:

I appreciate the opportunity to review the cattle management operations in the ^{Long} ~~Pole~~ Creek Allotment located south of the headwaters of the Ruby River. I found the allotment interesting and badly in need of improvement. I will make my comments to you under separate headings to help me clarify my interpretations.

Present Applied Grazing Strategy

The present applied grazing strategy is four-pasture rest rotation. At the time Mr. Hormay set up the new grazing strategy on this allotment, this change in management was a great step forward. The reason was that the new rest rotation strategy probably replaced a season-long-continuous grazing strategy that was the main culprit in damaging so much of the west.

At the time the original rest rotation four-pasture strategy was designed, riverine riparian systems were classified as "sacrifice areas". Both the Forest Service and Mr. Hormay worked under this assumption at that time. Mr. Hormay was designing a

strategy to improve the uplands. His objectives were well met as the uplands are in good condition.

At the time Mr. Hormay assisted in the management conversion, the uplands were undoubtedly in an extreme degraded condition. The streams still reflect this past condition. Rest rotation grazing is usually only successful on those riverine riparian habitats that have stream channels that are completely armored with vigorous vegetation the year around. The ^{long} Poie Creek allotment streams do not fit this description.

The four-pasture rest rotation strategy is resulting in understocking and over grazing. This is caused by almost complete lack of control of animal distribution as it pertains to habitat types. In past years, animal control in most rest rotation strategies was gained by beating out the riparian bottoms until the cattle were forced to go to the uplands to feed.

The present strategy needs to be changed if stream riparian systems are to be improved. I will make some suggestions later. Changing to a modified strategy will result in proper grazing, make cattle management much easier for the permittee, and still retain the present stocking levels.

Riding As A Management Tool

I heard a lot of discussion on using riding as a tool to gain needed animal distribution. I have found that riding only works when it is used in the process of training the herd. If riding is only done on occasions to move cattle out of the riparian habitats

they soon return to the riparian zone. Usually this type of riding only takes gain off both the cows and calves. It is critical that calves each year attain a desired weight before sale time.

Riding has to be done on a daily basis and done for the sole purpose of training the herd. The herd must learn to stay in certain locations for certain periods of time. It is a rigorous endeavor, and few riders are capable of training a herd. Unless the herd is trained and kept trained year after year I see little chance of any type of riding being a successful management strategy. I would advise that you go to a strategy that controls animal distribution without the need for riding.

Salting

Another strategy discussed was salting. This can be helpful, but past work has shown that off-site salting has little effect on keeping cattle out of riparian zones. What control is gained on animal distribution is only temporary. Of course salting must be done in the uplands, but it is not in any way a solution to the present problems.

Stream and Riparian Condition

Streams within the Long Creek and Lone Butte Pastures are badly deteriorated. Long Creek is over-widened, lost much of its original depth, and has developed a concave shape rather than its original rectangular form. Most of the point bars are receiving high hoof trampling. Willow seedlings are not allowed to survive

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in sufficient numbers. Much of this deterioration occurred in the early 1900s and continued to the early 1960s. The presently used grazing strategy has not and will not rehabilitate the past abuse on the streams. Concentration of cattle in the riparian zone needs to be eliminated immediately. You have the necessary mix of riparian vegetation species present on the allotment to respond to good management. They only need to be released to gain status and vigor.

Your decision to move cattle from the Long Creek and Lone Butte pastures early this year is sound. With key area streambanks receiving heavy trampling of 40% (I observed 60% in some areas and if you look at the streambanks over time they have had 100% of their streambanks trampled) something had to be done. Use on key riparian plant species was too heavy. The riverine riparian system was beginning to take damage that it could not rehabilitate under the present strategy.

