RANGE AND SOILS EVALUATION OF THE SANUP PLATEAU

1985

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SUMMARY

A soils and range research evaluation of the Sanup Plateau was initiated in April 1984 through a Memorandum of Understanding between Grand Canyon National Park and Kaibab National Forest. The Secretary of the Interior is mandated to terminate grazing permits in the portion of Grand Canyon National Park on January 3, 1985, ten years after passage of P.L. 93-620.

The Western Region of the Park contains approximately 290,000 acres, of which 193,500 acres were inventoried. Large areas were not inventoried because they are steep and inaccessible to livestock, or because they were not included in existing grazing allotments.

There are four grazing allotments in the Sanup Plateau study area; the Parashaunt Allotment with 118,000 acres in the Park, the Home Ranch Allotment with 49,000 acres in the Park, the Dripping Springs Allotment with 6,500 acres in the Park, and the Diamond Bar Allotment which contains 20,000 acres in the Park.

This portion of Grand Canyon is dominated by steep cliffs and the Sanup Plateau, which is a relatively level bench atop the esplanade sandstone roughly 1,000 feet below the Canyon rim. Livestock access to the Sanup Plateau is gained down 5 to 7 long canyons that divide the plateau into several irregular benches. Water is available seasonally in some of these canyons. The area receives 10 to 15 inches of precipitation annually. Vegetation is mostly a desert shrub community dominated by blackbrush (Coleogyne ramosissima) with local areas of open woodland characterized by single-leaf pinyon (Pinus monophylla) and Utah Juniper (Juniperis osteosperma). Grassland communities were found on scattered pockets of moderately deep to deep soils.

The area was surveyed in April to August 1984. Data from a total of 137 soil plots and 133 range transects was established. Plots and transect locations were selected to achieve full coverage of all grazed and potentially grazable lands, and to be representative of local vegetation and soil conditions. Soil morphological and physical properties important to range management were collected. This included vegetation crown cover on a .1-acre plot, a 50-pace transect measuring vegetation composition density, plant vigor, and the standard soil profile description.

Data was analyzed and the inventory was conducted in accordance with procedures presented in the Allotment Analysis Handbook (FSH 2209.21 R-3)) and the Terrestrial Ecosystem Survey Handbook (FSH 2509.17). In addition, data was analyzed statistically to ensure that sufficient information was collected and to investigate differences between grazed and ungrazed lands. Total forage production at a desirable rate of utilization was used to determine grazing capacity. Longterm trend and utilization data was not available for this area.

Results

Sixteen soil mapping units were identified. Six of these describe steep talus slopes, shallow unproductive soils, badlands and rock outcrop, which account for 71 percent (137,155 acres) of the study area. Shallow, rocky unproductive soils dominated by blackbrush characterize four mapping units that make up 20 percent (39,042 acres) of the study area. These lands are generally accessible

to livestock but produce little forage and are little used, even near water sources. They have no potential of becoming forage producing sites. Three mapping units, 182, 192, and 195 represent the grassland biotic communities on moderately deep and deep soils. These are the most productive and most utilized units and occupy 6 percent (11, 221 acres) of the study area. The three remaining mapping units represent the riparian wash bottoms, and/or blackbrush and pinyon-juniper slopes that are sufficiently stable and contain enough forage to be considered with the grassland units as full capability (FC) lands. These remaining units that are considered FC make up approximately 6,080 acres or three percent of the survey area.

Grazing Impacts

The impacts of grazing were identified by comparing relic sites to grazed areas with statistical and ordination techniques. There is a significant difference between grazed and ungrazed areas, particularly in the grassland mapping units 182 and 192. Canopy cover of desirable forage plants is reduced on grazed lands. This is particularly apparent when examining cool season grass species that have been reduced or eliminated on grazed lands. Canopy cover percentages by cool season grasses made up 20-25 percent of the perennial forage on ungrazed sites. Invader species such as snakeweed, rubber rabbitbrush, and burrograss increased on grazed sites. Effective ground cover was reduced from a mean of 40.8 percent on ungrazed grassland sites to a mean of 18.2 percent on grazed grassland sites. Forage production was significantly reduced from a mean of 522 pounds per acre on ungrazed grassland sites to a mean of 144 pounds per acre on grazed grassland sites. Range condition scores were also reduced from mean of 79 (High Good) on ungrazed grassland sites to a mean of 31 (Poor) on grazed grassland sites.

Unproductive, shallow soils that support predominantly blackbrush are much less impacted. Effective ground cover, forage production and range condition score were not significantly different. This supports the observation that these blackbrush communities are little used by livestock, except for trailing, and should not be assigned a capacity value.

Rehabilitation

Once grazing permits have been terminated on the Sanup Plateau, the exclusion of livestock through fencing and elimination of water developments will allow the soils and vegetation to recover. No supplemental seeding or vegetative treatments will be necessary because native seed sources are present for all species except the cool season grasses which may never recover fully.

Range Evaluation

The range evaluation of the Sanup Plateau involved the determination of:

1. Full capability, potential capability, and no capability lands.
2. Range condition on all lands that are in an assigned grazing allotment.
3. Range capacity values for the individual allotments.
4. Forage production of perennial, desirable grass species.

The ability of any range to sustain a livestock operation and attain reasonable management objectives (i.e., proper utilization on key species and dependable and well-distributed water) is due, in part, to the establishment of a classification system that separates out lands that should not be assigned capacity under current conditions. The terminology of full, potential and no capability refers to a given piece of land and its ability to carry livestock. Whether or not a range is termed full or any other capability class is due to many factors including existing soil erosion rates, current forage production, distance from water, and accessibility. Of the total 193,500 acres within the study area, only 18,500 acres (10 percent) were classified as being full capability. This breaks down to 11,495 acres or 10 percent of the Parashaunt Allotment, 2,725 acres or 6 percent of the Home Ranch Allotment, 280 acres or 4 percent of the Dripping Springs Allotment, and 3,875 acres or 19 percent of the Diamond Bar Allotment. The bulk of no capability classification is tied to map units 179 and 181 which represent the steep inaccessible slopes above and below the Sanup Plateau. The amount of these units inventoried on the Parashaunt, Home Ranch, Dripping Springs, and Diamond Bar Allotments is approximately 61,288 acres (52 percent), 23,682 acres (46 percent), 5,216 acres (80 percent) and 8,680 acres (43 percent) respectively. Only two units (i.e., 190 and 191) were classified as no capability due to soil erosion. Universal soil loss equation tables indicate that the majority of these units are currently exceeding the tolerance established. However, the shallow soil depths and inherent unproductive nature of these soils has more to do to the high erosion rates than grazing pressure. Capacity was calculated only on those lands given a full capability classification.

Range condition was measured on all map units regardless of its capability class. Of the 133 pace transects, 65 rated very poor (49 percent); 41 rated poor (31 percent); 16 rated fair (12 percent); and 11 rated good to excellent (8 percent). Range conditions relate directly to both edaphic properties and to grazing intensities on the site. For example, shallow soils with high percentages of internal coarse fragments were poor and very poor on both grazed and relic sites. Deeper soils have a higher productive potential which resulted in fair or good range condition ratings. These higher ratings generally were located on isolated relic sites and/or on moderately or lightly grazed areas. Trend, which expresses the direction of change, if any, in range condition due to past and existing livestock management practices, was not determined. Utilization of forage plants was not measured. To adequately measure utilization, cages would have had to have been placed in key areas and monitored through the grazing season.

Grazing capacities on individual allotments were determined by taking the average production of the full capability acres, assigning an allowable use (which gave the amount of forage available), and then dividing that by the forage consumed per AUM. This methodology was used due to the lack of trend and utilization figures. Currently, the Forest Service does not use this system to determine capacities. However, due to the limited scope of the inventory (i.e., data was collected only during one growing season) this methodology is the only one available to derive an estimated capacity. Also, the capacities shown are ranges based on the average production with a 20 percent error above and below the mean.

The Parashaunt Allotment which makes up the largest percentage of the Sanup Plateau study area has a range in estimated capacities from 513 AUM's to 786 AUM's, with a mean of 650 AUM's. The range in estimated capacities for the Home Ranch Allotment goes from 136 AUM's to 203 AUM's with a mean of 172 AUM's. The Dripping Springs Allotment has a range of estimated capacities from 15 AUM's to a high of 22 AUM's with a mean of 18 AUM's.

Diamond Bar Allotment has a range of estimated capacities from a low of 74 AUM's to a high of 114 AUM's with a mean of 94 AUM's.

