

COPY

NAVAJO SERVICE
RANGE MANAGEMENT BRANCH REPORT
LAND MANAGEMENT UNIT No. 3
TUBA CITY

D. G. ANDERSON
Jr. Range Examiner
March 15, 1937

COPY

WR 1594

NAVAJO SERVICE
RANGE MANAGEMENT BRANCH REPORT
LAND MANAGEMENT UNIT NO. 3

COPY

D. G. ANDERSON
Jr. Range Examiner
Apr. 15, 1937

1. FOREWORD

A. LOCATION: Land Management Unit No. 3, with headquarters at Tuba City, Arizona, is located in the extreme western portion of the Navajo Indian Reservation and comprises the western portion of the Western Navajo Jurisdiction. The south boundary of the Reservation forms the south boundary of the Unit. On the west, the Tusayan National Forest, Grand Canyon National Park, and the Colorado River form the boundary. The Unit lies in Coconino County, Arizona, roughly between $110^{\circ}30'$ and $111^{\circ}45'$ longitude and $35^{\circ}30'$ and $37^{\circ}15'$ North latitude. For relative location see Reservation Map (Map 1).

B. AREA: The area of Land Management Unit No. 3 as outlined on the base map and compiled from range type maps is 1,750,800 acres. The original boundaries of the Unit included 1,422,230 acres but due to various conditions existing, several boundary changes were proposed and the area has been compiled considering the changes as effective. For description of changes see Paragraph "C".

- 1 -

COPY

WR 1595

COPY

C. BOUNDARIES: The boundaries of the Unit as originally set were, in general, as follows: Beginning on the Little Colorado River on the southern Reservation boundary and extending west and south along said boundary to the east boundary of the Tusayan National Forest; thence, north along the Tusayan National Forest, and Grand Canyon National Park boundaries to the Little Colorado River; thence, northeast to Moenave Demanstration Area, White Point, and Red Mesa; thence, to White Mesa; thence, east to Black Mesa; thence, south and west along Blue Canyon to $111^{\circ}00'$ parallel, thence south along Units No. 4 and 5 to the point of beginning. Boundary changes at Cedar Ridge, Red Lake, Howell Mesa, Dennebito Trading Post, and Black Falls have changed the boundaries of the unit as follows: Beginning at the junction of the Colorado River and Little Colorado River the boundary extends north along Marble Canyon (the west Reservation boundary) to Lee's Ferry; thence south along Echo Cliffs to the Gap Trading Post; thence northeast along Crooked Ridge to $111^{\circ}15'$ Meridian; thence southwest to Red Mesa; thence southeast to Little White Mesa; thence south along Red Lake Wash to Blue Canyon; thence east along Blue Canyon to Dusty Valley; thence south along Dusty Valley and rim to the Dennebito Wah at the Standing Cottonwood Tree Agricultural Area; thence southwest along the Dennebito Wah to three miles south of Dennebito Trading Post; thence west and south approximately twelve miles; thence south to the Little Colorado River approximately three miles above Black Falls; thence North along the Little Colorado River to the south Reservation boundary;

- 2 -

WR 1598

COPY

COPY

and thence along said boundary to the point of beginning.

Five boundary changes were proposed. A description of each including boundaries, acreage, carrying capacities, and reasons for making such proposals follows:

1. Cedar Ridge Bodaway House Change

This change adds to Unit #3 the area lying north of the original unit boundary east of Marble Canyon, west of Echo Cliffs and south of Crooked Ridge, an Area comprising approximately 485,000 surface acres, 40,000 forage acres, and a carrying capacity of 16,000 sheep units yearlong. The area involved was originally in L. M. U. #1.

Reasons for proposing this change are numerous. First, the proposed boundaries fall on natural topographic boundaries, Echo Cliffs being inaccessible from Lee's Ferry to the Gap with the exception of trails at Navajo Springs, Cedar Ridge, and Bitter Seeps. Crooked Ridge is a natural boundary, though not inaccessible.

From administration standpoint the area involved can be handled easier from Tuba City than Kaibito as headquarters.

Livestock usage in the area indicates an important need for the change. Indians in and around Crooked Ridge recognize this as a boundary, splitting very definitely Gap and Kaibito usage. Very little livestock movement across the boundary is to be expected from either groups of Indians. In the past there has been some shift of livestock south of Crooked Ridge by Kaibito Indians

COPY

WR 1597

COPY

during June for water. This condition has been corrected by construction of drilled wells north of Crooked Ridge.