Much of the willow was being hedged too heavily and the carexes (especially Nebraska sedge) were also heavily used. Willow within the riparian zone is being held in the small youthful state. This is restricting the ability of the stream to handle the sediments needed to gain channel and bank form. Larger wood is needed for the valley and channel maintenance processes. Willow species have been changed by the past cattle management from large willows that build good pools and stable banks to small willows that have a hard time building streambank stability (e.g., sandbar and wolfia willow). Beaver are having a hard time in Long Creek

*what date
the willow
trampling*

*The stream is
very narrow
and the banks
are very erodible
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because of low food abundance, but probably more important, the lack of wood large to build stable dams. The ability of willow to respond to improved management is already demonstrated in the new exclosure you had constructed in the south end of the Lone Butte Pasture.

It would be a mistake to re-enter to Long Creek and Lone Butte pastures this year in an attempt to keep cattle on until the designated time to go to winter pastures. I would recommend that if the Pole Creek Pasture can not carry the cattle until the end of the grazing season that some method be devised to keep them in this pasture. This pasture can take more stress without as much riparian damage as either the Long Creek or Lone Butte Pastures. One way to keep cattle longer in the Pole Creek Pasture would be to electric circle the large western upland part of the pasture and keep the cattle in these uplands until time to go home. If you continue to use your rested pastures, there is no chance that you will even maintain the existing conditions in the riparian-stream habitat.

The present 40% vegetation use standard year after year in the riparian zone is too high to result in rehabilitation of the streams. Streams within the allotment are out of component synchronization. Because Long Creek is a long term responder to changes in management it will take long periods of time for the stream to attain its potential to produce fish. The present fish population is only a fraction of its natural potential. Most of the first and second order streams, however, are quick responders

and you will see results occur rapidly when better management is applied.

Proposed Solution

I suggest that you modify the present four-pasture rest rotation strategy to a four-pasture rest rotation riparian pasture insert strategy. Thus, the permittee can continue to graze cattle under a strategy that he is used to and will feel comfortable with. This also applies to the grazing method for the four riparian pasture inserts. I suggest that you eliminate the new enclosure on the south end of the Long Butte Pasture.

There are other options but this one seems to be the best at the present time.

On the attached rough map I have marked the riparian pasture fence locations. Of course the actual fence line placement would need to be done after an on-the-ground analysis and the water distribution system was considered by your range staff. The upland pastures do not fall out as good, in the Jones and Pole Creek Pastures as they do in the Long Creek and Long Butte Pastures. This can be improved on over time. The riparian fences should be 5 strand wire with the bottom and top wires of smooth high tensile wire. Twice the usual amount of stays are needed to make sure the fence will contain or expel animals.

The recommended modified grazing strategy will require new fence construction and about a 25% increase in fence maintenance. When compared to the large amount of time it would take to efficiently ride and herd train, this added expenditure does not

seem so significant. Especially when you consider the amount of forage that is going to be lost in the future, because cows will always have to leave each pasture early to meet riparian criteria and standards. Under the new proposed strategy cattle could always be left in the pastures until programmed time to move to a new pasture. The riparian pastures, one in each of the original pastures, will give you control of animal distribution. This will allow adequate riparian vegetation to be left, over time, to maintain the valley, riparian, streambank, channel and water column processes.

The toughening up of the streambanks will allow them to once again handle floods while increasing in condition. Thus, they will start sending water to the flood plains to build underground water storage. This was one of the major problems I encountered on the allotment, and that was that most of the streams, especially first order, had lost through erosion, much of their aquifer storage. Thus, when the watershed should be holding its water and releasing it during July and August, when downstream ranches badly need it, the watershed is sending the water down early in the spring.

This year if the riparian pastures had been in place there would have been no need for any cow to have used the riparian zone. The uplands were loaded with forage which went unused. One year of complete rest would have moved the riparian habitat forward in the needed rehabilitation. It appears the late summer rains are gaining the soil moisture needed to help make next year another good grass year. If this happened, then the riparian systems could

have had two years of complete rest. Thus, these zones would have toughen up considerably.

Suppose the following year was a bad grass year. The riparian pastures would now be in condition to receive some heavy grazing. Thus, the permittee would have some added help during the poor years to make sure his calves put on the necessary gain and cows kept condition. Also, if needed, the riparian pastures could be grazed lightly every year at the right timing.