If grazing is to continue on the Sanup Plateau, it is recommended that the cages be placed in the full capability units and actual utilization ascertained. Over a 3 to 5year period of time, the use patterns and the capacity of those lands within the Sanup Plateau area can be determined with a higher precision level. During this same time period, permanent clusters should be established so trend data can be collected.

INTRODUCTION

In pursuant of Public Law 93-620, Section 7 (c)(16 USC 228 i) which mandated the Secretary of the Interior to terminate grazing permits on the Sanup Plateau, it was deemed necessary to evaluate the current status of terrestrial ecosystems, range condition and capability to sustain grazing, and determine the effects of past grazing on the various biotic communities.

To accomplish this task the Grand Canyon National Park-USDI, and the Kaibab National Forest-USDA, signed a Memorandum of Understanding in April 1984. The Objectives of the study were to:

1. Inventory, classify, and evaluate the soil resource and existing terrestrial ecosystems.

2. Classify lands according to grazing capability.

3. Determine current ground cover conditions, total forage production, plant physiological conditions, and frequency of cool and warm season perennial grasses.

4. Evaluate existing range conditions, and determine capacity.

5. Determine the floristic, edaphic, and other ecological parameters which differentiate the vegetation types from one another.

6. Determine correlations among the various edaphic, zootic, and vegetative variables.

Objectives one, five, and six involved the actual collection of information whereas objectives two, three, and four is the collective interpretation of that data.

The Sanup Plateau contains approximately 290,000 acres of which 193,500 acres were inventoried. The portions not inventoried were considered inaccessible and/or not part of an existing allotment. The boundaries defining these sections are:

1. Separation Canyon north of the Colorado River and moving east around Kelly Point terminating at Springs Canyon (approximately 85,400 acres).

2. South of the Colorado River, all lands west of an inventory line roughly following the Grand Wash Cliffs (approximately 9,600 acres).

It should also be noted that several small sections of land on the Shivwits Plateau were not inventoried during this study. The acreage involved here is roughly 1,500 acres. The study area can then be broadly defined by the following land forms: the Shivwits Plateau on the north, the Colorado River on the south (except for the Grand Wash Hook area), Pierce Canyon to the west, and Andrus Canyon on the east.

Within the Sanup Plateau Study Area, there are currently four grazing allotments, which include (Figure 1):

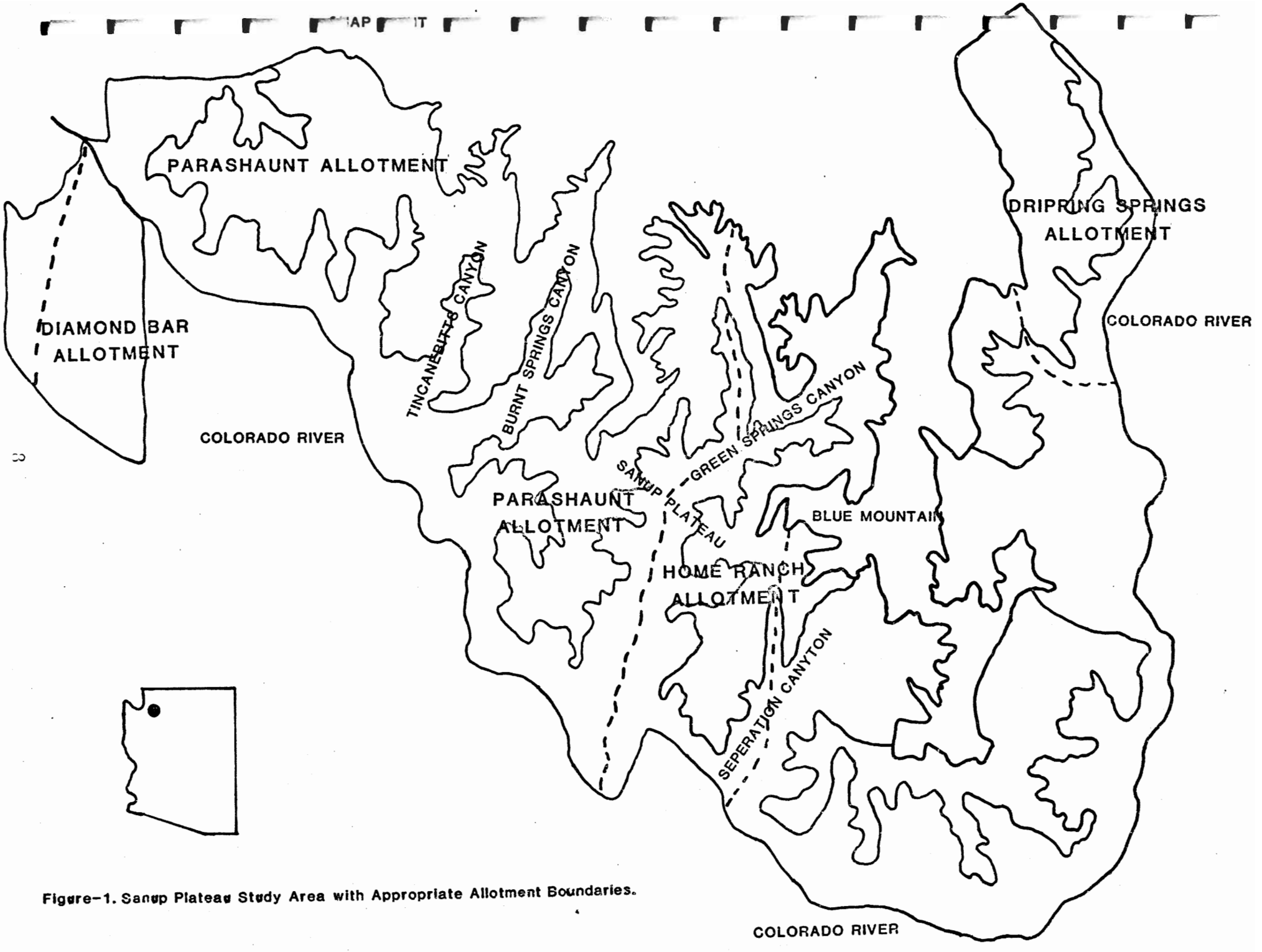


Figure-1. Sanup Plateau Study Area with Appropriate Allotment Boundaries.

1. Parashaunt Allotment which contains approximately 118,000 acres. This allotment has the highest acreage value within the Grand Canyon National Park.

2. Home Ranch Allotment which contains 49,000 acres within the Grand Canyon National Park.

3. Dripping Springs Allotment which contains 6,500 acres within the Grand Canyon National Park.

4. Diamond bar Allotment which contains 20,000 acres within the Grand Canyon National Park. This allotment represents the only segment south of the Colorado River which is included in the Sanup Plateau study.

The study area is grazed during the winter-spring period with the season of use being November through May. The majority of grazing use is occurring on the broad structural bench which makes up the Sanup Plateau. Inventory processes concentrated on these areas and on nearby relic mesas.

The Sanup Plateau represents a portion of the Grand Canyon Section of the Colorado Plateau Physiographic Province. Approaching southward from the Shivwits Plateau, the upper canyon sides display nearly vertical walls making access to the Sanup extremely difficult except for isolated breaks in the rim. The cliffs terminate in very steep talus and scarp sideslopes with debris from the upper cliff formers. The phenomenon observed on the cliff forming portions of the Sanup as well as the rest of the Park is the result of rock failure with debris removal by gravity. This form of erosion is the result of frost wedging within a fracture plan or the loss of strength due to the erosion of underlying strate (1). The talus slopes terminate on the broad structural bench which then extends out to the vertical cliffs which form the inner canyon.

Faulting has also exerted significant control on the structural development within the study area. The major structural features responsible for the vertical and lateral changes that are observed are the Grand Wash, Hurricane and Toroweap fault systems. Each of these faults trends generally north-south and are upthrown to the east. These faults are evidenced by prominent scarps which range from 200 to several thousand feet (1).