Cultivated land at Tuba City and Moenave tend to draw Indians from Bodeway House, Cedar Ridge, and the Gap during the farming season. Livestock water in the Bodeway House area is of temporary nature and a seasonal shift to permanent supplies at the Gap and Tuba City results. There is, then, created a livestock movement that is best managed by including all the area involved in one land management unit.

Livestock usage in the vicinity of Cedar Ridge extends as far north as Bitter Seeps. The area north of that within the proposed change is used by Kaibito people for the purpose of salting their sheep on salt bush. Large herds come from Kaibito Plateau to this area for short periods of time to salt their sheep. There are enough Cedar Ridge cattle and horses in the area yearlong to more than properly utilize the available forage. The practice of salting on salt bush is very detrimental to the range, and to stop people from coming to this area for that purpose would be a wise action.

Administratively, this small area is only accessible to the Supervisor of Land Management Unit No. 1 by means of a trip of one hundred or one hundred fifty miles, the Supervisor having to go to Tuba City or the Gap to cross Echo Cliffs.

It was therefore deemed advisable to extend the boundary north to Bitter Seeps to Lee's Ferry along Echo Cliffs.

- 4 -

WR 1598

COPY

COPY

2. Red Lake - Black Mesa Change:

This change is an exclusion from Unit No. 3. The boundary would extend from Red Mesa to Little White Mesa and thence down the Red Lake drainage to Blue Canyon. This change would exclude 385,000 surface acres, 27,790 forage acres, and a carrying capacity of 11,116 sheep units yearlong in the vicinity of Red Lake, Cow Springs, and Clack Mesa from Unit No. 3. Of this area approximately 205,500 surface acres with 13,000 forage acres in the vicinity of Red Lake, Cow Springs, and western part of Black Mesa would be added to L. M. U. No. 1. Approximately 180,000 surface acres with 14,790 forage acres in the vicinity of Cow Springs and Black Mesa would be added to L. M. U. No. 2. The exact location of the line between Units No. 1 and 2 is not yet quite definite but the entire area is excluded from Unit No. 3.

Reasons for proposing this change were principally usage and management. The Red Lake Chapter boundary extended from Little White Mesa to Wild Cat Peak and then to White Mesa. Permanent water developed just east of this line has caused Red Lake usage to extend slightly farther west (to the proposed boundary line).

There is a constant shift of people from Kaibito to Red Lake for the purpose of cultivation very similar to the Bodeway House. Tuba City shift perviously discussed. In the winter is a counter-shift of people from Red Lake to Kaibito and the Copper Mine area for winter range. Such a shift creates a livestock movement problem better administered by including Red Lake and Kaibito in the same unit.

COPY

COPY

Red Lake is much closer to Kaibito than Tuba City and would be more easily administered by Unit No. 1.

3. Howell Mesa Change:

This area would add to Unit No. 3 the area south of Blue Canyon, west of Dusty Valley and Dennebito Wah, and east of 111°00' Meridian and includes 176,031 surface acres, 19,984 forage acres, and a carrying capacity of 7994 sheep units yearlong. This change was first proposed by Study Group "C" while working on Unit No. 4. A livestock usage was checked in this area with similar results as those obtained by that group.

Briefly, to review the reasons for making this change:

Usage is primarily Tuba City. The area is easily accessible to Tuba City because of roads and distance, making for more ease of administration from Tuba City than Kaibito and natural topographic boundaries would form the boundary.

4. Dennebito Wah Change:

This area is a continuation of the Howell Mesa change adding to Unit No. 3 from Unit No. 5 15,380 surface acres, 1369 forage acres and a carrying capacity of 548 sheep units yearlong. The area is defined by the Dennebito Wah on the east, Kloy-e-Chee rim on the west, and the Howell Mesa change on the north.

This change is made for the same reasons of usage, administration and topography as the Howell Mesa change.

5. Black Falls Change:

This change adds to Unit No. 3, 34,575 surface acres and

COPY

WR 1600

COPY

2585 forage acres with carrying capacity of 1134 sheep units yearlong. The area is delimited by the Little Colorado River on the south and west, the former Unit No. 3 boundary on the north and Rock Springs rim on the east. By this change the Tuba City and Leupp usage is split as nearly along the correct line as could be ascertained in the study. A well defined natural boundary is followed.

Usage in the area is principally as cattle and horse range and few people inhabit the area. None were present during the study on Unit 3 but more complete information has been obtained from the study on Unit No. 5 by Mr. McKinney. For further information see Range Management Branch Report of Unit No. 5.

The changes would increase the area of the Unit to 1,750,800 acres and the carrying capacity to 119,214 forage acres or 47,636 sheep units yearlong.*

* The changes involved in this unit have been considered as effective with regard to information for this report. Any figures and information hereinafter referred to in this report will consider the new boundaries with their consequent additions or exclusions from the original boundary.