The proposed strategy, will allow the control of forage utilization necessary to make sure that the brushy species seed and seedlings survive to rebuild the riparian systems and their streams.

A few added water holding tanks or water access areas would need to be installed in the Jones and Pole Creek pastures. The Long and Lone Butte pastures appear to already have the necessary water distribution. I would continue with the present cattle ✓ stocking levels.

Riparian Standards

You ask me to comment briefly on the riparian criteria and standards being used to monitoring with. First I would like to stress that successful grazing allotments do not occur because of standards and monitoring. Successful allotments result when the right grazing strategy is applied on the right piece of land with the livestock operator maintaining proper surveillance. Monitoring is helpful, however, in determining if the strategy is working or

clusters. I wouldn't even consider stubble height, I would apply the correct strategy and management needed to maintain healthy riparian habitats and not get hamstrung with this type of a handicap.

*last comment
at stream* The inherent stability criteria is good and can be greatly improved on. Presently it is being applied to community types, if you need to get into a rehabilitation mode it must be applied to the habitat type. Applying it as it is presently being used means you are going to stay where you are, not where you should be going.

As for the classification of streams, I have been a proponent of classification for many years; but only if its ecological classification. To arbitrarily set them into groups by reach depending on what type of a fish inhabits them, again places artificial constraints. If this type of a classification is going to be used it should at least be used on a watershed scale and not by order or reaches. To classify a stream as a 1 and all its tributaries as 4's defeats the opportunity for watershed and basin management.

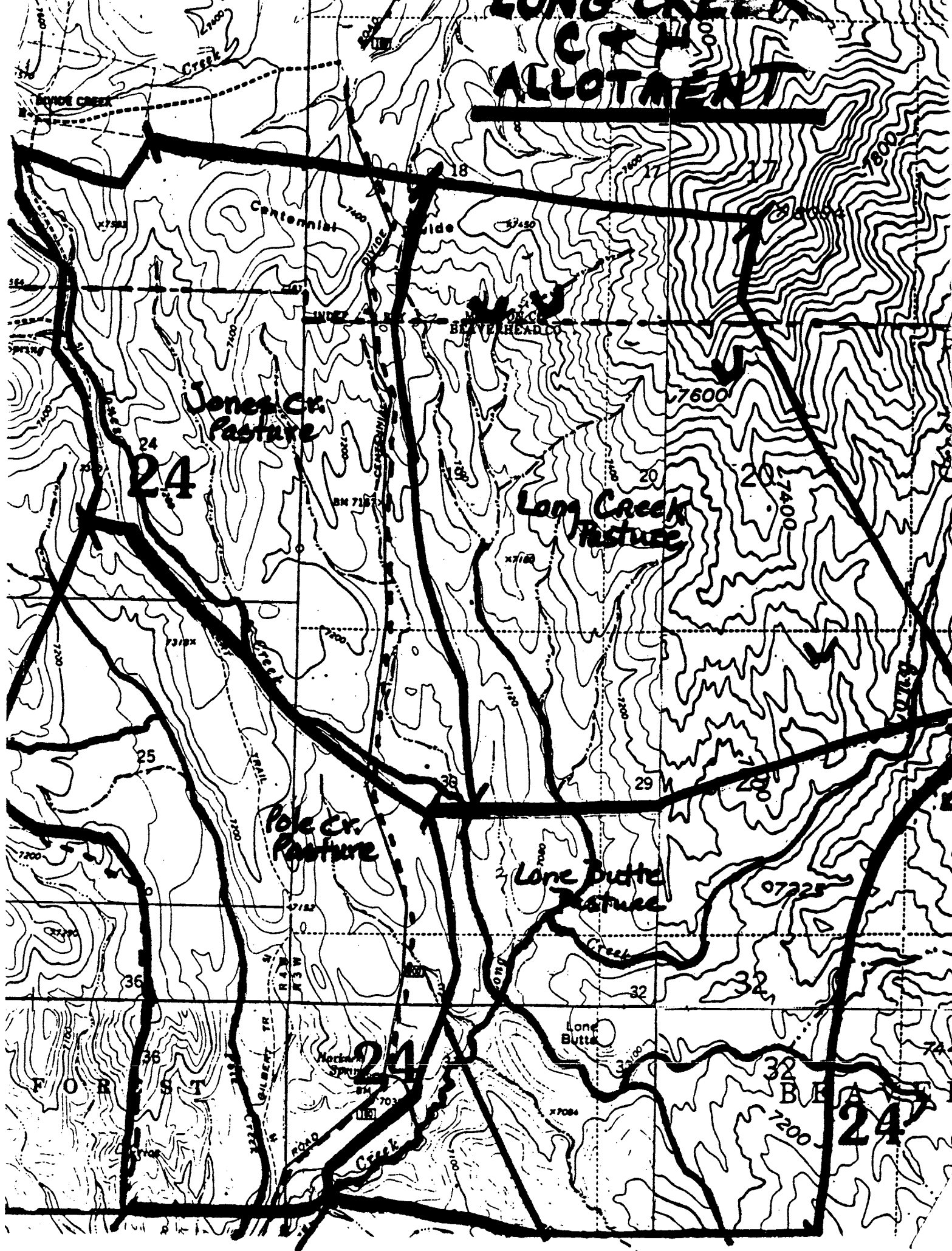
I appreciate the opportunity to again see this beautiful and productive country. If I can be of any assistance in the future please call. I was impressed with your experts and found them highly qualified and knowing what they are doing.

