

UNITED STATES GOVERNMENT

Memorandum

PACIFIC SOUTHWEST
FOREST AND RANGE EXPERIMENT STATION
P. O. Box 245, Berkeley, California 94701

EJW

TO : E. J. Woolfolk, Assistant Director

4210
DATE: September 20, 1963

FROM : Jack N. Reppert, Susanville

SUBJECT: Range and Wildlife Habitat Programs, (Bunchgrass Project, Harvey Valley Evaluation, status report)

This week the last of our three summer assistants will return to college. The two allocations of money from the Regional Office, totaling \$2670 (gross), was nearly all spent for the 26 man weeks of work since the start of pp. 14 (July 8). On September 11 we hired a student from the Lassen Junior College to continue our soils lab work in Susanville on a part time schedule. He will be paid from the remainder of the Regional Office fund before going to our regular project money. On September 9 Bill Sanderson returned to help us for the next four weeks and finish his two-month assignment.

The following outline will indicate what vegetation and soils facts we have gathered to date as well as what has to be done this fall and next summer to complete the fact gathering job.

- I. Continuation of Harvey Valley work started in the early years of the demonstration. All this work is within the Harvey Valley Allotment.
 - A. Permanent condition and trend transects established in 1956 and 1957 have been given a second reading this summer.
 1. All upland transects in 5 units -- 48 transects
upland transects in enclosures -- 18 transects
Total 66
 2. Still to be done. The compilation and analysis of these data is started and should be completed this fall.
- II. New work designed to compare the range status in Harvey Valley to conditions in outside allotments.
 - A. Comparable plots established in 1963 on a soil potential--vegetation type--grazing susceptibility basis. Factors considered: slope, aspect, distance to water, surface rockiness, vegetation type, timber overstory, and soil characteristics (pH, color, horizon development, depth, structure, texture, profile gravels, cobbles and stones, drainage).

1. Allotment boundary comparisons.

Between Harvey Valley and:

a. Grays Valley	-	8 plots
b. Lower Pine Creek	-	6 plots
c. Champs Flat	-	<u>14 plots</u>
Total		<u>28 plots</u>

2. Interior comparisons. Vegetation on plots located in units 1,2 and 5 of Harvey Valley will be compared with comparable plots located in Upper Pine Creek, Lower Pine Creek and Grays Valley allotments. Approximately 12 sites in all 6 areas above will be located and in some cases replicated with something like 70 to 110 study plots finally being located. To date 61 soil pits have been dug and studied and the nearby area described on potential study sites. (Total of 89 pits for 1 & 2 above).

3. Still to be done. a. Soil characterization is not complete on 62 of the 89 total areas selected for study. In many cases only the texture analysis is needed but for 32 dug pits the whole range of soil characterization still must be made and the pits filled. In addition about 50 more potential study locations must be found, the area described, pits dug, soil characterized and pits filled. All this work must be finished this fall and is currently getting nearly all the effort.

b. Final selection of methods of measurement to be used in the 1964 field season. A skeleton set of data will be collected this fall to aid in final formulation of sampling methods.

c. Measurement of soil and plant characters on all the comparable plots. This work will take place next summer (1964) and will require at least as much manpower as we have had available this year.

B. More extensive measurement of precipitation.

1. We have selected sites for six more rain gauges and have standard gauges temporarily located at these points.

2. Still to be done. This month we will have accumulation gauges made and installed.

C. Utilization check on comparable plots. This must be done this fall and in years to follow.

III. Lassen National Forest. Three-step condition and transects in Harvey Valley and nearby allotments have been read twice, summarized, and the data made available to us by Phil Lord and Bill Sanderson.

- A. 1. Data available is from five allotments and Harvey Valley as shown below:

<u>allotment</u>	no. of transect <u>clusters</u>	dates read		veg. trend		
		<u>before</u>	<u>after</u>	<u>down</u>	<u>stable</u>	<u>up</u>
Champs Flat	9	1956	1962	4	5	--
Grays Valley	4	1952	1962	1	3	--
Poison Lake	6	1955	1961	--	3	3
Upper Pine Cr.	4	1956	1961	--	3	1
Lower Pine Cr.	<u>3</u>	1956	1961	<u>1</u>	<u>1</u>	<u>1</u>
Total	26			6	15	5
Harvey Valley	5	1958- 1961	1963	1	3	1

2. Still to be done. We must look at this data on a site basis and determine its value to the overall evaluation.

Conclusions

1. The additional help given by the Regional Office through the Lassen Forest permitted the re-reading of the sixty-six permanent transects, the new work started on comparable plots in outside allotments, and the regular Lassen Forest three step transects.
2. The 1963 field season is not over. We should complete the establishment of all comparable plots this fall. This will be a race against the weather as we have about two-thirds of the total job of comparable plot selection completed. I think that with Ratliff and myself spending nearly full time in the field with Sanderson's help for four weeks we can wind up this work by late November.
3. The 1963 soils lab work (colors, gravel amount and texture) is not as far along as the field work. The lab has been moved into Susanville and a man is being trained to do this work which should last into December. This man will free both Ratliff and myself for continued field work.
4. The above tasks should be done this fall and winter so that we can finish the measurements planned for next year. To get this work done I think we should try to carry a part-time man (student) after the soils lab closes in December to assist us with data compilation and analysis. This work should last until we get back into the field in March or April. This man would work about 25 hours per week for two or three months.

I have talked with Fred Alberico about getting a man from Bogard R. S. two days a week to dig the remaining fifty pits after we locate about five proposed sites. We would pay the man's salary from project funds on the days the man worked for us. Fred is very agreeable to the idea especially since a two inch rain yesterday cut down the fire hazards of the district and the need for some of his manpower. We would have nearly twenty days of the hole digging for one man spread out over the next six weeks.

page 4

5. With my budget I can see my way clear to hire a "pit digger" from the Bogard R. S., if you agree. This should cost approximately \$400. However, the prospect of paying \$300 too, for student help past December 1st is too much for our budget to stand, considering we need to carry a three-man crew next June. If this position were to remain a GS-3 and the man worked twenty hours per week for four months a net of \$650.00 would cover it well enough.

J. N. Reppert, etc

Jack N. Reppert, Susanville

4210

September 24, 1963

E. J. Woolfolk, Assistant Director

Range and Wildlife Habitat Programs (Bunchgrass Project,
Harvey Valley Evaluation, status report)

Thank you for your very good status report on the Harvey Valley evaluation study of September 20. In accordance with the intentions I expressed to you earlier, I am sending this on to Ken Parker in Washington with the request that both he and DeNio give greater attention to the amount of supporting funds made available to you next field season.

I certainly appreciate your estimated need of a "pit digger" and a temporary person to do soils analyses and help with data compilation in Susanville but doubt that your budget can stand this much expense. If you haven't already tried, you might want to talk to Fred Alberico about the possibility of his donating at least part of the time that you feel will be required to dig the additional soils pits. After all, Fred has a stake in this Harvey Valley evaluation and should be able to contribute something toward the answers we want. Another item to remember is that additional moneys are usually available toward the end of the fiscal year so it might be well to go ahead with your temporary man now charged to your new budget and gamble on other funds to put field men to work in early or mid-June of next year.

I think you and Ray have done a fine job this summer in collecting data and making preparations for still additional data to be collected next year. It certainly seems to me that you have used your time and resources very well.

EJWOOLFOLK:gws