COPY

COPY

C. CHIEF VALUES OF THE LAND: Very little farm land is available forest area comprise only $4\frac{1}{2}\%$ of the area. The remainder of the area can best be used in range livestock production. We must not lose sight of the fact that the entire area lies within the Boulder Dam Watershed and value of the land for watershed protection above this structure is important.

C. PRESENT CLASSES AND NUMBER OF LIVESTOCK: The present class of stock on the area is predominately sheep, although cattle are more important in this unit than other units throughout the Reservation.

Livestock numbers for this area have been taken from the 1936 dipping records. Because of the large and numerous changes made, there has had to be a recompilation of dipping vat records. Since adequate information was not placed on the original dipping vat records at the vat as to range of the herds, there will be inaccuracies that can only be corrected at the next dipping time.

The following tables compiled from the 1936 dipping vat records by Mr. C. W. Maddox shows graphically the numbers and classes of livestock.

COPY

COPY

Livestock Statistics Compiled from Original
Vat Records by C. Maddox to Conform to
Boundary Changes

Number of bands	159		
Number of Owners	268		
		Sheep Units	
Ewes	24,222	24,222	Lambs 12,248
Wethers	3,978	3,978	
Bucks	<u>485</u>	<u>485</u>	42.7% lamb crop
Grown Sheep	28,685	28,685	
Mannies	3,082	3,082	Kids 1,823
Wethers	182	182	
Billies	<u>163</u>	<u>163</u>	53.2% Kid Crop
Grown Goats	3,427	3,427	
Cows	500	2,000	Calves 212
Bulls	55	220	
Steers	<u>41</u>	<u>164</u>	35.6% Calf Crops
Grown Cattle	596	2,384	
Mares	389	1,945	
Stallions	46	230	
Geldings	589	2,945	15.7% Colt Crop
Mules & Burros	<u>319</u>	<u>1,595</u>	
Grown Horses	1,343	<u>6,715</u>	
		TOTAL	41,211
Total Sheep Units 1936	41,211	
Carrying Capacity	47,686	
Under stocking	6,475	

COPY

WR 1603

COPY

Above table shows an understocking of the unit. Even considering there are errors due to incomplete records at the dipping vats, this figure is lower than it should be. During the study movement on 35,000 sheep and goats was obtained. It is estimated 5,000 more sheep and goats are present. Horse population is estimated at 2500 head and cattle at 1500. If we use these estimates, we come closer to checking with utilization observations for the Unit. There would be then approximate stocking of 58,500 sheep units or an overstocking of 10,800 sheep units, or 22,64%.

E.

Present carrying capacity of the Unit is 47,686 sheep units yearlong. Present stocking on the area is 10,814 sheep units yearlong. A reduction of 10,814 sheep units or 18.40% is necessary to bring the present stock numbers to carrying capacity. There is a large number of wethers, horses, steers, and other non-productive stock that can be sold to bring about the reduction without serious loss in income to the Indians.

F. RELATIVE CARRYING CAPACITY OF THE LAND:

Much of the area in the unit, although shown to have a vegetative cover, is nearly in the class of waste land, having a forage acre factor of .01 or .02 and suffering a cut from 20% to 100% for slope and soil conditions. Only limited areas at Needmore, Bodeway House, and Coal Mine Mesa are good range land.

COPY

COPIE

G. Utilization: Range utilization over the area as a whole is from severe to moderate with only small areas showing proper or under utilization. (See Utilization Map) The area around permanent water especially around Tuba City, Cameron, Willow Springs Wash, and the Gap, have been severely overstocked over a period of years with consequent overutilization and range depletion. Water has been the principal limiting factor and the areas near Need more and the Junction have not been over utilized because of the lack of permanent water.

H. ANIMAL HUSBANDARY:

1. History: This unit is one of the oldest inhabited portions of the Reservation. The Mormon settlements at Lee's Ferry and Tuba City were established about 1869 to 1871. Continuous white livestock operations have been carried on in the Unit from that time until the area was made Reservation 1890, 1910, 1918, 1933. The last addition was the Cambell-Francis area.

2. Breeds and Types of Livestock: The present herds of sheep on the Unit are typical Navajo sheep of Merino and Spanish origin with a decided influence especially in large herds of Rambouillet rams of improved quality. Small herds exhibit a number of the old long wool sheep.

Goats in the area are first of Angora strain used in the production of meat and mohair; second a Navajo strain, slick-haired, and only valuable in meat production and to a limited extent produce milk for domestic use.

COPIE