Sincerely,

William S. Platts *WSP*

August 31, 1990

LONG CREEK C + H ALLOTMENT





United States
Department of
Agriculture

Forest
Service

Pacific Southwest
Forest and Range
Experiment Station

1960 Addison Street
P.O. Box 245
Berkeley, CA 94701

Reply to: 2200

Date: September 24, 1991

August L. Hormay
Range Management Consultant
101 Acadia Street
San Francisco, California 94131

Dear Gus:

A copy of Ray Ratliff's letter to the Eagle Lake District is enclosed. He summarizes the results of his August 22 visit and makes several suggestions on things he feels the District should do on the Harvey Valley Allotment.

I spoke with Ray by phone after you left this morning; he will be at Susanville later this week. I asked Ray to request a response from the District on the enclosed letter, and to specifically ask: 1) does the District/Lassen NF plan to discontinue rest rotation grazing; 2) do they have plans to discontinue the Harvey Valley Demonstration? If they answer "yes" to either of these, I asked Ray to express our concerns and the wishes of the Station that both be continued. Both Ray and the Station are extremely interested in continuing many of the observations you initiated at Harvey Valley, we look forward to working with the Forest, the District, and with you in this effort.

I will keep you posted as I get additional information. We can follow up with the Forest and Region as appropriate after we get follow-up information from Ray's visit next week.

Sincerely,

GARLAND N. MASON
Assistant Station Director

cc: R. Ratliff
A. Leven

enclosure



United States Forest Pacific Southwest Forestry Sciences Laboratory
Department of Service Forest & Range 2081 E. Sierra Avenue
Agriculture Experiment Station Fresno, California 93710-4639

Reply to: 2209 Range Analysis

Date: Sept. 10, 1991

Shawne Mohoric, Resource Officer
Eagle Lake Ranger District
55 So. Sacramento St.,
Susanville, CA 96130

Dear Shawne:

This is to report the work accomplished August 20-23, my impressions of current conditions on the Harvey Valley Allotment, and some suggestions for the District's consideration. I very much enjoyed working in Harvey Valley once again and enjoyed our visit on August 22. Really, it was grand to be able to roam and work without concern about vehicles going by. With time not a problem, walking the valley and observing things brought back a flood of memories--mostly good ones.

Work:

Wayne and I were able to locate and verify the control points on over 40 of the old range condition and trend (RC&T) transects. For most of them, we were able to identify the transect number. When needed the spade on the head post was painted and the number renewed. Also, as necessary the control points (rods) were brought to the surface and positioned. All control points were sprayed to make them again visible.