The history of the geological formations exposed through erosion in the Grand Canyon has been well studied and documented. The upper cliff formers are comprised of Permian Kaibab, Toroweap Limestones and Coconino Sandstone The sheer vertical cliffs produced by these formations stops abruptly at the junction with Hermit Shale. The Hermit Shale typically is considered a slope former due to the ease at which it erodes. These steep and very steep talus slopes terminate on the Supai Sandstone. Actually, the Supai formation is composed of three layers: the lowest is the interbedded limestone and red shale section; the next is the slopes of red shale and siltstone; and the upper section is mainly a light-colored sandstone. The middle interval is composed of fine-grained clastic sediments that make up the bulk of the eight-hundred-foot-thick formation. It is this portion which supplies the red pigments that color the middle reaches of the inner canyon. Below the lower Supai formation, sheer cliffs of Redwall, Devonian, Muav Limestone appear and extend to the Colorado River. Older precambrian rock-types including the Grand Canyon Series and Vishnu Schist are also observed within the Canyon in the study area at the lowest levels. (Table 1).

Table 1. Geologic Time, Formations and Parent Materials for Grand Canyon National Park (1).

Era	Period	Approx. Age in Millions of Years	Formation	Parent Materials
Paleozoic	Permian	225-270	Kaibab	Limestone colluvium
			Torroweap	Limestone-sandstone colluvium
			Coconino	Sandstone colluvium
			Hermit	Shales-siltstone colluvium, residuum
	Pennsylvanian	270 to 300	Supai	
			Esplanade	Sandstone residuum
			red beds	Shale residuum
	Mississippian	300 to 340	Redwall	Limestone
	Devonian	340 to 400	Temple Butte and other Devonian material	Limestone
	Cambrian	500 to 600	Muav	Limestone and dolomite
			Bright Angel	Shale
			Tapeat	Sandstone
Archeozoic	Precambrian	600 to ?	Vishnu	Schist

The climate of the Sanup Plateau is quite variable due to the effects of relief, aspect, and topography. It is characterized by hot, dry summers, and cold, moist winters. Two distinct periods of precipitation occur in the study area. Summer precipitation generally occur in the form of high intensity thunderstorms with moisture originating from the Gulf of Mexico whereas winter precipitation comes from moist air masses from the Pacific Ocean. Snow is not uncommon but rarely lasts for more than a few days before melting. May and June are typically the driest months. Data from Supai and Tuweep, the closest weather stations to the Sanup, are presented in Table 2.

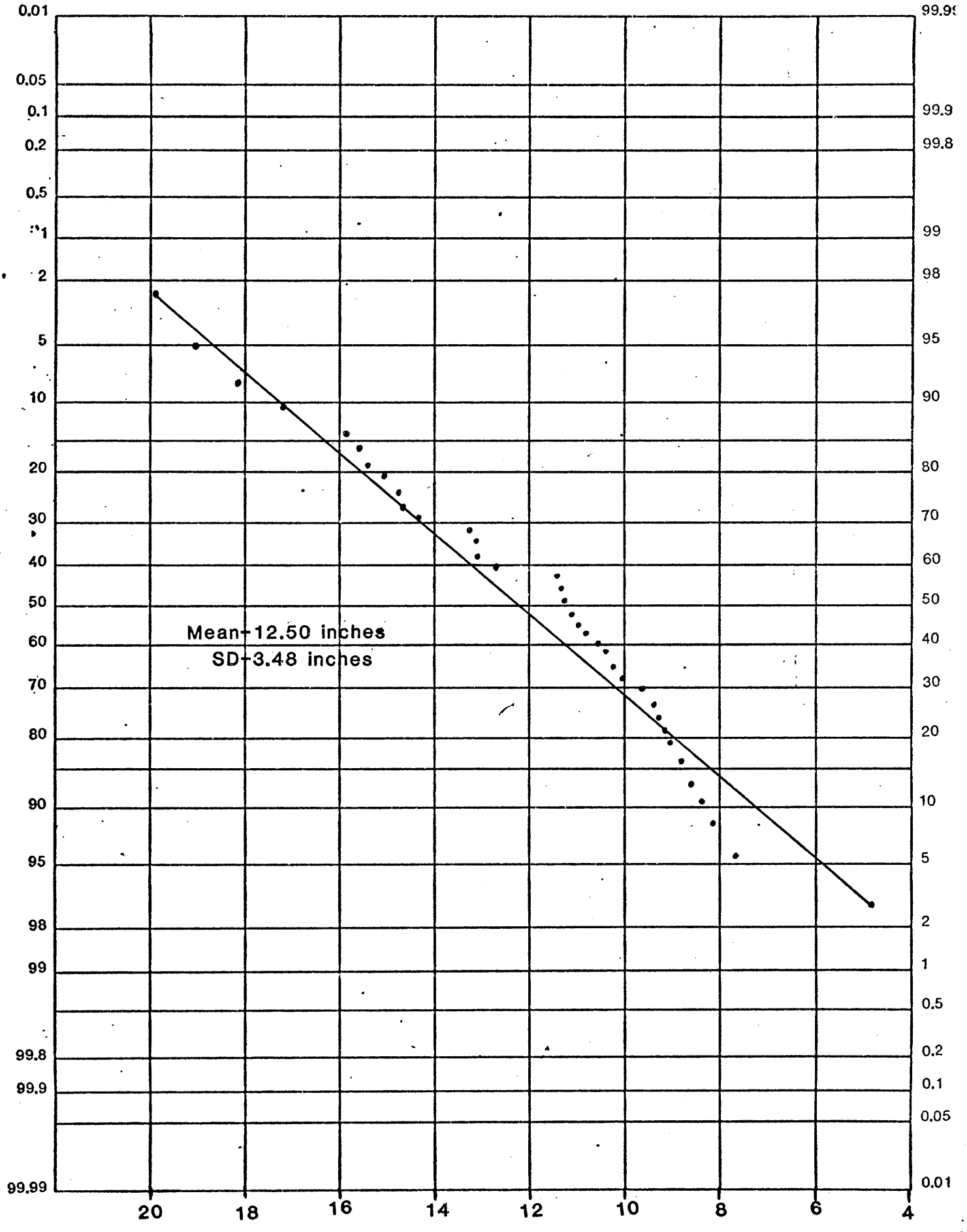
The average annual air temperature ranges from 14°C to 16°C. The hottest months are June and July and the coldest are December and January. Mean annual precipitation ranges from 20 to 31 centimeters. Approximately 65 percent of the annual precipitation occurs seasonally between the months of October and June (2).

Table 2. Climatic Characteristics for Supai and Tuweep, Arizona.

Climatic Measurement	Supai	Tuweep
Range in total annual precipitation (centimeters)	10.30-33.0	12.0-49.90
Mean annual precipitation (centimeters)	20.	30.10
% total annual precipitation falling July-September	33	36
Range in yearly temperature extremes (°C)	-20 to 43.90 -4 to 111	-17.80 to 42.20 0 to 108
Mean air temperature (°C)	16.10	14.40
Mean maximum air temperature (°C)	25.00	21.10
Mean minimum air temperature (°C)	7.80	7.20

Since Tuweep, Arizona, is probably more representative of the survey area, a cumulative frequency analysis was calculated which is displayed in Figure 2. The established mean is approximately 12.50 inches with a standard deviation of 3.48 inches.

Within the study area, not only does the vegetation vary due to the elevational changes (which affect both precipitation and temperature) but it is also affected to a large degree by edaphic factors. To complicate vegetative mapping further, vegetation indigenous to the Mohave Desert and the Great Basin and Range meet and overlap within the general area of the Sanup Plateau. The largest component of the study area is the desert shrub community dominated by Coleogyne ramosissima (blackbrush). Woodland ecosystems are comprised mostly of Pinus monophylla and Juniperus osteosperma (single-leaf pinyon pine, Utah Juniper). The Mohave Desert influence was found only in the Grand Wash Hook area with the key indicator being Yucca brevifolia (Joshua tree). Within all of these biotic communities, grassland ecosystems were found on the deeper soils. In most cases these grassland sites were dominated by Bouteloua eriopoda (black grama).


0.01
0.05
0.1
0.2
0.5
1
2
5
10
20
30
40
50
60
70
80
90
95
98
99
99.8
99.9
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
Mean=12.50 inches
SD=3.48 inches
20
18
16
14
12
10
8
6
4
Annual Precipitation in Inches.

METHODS AND PROCEDURES

The Range and Soils Evaluation of the Sanup Plateau consisted of describing terrestrial ecosystems, concomitant soils, range capability, range condition, grazing capacity as well as other ecological characteristics that make up the various biotic communities. Analysis of data eventually lead to the classification of terrestrial ecosystems, identification of map unit components, establishing range capacity, determining range condition and establishing a capacity estimate for the four grazing allotments within the Park boundaries.

The method used in determining Terrestrial Ecosystems (TE), is dependent on simultaneous application of information from the fields of pedology and synecology. Soil, vegetation and climate are recognized as the basic Terrestrial Ecosystem Components (TEC). A Terrestrial Ecosystem the, is a comceptual representation of the obligatory relationships existing between climate/soils/vegetation. Other ecosystem components are correlated with either the soil or vegetation or through the use of phase criteria (e.g., slope, aspect, relief, etc.) of map units (3).

Terrestrial Ecosystem Survey (TES) is the systematic examination, description, classification (soil/vegetation) of biotic communities into similar vegetative types. Map units are, or phases of, Terrestrial Ecosystems and are named for both soils and vegetation. The intensity (levels 1 through 7) of the survey is identified by the taxonomic level of the soil component appearing in the map unit name (3).

Categories of soil climate are aligned along a gradient and are used in the initial separation of continuums into individual Terrestrial Ecosystems. Indicator plants are correlated to these separations and identified by field measurements. Timing and the amount of precipitaiton is also used in the recognition of gradients. This type of direct gradient analysis provides the systematic linkage between soils and indicator plants of the various Terrestrial Ecosystems (3).

Soils inventoried were classified to the Great Group, sub-group or phases of families from Soil Taxonomy (4). The level to which a mapping unit was classified in Soil Taxonomy was dependent on the intensity of mapping. If for example a unit was inventoried on steep inaccessible slopes and/or the soils were found in such a complex manner it was virtually impossible to map at the family level these areas were mapped at Level IV or possibly Level V.

The objective of Soil Taxonomy is to provide hierarchies of classes which permit understanding of the relationships between soils, and the factors responsible for their characteristics. This is accomplished in part by establishing different important soils morphological properties. An example of this is the use of soil horizons or the lack of them in classification. An important distinction must be made between classification and taxonomy. Classification includes taxonomy but is broader in scope in that it also considers classifications for specific practical purposes. The use of phase designations for specific purposes is an example. Phases are not part of taxonomy, and will vary from one survey area to another. The name of a phase is indicative of how it will affect management practices.

Taxonomic units, (e.g., Lithic Argiborolls, loamy-skeletal, mixed) are precisely defined based on properties in Soil Taxonomy. They form the nucleus for naming mapping units. However, a limitation with Soil Taxonomy is that it does not allow equal consideration of the same soil properties at each category of classification (i.e., soil moisture, soil temperature). To overcome this problem, a system of Subgroup modifiers was developed in Region 3. These modifiers separate out the subtle changes in vegetation by indicating the changes in either soil moisture or temperature. Terrestrial Ecosystem gradients tend to merge at cold/wet limits and conversely they diverge at their hot/dry limits. The variations in climate, can be accounted for with the following climatic categories of Low Sun Cool (LSC), High Sun Cool (HSC), High Sun Mild (HSM), and Low Sun Mild (LSM). These climatic categories are based on the percent of annual precipitation occurring during specified months and the presence or absence of deciduous oaks (i.e., Gambel oak). This is essentially the first step in the correct application of Subgroup-Modifiers, to determine what climatic category is applicable to the survey area. Table 3 list the appropriate climatic categories found within Region 3 (3). The one chosen to represent the Sanup Plateau study area is LSC.

TABLE 3 - CLIMATIC CATEGORIES INVENTORIED WITHIN REGION 3

Season with greater than one-half of annual precipitation	Winter Temperature	Indicator Plants
HSM-High Sun (HS) 01 April to 30 Sept.	Mild (M)	Quhy, Quar, Arpu 5
HSC-High Sun (HS) 01 April to 30 Sept.	Cold (C)	Quga, Quuo
LSM-Low Sun (LS) 01 Oct. dto 31 Mar.	Mild (M)	Quar, Qutu$_2$, Arpu 5
LSC-Low Sun (LS) 01 Oct. to 31 Mar.	Cold (C)	Quga, Artr^2

In summary since both the Mohave Desert and Great Basin and Range influence met in this portion of the Canyon, there are probably both LSC and LSM gradients. This, in part, would explain the dominance of single-leaf pinyon pine in the woodland ecosystems.

To adequately reflect variations from the central concept of LSC, numerical values are then employed. This enables soil scientists to show differences between ecosystem when the soil taxonomic classifications are identical. Table 4 shows the soil, vegetation, and climatic factors which have influenced the soil classifications in the Sanup Plateau inventory. As the table shows, the use of numerical values of -1/+1 has not been employed within the survey area. This is due mainly to the confusing nature of the terrestrial ecosystems inventoried. As an example, blackbrush which is considered a climatic climax under column two, LSC, is also a dominant shrub component within the woodland ecosystem. The question that arises is: does the woodland ecotone on the Sanup Plateau represent an edaphic or topographic variation under column two or is it actually a variation under column four? Due to the concentrated nature of this inventory, areas outside of the survey boundary which might have elucidated the proper placement of the various ecosystem on the Sanup was not accomplished. In the development of Table 4, not only was information collected during this inventoiry used, but also data collected from National Forest lands. This was done in order to establish central concepts and trends. Therefore, some of the mean elevations actually found on the study area may not correspond with Table 4. An example of the use of numerical values to differentiate changes in precipitation is found in the woodland ecosystems under column four.

Table-4: Soil, Vegetation, and Climatic Factors and their Relationships to Soil Taxonomic Classifications.

Column	1	2	3	4	Numerical Values indicating variation from Central Concept.
Mean Elevation (Meters)	1435	1450	1525	1600	
Mean Precipitation (Centimeters)	15	20	25	40 +1 35 0 30 -1	
Mean Air Temperature (°C)	14	13	13	12	
Mean Annual Soil Temp. (°C)	15°	14	14	13	
Climatic Climax	Yubr Cora	Cora YUCC EPHE	Artr2 Hija Bogr2	Pied (Juos) (Jumo) Artr	0
				(Juos) (Jumo) Artr2	-1
				Pied (Juos) (Jumo) Artr2 Quga	+1
Topo-edaphic Moderately deep	Yubr Cora Stco Boer	Atca Eula Stco Boer		Pimo Atca Stco Boer	0
					-1 +1
Topographic Drw/Cold				Pimo Juos Cora	0
					-1 +1
Fire		Brru Brte			
Grazing (Zootic)		Gusa	Gusa	Gusa	0 -1 +1
Soil Temperature Regime	Thermic	Mesic	Mesic	Mesic	
Soil Moisture Regime	Aridic	Aridic	Ustic	Ustic	
Soil Taxonomic Classification	Typic Calciorthids	Ustollic Calciorthids	Aridic Ustochrepts	Typic Ustochrepts	
Mapping Units	195	178, 182, 182, 184, 194	Not Inventoried	39, 189, 190 191, 192	

Essentially there are three major woodland zones:

(1) Utah Juniper/big sagebrush (Juos/Artr)
(2) Pinyon pine/Utah Juniper/big sagebrush (Pied/Juos/Artr)
(3) Pinyon/pine/Utah Juniper/Gambel oak/big sagebrush (Pied/Juos/Quga/Artr)

All three ecosystems are considered climatic climax. For brevity and ease of discussion, the taxonomic classification in these three ecosystems is Lithic Ustochrepts, loamy-skeletal, mixed, mesic. The appropriate numerical value to be used to show the variations in precipitation for the Juos/Artr, Pied/Juos/Artr, and Pied/Juos/Quga/Artr, is -1, 0 and +1 respectively. The numerical value -1 is indicative of the hotter-dryer end of the woodland ecosystems, whereas a +1 indicates the wetter/cooler side. All three of these ecosystems are found in the Grand Canyon National Park, east of the Sanup Plateau.

The first step in the sampling of the soils and vegetation on the Sanup Plateau was a reconnaissance and familiarization of the study area. The vegetation was visually abstracted into terrestrial ecosystems. Once intensive sampling was initiated within the study area, plots were objectively located within plant communities.

At each data point a standard soil profile description was determined. Descriptions for each horizon included horizon designation, depth, color (dry and moist), texture, structure, consistence (dry, moist, and wet), boundary, roots, pores, and ph (Truog Soil Reaction Test).

A fifty pace line transect was taken at each pit location. Information on the percent grasses, forb, shrub basal area, coarse fragments, rock outcrop, and bare soil was collected.

Percent canopy cover was recorded for each perennial species in the following manner: At the plot center (which is where the soil profile was described) a $375m^2$ (0.1 acre) was paced off. The plot was then divided into quarters and the amount of canopy cover by each plant species determined. Data from each quarter was aggregated to get the total canopy cover for each species. A cover value listed as a trace was assigned a value of 0.01 percent.