Even though most have been damaged, the enclosure transects may still suggest whether protection from grazing is desirable. They are the only reliable comparison available for judging change on grazed areas. Except for enclosures 1 & 2, I did not attempt to check the enclosure transects. Transect posts in rebuilt enclosures 3 & 5 were missing, and I did not take time to try locating the control points. Doing so may be possible, but it will require time. Enclosures 4, 6, & 8 need to be rebuilt and if possible their transects relocated. Transects appeared to be in place in enclosure 4, but the fence was down.

Impression of Range Condition:

In general, I thought the range was in remarkably good shape, given five years of drought and use of the "rested" unit. I am sure some sites have improved in condition since 1957. Others have not and may require several lifetimes before sufficient soil develops or the water table rises to support better plants once again.

The meadow, riparian areas that I walked through looked to me in good condition. Also, I think there has been improvement in several areas with

Nevada bluegrass and silver sagebrush. Except for sagebrush recovery from spraying, however, little improvement appears to have occurred in upland types.

I would not be concerned with the punched-up look and bare spots, such as below Cone Springs, unless the area made bare continued to expand. Except possibly to have improved, the situation at Cone Springs has not changed greatly over the last 30+ years.

Suggestions:

1. Stay with the rest-rotation system. The prescription now in use appears to be working.

I understand your concern regarding use of the rested unit on a continuing basis. Such should be avoided, otherwise rest is not provided and in effect the system becomes a deferred rotation. Which, by the way, is surely more desirable than season-long grazing.

A primary concept of rest-rotation is that the grazing and rest provided will allow near natural competition among the various plant species. Change will then proceed toward that mix best adapted to the environment. Planned heavy use is intended to make cattle use plants and species they would otherwise avoid, thereby providing the more preferred plants a competitive edge when rest is given. Therefore, one should not be concerned when heavy use occurs in a rotation. Heavy use of the same areas at the same time year-after-year, of course, is not good.

2. Utilize existing transects in relation to the Pine Creek program.

Transects in lower areas at least should be retained for assessing change related to the Pine Creek restoration effort. Also, there are several transects not previously measured, many of which are in meadow sites. They should be considered for establishing base measurements for future reference. Additional work will be needed to locate and verify the control points.

There are at least two transects in Little Harvey Valley that appear to have been used to monitor water table depths. I know nothing about them other than where they are. If information on them is available, their activation should be of value in judging response to the Pine Creek effort.

3. Plan and budget for exclosure and transect maintenance.

One reason for the current situation is that neither the Station nor the District did the job of budgeting and planning for maintenance. Because they are links to the past and will tell whether management is moving vegetation in desired directions, at least selected transects should be maintained. Exclosures should be maintained as examples of response to the absence of grazing.

Also, measurement of the transects and evaluation of trends should be scheduled at regular intervals. Because of the long-term ecological trends that can be induced into our knowledge base, the Station should likely retain interest in these efforts. That decision, however, is not mine to make.

4. Complete the restoration work on the road and drainage ditches.

Places where the road was just cut through to allow water to pass appear to pose a potential erosion hazard, especially during years of high precipitation. Cuts, like culverts, concentrate flows. The road should be level with the surface on either side to permit natural spread of surface water. Check dams, as needed, should be put in the drainage ditches and back filled to promote water spreading and prevent its concentration.

5. Clean up the old fences.

While they helped me locate some of the RC&T transects, posts and wire from the old fences make the valley look unkept. Perhaps, once those transects that will be maintained for future work are decided upon, we should plan to clean up the allotment and remove fences posts, wire, and plot stakes no longer needed.

6. Use the well at the old camp for road, stock, and wildlife water.

Especially given the new well and pond near the main road from Bogard, I was surprised to find this well not in use. It is a good one.

As discussed on 9-9, I will be in Susanville on 9-26 to look over the files you have and help plan a new system of measurement for the transects.

Sincerely,

Ray Ratliff
Range Scientist

cc: D. Jones