A mapping unit is a collection of sites named the same in terms of their taxonomic classifications or miscellaneous land types or both. Mapping units are made of soils of different families, or of different phases of one family (4)

Soil complexes are mapping units that are geographic mixtures of two or more kinds of soil (taxon) or miscellaneous land type that are in a pattern so intricate that the two components cannot be separated out at the scale of mapping (4). The name of a soil complex consists of the name of the dominant soils, joined by a hyphen. Ustollic Calciorthids, LSC, 0, loamy-skeletal, carbonatic, mesic-Lithic Ustollic Calciorthids LSC, 0, loamy-skeletal, carbonatic, mesic, complex, 0 to 40 percent slopes is an example.

Soil associations are mapping units in which a geographic mixture of two or more kinds of soil (taxa) or a soil and miscellaneous land type occurs. The differentiating criteria between a soil association and soil complex is that within a soil association the major soil components occur in a regular pattern and are individually large enough to be delineated at the scale of mapping (4). The reasons the soil components are not mapped separately are:

(1) The relative proportions of each major component varies from one delineated area to another.

(2) To separate the two components would detract greatly from the readability of the map.

Ustollic Calciorthids, LSC, 0, coarse-loamy, mixed, mesic-Lithic Ustollic Calciorthids, loamy, mixed, mesic association, 0 to 15 percent slopes are an example.

In a consociation, delineated areas are dominated by a single soil taxon and similar soil. At least one-half of the descriptions in the sampled delineations are the same soil component providing the name for the map unit. The remainder of the delineation consists of soil components so similar that major interpretations are not affected significantly. The name of consociation consists of the dominant soil taxon with the appropriate phase designation (4). Typic Ustochrepts, LSC, 0, coarse-loamy, mixed, mesic, 0 to 15 percent sloes is an example.

Undifferentiated groups are two or more taxa that are not consistently associated geographically but that are included in the same map unit because use and management are the same or similar. This type of unit is usually reserved for areas where steepness of slope or flooding overrules management objectives. Every delineation has at least one of the major components and some may have all of them (4). Usthorthents-Torriorthents-Rock Outcrop, 40 percent to vertical slopes is an example.

Miscellaneous areas are landforms having little or no identifiable soil, i.e., cliffs, badlands, and rubbleland. It must be recognized, however, that in some areas, there will be soil in concentrations up to 15 percent. This type of mapping unit was designated to handle the steep inaccessible landforms above and below the Esplanade bench, and areas that were essentially barren (e.g., badlands). The name of a miscellaneous area consists of the name of the dominant land types, joined by a hyphen (4). Rock outcrop-Rubbleland, 80 percent to vertical slopes, is an example.

Soil loss was estimated through the application of the Universal Soil Loss Equation (USLE). USLE is the most widely used and accepted method for prediction of sheet and rill erosion over a wide range of conditions (5). Approximately 10,000 years of plot data was used in the development of the original equation (5). It includes the six major factors that affect soil erosion by water, rainfall, soil erodability, slope length, slope steepness, cropping and management techniques, and the supporting conversation practices.

This model enables land management planners to estimate average annual erosion rates for a wide range of rainfall, soil, slope, crop, and management conditions and to select alternative land use and practice combinations that will limit erosion rates to acceptable levels (5).

USLE is written as A=RKLSC, in which:

A = Is the computed soil loss (sheet and rill erosion) in tons/acre/year. It defines the long-term soil loss from a given site. It does not measure sediment yield nor wind and gully erosion.

R = The rainfall factor, which is the measure of raindrop energy of a storm and is based on a 2-year, 6-hour storm. Where snow is a factor in the erosion process, a separate factor (Rs) is calculated.

K = Is the soil erodability factor which represents the capability of the soil surface to resist erosion. It is a function of the soil physical and chemical properties (i.e., texture, organic matter, soil structure).

LS = Is the slope-effect factor. Soil loss is affected by both length and degree of slope. Slope length is defined as that point where deposition occurs, water concentrates in a defined channel or it concentrates on a slope. This can be a difficult parameter to evaluate where slopes are complex and tend to be broken. The slope percentage is determined with a clinometer and the range displayed on the USLE tables is that inventoried on the unit. As a general rule, slope length decreases as slope increases in steepness.

P = Management Practice factor which is held at a constant of one unless some type of erosion control practice like contour plowing or pitting is done.

C = The cropping management or plant cover factor. This coefficient is based on three distinct but interrelated factors:

(1) Canopy cover which is the amount of leaves and branches that does not directly contact the soil. The effect of canopy is that it reduces the erosibility of the rainfall by intercepting it. It is based on the average height of the drip zone which is the height above ground where the shrub or tree cover reaches its maximum diameter.

(2) The vegetation and litter in direct contact with the soil surface. Erosion is a function of the amount of exposed soil. Cover, such as perennial grasses, litter, slash, logs, and surface rock protects soil from the erosive forces of raindrop impact and runoff. Where management practices such as exclusion of fire and grazing have reduced ground covers to low levels (e.g., less than 15 to 20 percent vegetation) erosion processes are prevalent and C values are high.

(3) Effects at or beneath the surface. This includes roots, subsurface stems, residual effects of the land-use structure, and organic matter content.

All three factors are determined from data plots inventoried during the survey. In most cases, a range of ground covers is found within a mapping unit. However, seldom is the maximum (potential) found within the survey area except for the relic sites.

Within Region 3, two methods can be employed to determine the C-Factor (3). One option is to let the USLE computer program calculate the C-Factor utilizing a best fit equation. This entails the use of the G (grass) or W (weeds) for a ground cover identifier when developing the tables. The problem with this approach is obvious. When gound covers are reaching potential, and the identifier weeds (W) is used, the model will not reflect the effects of rooting at or beneath the surface, hence the C-Factor is higher than it should be. correspondingly, this contributes to higher soil erosion rates. This situation can be corrected by using the second option which uses three curves that take into account the effects of vegetation. When developing C-factor coefficients where ground covers essentially reflect rock fragments on the surface, high values occur, as increments of ground cover through vegetation are added this value decreases and soil loss values drop. Both methods (i.e., calculation of C-Factor using both the model and the curves) were used in the development of USLE tables for the survey area.

When assumptions concerning the factors of USLE are not completely understood, the evaluation will invariably lead to misapplication. This equation was developed to predict soil loss on an average annual basis and not on a storm-by-storm basis (5). The values used in USLE for a mapping unit are the means established for it. Areas of inclusion soils with different cover factors, as an example, will not be considered. Computed erosion rates are the best available predicitons and should not be considered absolute data, samples or measurements.

Another factor that has not been discussed is the establishment of soil loss tolerance values (T), or commonly referred to as permissible soil loss. Soil T values were originally developed for cropland situations where soil amendments (i.e., fertilizer, lime) are used extensively to improve tilth. Originally Soil T values of one through five tons per acre were used. However, since soil amendments are virtually never used or even contemplated in wildland situations, Soil T values were reevaluated. Table 5 shows the current guide used in assigning soil loss T values (3).

Table-5: Guide for Assigning Soil Loss Tolerance Values (T) to Soils Under Natural Conditions 1/

SMR 2/ STR	Aridic Thermic	Aridic Mesic	Ustic Mesic
0 - 10	1	1	1
10 - 20	2	2	2
20 - 40	2	3	3
40+	2	3	3

1/ Soil managed under natural conditions (forest, grassland, etc.) are for practical purposes non-renewable.

2/ Soil Moisture Regime (SMR), and soil Temperature Regime (STR).

There are several assumptions regarding this table including:

(1) Soil forms at a rate of 1 inch in 300 to 1,000 years.

(2) Weathering of parent rock to form soil of the rooting zone is much slower than the rate to form on A horizon.

If, for example, the rooting depth of the soil is between 20 and 40 inches, and it is inventoried within the pinyon pine-juniper zone (ustic-mesic regime) the maximum rate of soil loss is 3 ton/acre/year. However, on certain mapping units where on-going erosional processes are active, or the A horizon is thin (2 to 4 inches), these T values can be lowered (6). This also applies where restrictive layers are near (within 6 to 10 inches) the soil surface. All of these conditions are present within the survey area, and will be expanded on in later sections of this report.

The objective of the range evaluation for the Sanup Plateau was to establish grazing capability, determine range condition, and establish an estimated capacity. Trend, which is an integral component of range analysis was not determined during this study. To adequately address trend within an allotment, at least several years of data is needed. By definition trend is a measurement of the change in condition over a period of time, hence all of the pace transects will indicate no apparent trend.

The species classification list used to develop range condition ratings is represented in Table 6. This scorecard is the result of previous inventories within the same biotic communities and scorecards already developed for similar areas on National Forest System Lands (7, 8). This list is tentative and as additional data is collected, revisions will be made.

The development of a range score which ultimately lends to range condition class is the result of the proper placement of that plant into the categories of decreaser, increaser, or invader. Decreaser species are those plants that are highly desired by livestock and will be selected first. Given enough time without management, these plants may be entirely eliminated. Increaser species, in most cases, are considered important forage producers, and normally will expand in composition under grazing pressure. The ability of increaser species to withstand higher utilization is greater than the decreasers. Invaders represent plant species that have little or no forage value and occupy sites that used to be dominated with more desirable plants. It is important to understand that in this study area, many sites are occupied with invader species because of edaphic properties. The taaxonomic classifications are such that forage species are prevented from occurring in more than trace amounts.

Within Region 3, there are essentially three types of transects presently used to establish range condition and trend.

1. Parker Three-Step Clusters: This method is instituted for a long-term evaluation of range conditiona and trend. It is a permanent staked transect within a selected key area.

2. Paced Transects: The information collected on pace transects is used to supplement the three-step clusters. The number of paced transects is subject to changes in range condition. These transects are not permanent.

Table -6: Species Classification List Used to Determine Range Condition Within the Sanup Plateau Study area. 1/

I. Decreasers

SYMBOL(S)	SCIENTIFIC NAME 2/	COMMON NAME
Grasses:		
(ANDR-1)	Andropogon	Bluestem species
(Bocu)	Boutelous curtipendula	Side-oats grama
(Boer-1)	Bouteloua eriopoda	Black grama
(Hiri)	Hilaria rigida	Big Galleta
(Mupo-1)	Muhlenbergia porteri	Bush muhly
(Orhy)	Oryzopsis hymenoides	Indian ricegrass
(Pofe, POA)	Poa fendleriana	Muttongrass
(Sihy)	Sitanion hystrix	Squirreltail, Bottlebrush
(Stco-1)	Stipa comata	Needle and thread
(Stde)	Stipa coronata var. depauperata	Needlegrass
(Lyph)	Lycurus phleoides	Wolftail
Forbs: None		
Shrubs (including cacti):		
(Atca)	Artriplex canescens	Four wing saltbush
(Eula)	Ceratoides lanata (Eurotia lanata)	Winterfat
(Cegr)	Canonothus greggii	Desert buckbrush
(Cemo)	Cercocarpus montanus	Mountain mahogany
(Come-1)	Cowania mexicana	Cliffrose
(Erfa)	Eriogonum fasciculatum	California buckwheat
(Fapa)	Fallugia paradoxa (0-15%)	Apache plume
Trees: None		

1/ All plants not identified as to species are to be considered as invaders unless otherwise classified. This list is tentative and is subject to revision.

2/ Nomenclature follows Lehr, J.H. 1978. A Catalogue of the Flora of Arizona Desert Botanical Garden, Phoenix, AZ.

II. Increasers

SYMBOL(S)	SCIENTIFIC NAME 2/	COMMON NAME
Grasses:		
(Star)	Stipa arida	Needlegrass Funeral
(Stsp-2)	Stipa speciosa	Desert Needlegrass
(Hija)	Hilaria jamesii (I-15%)	Galleta
(Spco)	Sporobolus contractus	Spike dropseed
(Spcr)	Sporobolus cryptandrus	Sand dropseed
(Spfl)	Sporobolus flexuosus	Mesa dropseed
(Trel)	Tridens muticus var. elongatus (Tridens elongatus)	Tridens
(Trmu)	Tridens muticus	Tridens Slim
(Bogr)	Boutelous gracilis	Blue grama
Forbs: None		
Shrubs (including cacti):		
(Artr)	Artemisia tridentata (I-5%)	Sagebrush
(Cora-1)*	Coleogyne ramosissima (I-10%)	Blackbrush
(EPHE, Epvi, Epne)	Ephedra	Mormon-tea
(Noli)	Noline bigelovii (I-15%)	Beargrass
(Qutu)	Quercus turbinella	Shrub live oak
(Quun)	Quercus undulata	Wavy leaf oak
(Rhtr)	Rhus trilobata (I-10%)	Squawbush

*Note: Cora was classified as increaser to 10% on shallow soils and then an invader. It was classified as strictly an invader on deeper soils.

III. Invaders

SYMBOL(S)	SCIENTIFIC NAME 2/	COMMON NAME
Grasses:		
(Aris-1)	Aristida	Three-awn species
(Trpu)	Erioneuron pulchellus (Tridens pulchellus)	Fluffgrass
(Muri-1)	Muhlenbergia richardsonii	Mat muhly
(Scbr)	Scleropogon brevifolius	Burrograss
Forbs:		
(Ardr-2)	Artemisia dracunculus	False tarragon
(Arlu)	Artemisia ludoviciana	Lyre-leaf sage
(Bamu)	Baileya multiradiata	Desert marigold
(Copa)	Comandra pallida	Bastard toadflax
(Dyac)	Dyssodia acerosa	Dogweed
(ERIG)	Erigeron	Fleabane
(Erin-2)	Eriogonum inflatum	Desert trumpet
(Hasp)	Haplopappus spinulosus	Spiny goldenweed
(Hylu)	Hymenopappus filifolius var. lugens	Rubberweed
(Hyac)	Hymenoxys acaulis	Nostem Rubberweed
(Lase)	Lactuca serriola	Prickly lettuce
(LEPI)	Lepidium montanum	Peppergrass
(Leer, Asar)	Leucelene ericoides (Aster arenosus)	White Aster
(Lile)	Linum lewisii	Flax
(MACH)	Machaeranthera	Purple aster
(Meal-2)	Mentzelia albicaulis	White-stem stickleaf
(MENT-1)	Mentaeliz	Stickleaf
(PENS)	Penstemon	Beard tongue
(PHLO)	Phlox austromontana	Phlox

III. Invaders (Continued)

SYMBOL(S)	SCIENTIFIC NAME 2/	COMMON NAME
Forbs:		
(SHPA)	Sphaeralcia	Globemallow
(Stpi)	Stanleya pinnata	Prince's plume
Shrubs Including cacti):		
(AGAV, Agut)	Agave utahensis	Utah century plant
(Arpu-2)	Arcostaphylos pungens	Manzanita
(Befr)	Berberis fremontii	Algerita, Desert holly
(CHRY-1, Chna, Chvi)	Chrysothamnus	Rabbitbrush
(Ecen)	Echinocereus engelmannii	Hedgehog
(Ectr)	Echinocereus troglochidiatus	Hedgehog
(Enfa)	Encelia farinosa	Brittlebush
(ERIO-1)	Eriogonum	Buckwheat
(Glne)	Glossopetalon nevadense	Nevada Greasebush
(GUTI, Gusa)	Gutierrezia	Snakeweed
(LYCI, Lyan, Lypa-1)	Lycium	Wolfberry
(Mosc)	Mortonia scabrella	Scurfy mortonia
(OPUN, Opph)	Opuntia	Prickly pear cactus
(CHOL, Opac)	Opuntia	Cholla, Buckhorn cholla
(Pain-1)	Parthenium incanum	Mariola
(Prfa)	Prunus fasciculatum	Desert Peach
(Thmo-2)	Thamnosma montana	Turpentine bush
(YUCC, Yuba)	Yucca	Datil Yucca
(Yuan)	Yucca angutissima	Fineleaf Yucca
(Yubr)	Yucca brevifolia	Joshua-tree Yucca

III. Invaders (Continued)

SYMBOL(S)	SCIENTIFIC NAME 2/	COMMON NAME
Trees:		
(Chli)	Chilopsis linearis	Desert willow
(Juos)	Juniperus osteosperma	Utah juniper
(Pimo)	Pinus moophylla	Singleleaf pinyon

3. Ocular Estimates: Once measured transects are completed and scored, ocular estimates of range condition and trend are made using measured transects as a guide.

The information collected using any of the three methods is essentially the same. One benefit of the three-step cluster is that it is virtually the only way that trend can be ascertained for a specific site.

Information taken on paced and ocular transects includes, species composition, forage cover, plant vigor, vegetation condition, soil stability, ground cover, and forage production.

Grazing capability is the ability of a given land area to support grazing by domestic livestock on a sustained yield basis (8). Areas are divided into three capability classifications:

(1) Areas that are incapable of being grazed (NC): This designation applies to steep, inaccessible slopes, areas not capable of producing vegetation, and areas that are not capable of producing more vegetation than is needed to prevent erosion rates that exceed allowable rates (8).

(2) Areas that have potential for grazing (PC): This designation applies to areas where current on-site soil loss exceeds allowable soil loss because it lacks sufficient effective ground cover to protect the soil or where available forage is lacking. These sites generally contain minimal forage production but have the potential to become stable, forage producing sites (8).

(3) Areas that are suited for grazing (FC): This designation applies to areas that are stable in respect to on-site soil loss and is where the majority of livestock grazing is occurring (8).

Every range produces forage which occurs in patches, zones, or belts depending upon ecological site factors. The objective of analyzing production is to establich an estimated grazing capacity that will allow plants to meet their physiological growth requirements while considering associated multiple uses (e.g., wildlife and soil concerns).

Production and utilization surveys evaluate those areas where forage is being produced and how it is being utilized (8). Only desirable, perennial forage species are clipped and evaluated. Because species vary with changes in vegetative type and range condition, the amount of production will change accordingly. Production was recorded regardless of capability classification (i.e., NC, PC, FC).

Allowable use is determined from proper use and is the level of grazing utilization that can be permitted without damage to the plants on an area when all influencing factors are considered (8). Allowable use is limited by range condition, management intensity, soil stability, water distribution, terrain and season of use. As an example, if the key species to be grazed is black grama, the allowable use of this species in fair or better rangeland is 30 to 40 percent. If range conditions are poor, the allowable use accordingly will drop to protect the growth requirements of the plant.

Grazing capacity is the total number of domestic animal unit months (AUMS) an area can support on a sustained yield basis without damage to the range or other related resources. Normally, forage production data is not used in determining grazing capacity. Capacities are determined through evaluation of existing livestock numbers and their resulting levels of forage utilization (8). Since the Sanup Plateau Study Area lacks data on existing forage consumption, total actual use, and season of use, it is virtually impossible to use this methodology to determine capacity. Therefore, the incorporation of total production and allowable use was used to determine grazing capacity for this evaluation. As R-3 guidelines relate only to desirable perennial forage species, production by annuals was not recorded or used in the establishment of an estimated capacity.

Data analysis was conducted on the collected information to quantitatively describe the characteristics of the data, objectively assess differences and/or similarities between sets of data, establish the confidence levels around the mean, and to draw conclusions.

Of the many variables collected during the inventory, it was felt that depth of A horizon, total ground cover, total soil depth, range score, and total production would reflect the impacts of past grazing if any had occurred between grazed and ungrazed (e.g., relict conditions) situations. Of the five parameters, depth of A horizon, total ground cover, and total soil depth were collected from the standard soil profile description while range score and forage production were obtained from the pace transect form.

Originally, a rather comprehensive inventory methodology was proposed in an attempt to gain a 90 percent confidence level, or higher, on the collected information (9). Although this system was adhered to, it was concluded that because the survey area was so large and these methods were labor intensive as well as expensive, the inventory would intensify its data collection on the key areas. In other words, those areas on steep inaccessible slopes or where the area was classified as NC for some other reason (e.g., areas that lack forage and the potential for increase is not possible), although sampled, were not sampled to the same intensity as the key areas.

The extreme variability in habitats in Region 3 makes it physically impossible to install sufficient clusters to provide information on an overall allotment; therefore, clusters are strategically placed in key areas to provide convenient index (8). This situation is also appropriate with respect to range transects inventoried with the Sanup Plateau. The effect this has on data analysis is that in the case of several parameters measured, there is lower confidence levels around the mean and in some cases none. Regardless of what the confidence levels are, this value will be stated within the map unit description form found in the Results section of this report.

Although there are currently a multitude of statistical packages which can enable the analysis of data, BASICSTAT was chosen due to its simplicity in format and more importantly the information it provides (10). This program displays the following outputs which include the sum, sum of squares, mean, variance, standard deviation, standard error around the mean, and coefficient of variation.

Using Stein's Equation in conjunction with the BASICSTAT outputs confidence levels can be established around the mean. Stein's Equation is defined as:

Where:

N = Sample size needed
S^2 = Standard deviation squared
t^2 = Value from student's t table squared for N-1 degrees of freedom at specified confidence level.
E^2 = Desired error squared

When the number of samples N is equal to or less than the number which has already been collected, the data is at the specified confidence level previously identified. If a particular parameter which was collected did not meet the 90 percent confidence level, the probability value was dropped and correspondingly the critical value obtained from the student's t table would be lower. This enables the establishment of some level of confidence in the information.

The desired error for all the variables was established at 20 percent. Although this appears to be somewhat high, the means for most of the measured parameters was so low that the upper and lower limits showed very little variation around the mean. Depth of A horizon for example, using a 10 percent desired error would result in a range around the mean of .10 to .30 inches. This type of value has no meaning since in most cases depths are either rounded up or down to the nearest whole number. The use of the higher desired error not only enable the establishment of higher confidence levels but also achieved upper and lower limits around the mean that were more realistic.

RESULTS

This section of the report presents the results of the range and terrestrial ecosystem inventories under the broad headings of: (1) Terrestrial Ecosystem Evaluation and Interpretations and (2) Range Evaluation and Interpretations. However, it should be noted that because range and soil inventories are tied so closely together, reference to information concerning both will be found within each section. This is especially true within the map unit form which takes into account both range and soils information.

Terrestrial Ecosystem Evaluation and Interpretations

A total of 137 soil profile descriptions were taken during the course of inventory. Sixteen soil mapping units were identified of which nine occurred as complexes, two as associations, one consociation, one undifferentiated group, and the remaining three as miscellaneous land-types.

Figure 3 and Figure 4 represent both the geologic cross sections that were found within the Sanup Plateau and the landscape positions the various map units were inventoried on.

Mapping units 182, 192, and 195 were found on nearly level to moderately steep valley plains and adjacent sideslopes. The soils in these units can be characterized as moderately deep to deep, moderately developed, and of coarse texture. In unit 182, a shallow component was inventoried although it makes up less than 20 percent of the association. These three units represent the grassland biotic communities and represent the highest grazing potential found on the Sanup. These units make up approximately six percent (11,222 acres) of the Sanup Plateau Study Area, and are rated moderate to high for both range forage production potential and revegetation suitability.

Mapping unit 178 was found on lower toe slopes, and occupied an intermediate position between the very steep talus and nearly level bench soils. Typically this unit has two soil taxonomic classifications, one moderately deep to deep over bedrock, and the other shallow to bedrock. These soils are characterized as weakly developed, and containing high percentages of internal coarse fragments (greater than 60 percent). Where this mapping unit occurs, it is dominated by desert shrub species, in particular blackbrush. This unit makes up approximately seven percent (14,345 acres) of the Sanup Plateau Study Area and is rated low in both range forage production potential and revegetation suitability.

Mapping units 183, 184, and 194 were found on nearly level to steep benches within the Sanup Plateau Study Area. Units 184 and 194 are characterized as being very shallow, weakly developed, and containing a high percentage of internal coarse fragments. Both units were found with greater than 15 percant rock outcrop. Unit 183, however, lacked the rock outcrop miscellaneous land type and was inventoried as a two soils complex with both taxons being shallow over bedrock. Typically, one taxon contains over 35 percent coarse fragments in the profile whereas, the other lacks it. These units are dominated by desert shrub species, especially blackbrush, and make up 12 percent (23,453 acres) of the Sanup Plateau Study Area. The range forage production potential and revegetation suitability is low for these units.

Figure-3. Geologic Cross Sectional with Appropriate Map Units for Lands Inventoried Within the Parashaunt, Home Ranch, and Dripping Springs Allotments

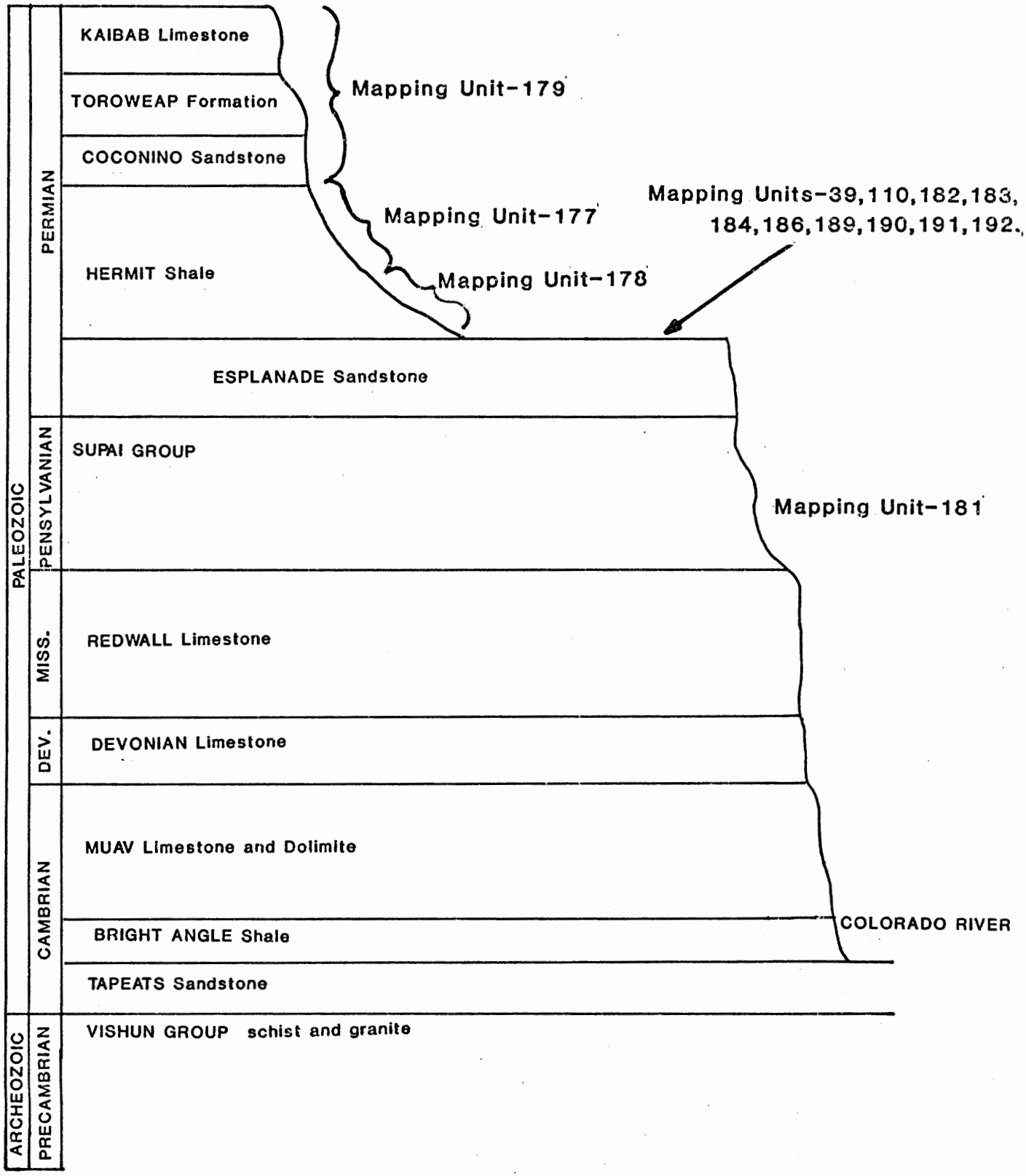
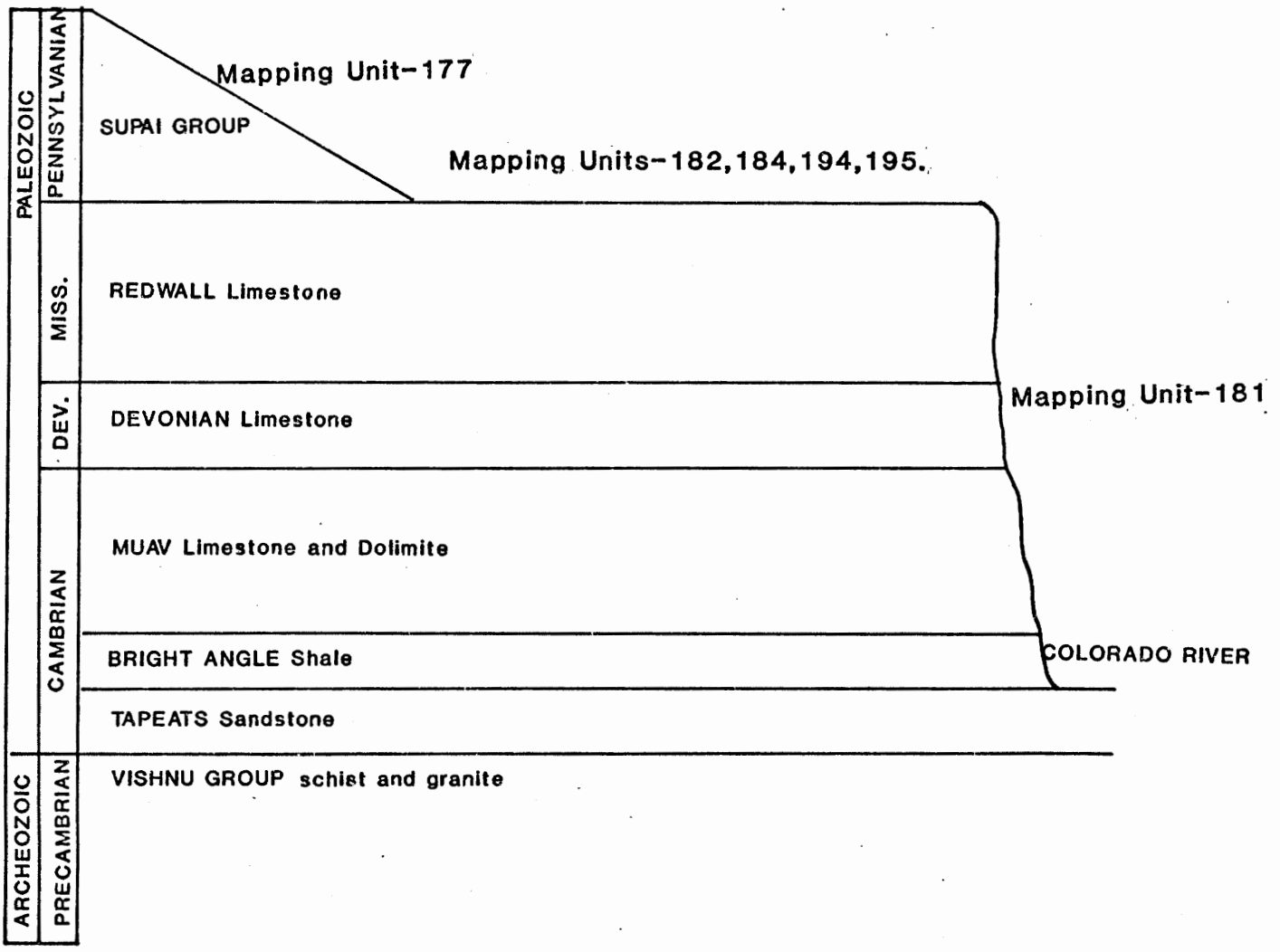


Figure-4. Geologic Cross Sectional with Appropriate Map Units for Lands Inventoried Within the Diamond Bar Allotment.



Mapping unit 39 was found on gently to moderately sloping valley plains bounded by steep and very steep ascending scarp slopes. This unit is confined to the large canyons on the northern portion of the survey area (i.e., Dry Canyon, Tincannibits Canyon). This unit is characterized as very deep over bedrock, weakly developed, and containing over 60 percent internal coarse fragments within the control section. All of the horizons display horizontal stratification of coarse fragments which is indicative of water borne deposits. The biotic communhities found in this unit are diverse and many. This is the result of the active erosional processes (natural) that are occurring, and the relatively higher water available to plant communities. Riparian species, such as Chilopsis linearis (desert willow), are found but not to a very large extent. The more common woodland species include single-leaf pinyon pine and Utah Juniper. The shrub community is dominated by such species as blackbrush, Overcus turbinella (Apache Plume). this large diversity of shrub communities was found only within the large drainages, and these areas make up less than one percent (577 acres) of the Sanup Plateau Study Area. The range forage production potential and revegetation suitability is low for this unit.

Mapping unit 186 was designed to account for the large burned area on the western portion of the study area. Typically, this unit was found on nearly level to moderately steep benches, although there were portions found on steep escarpment sideslopes. This unit is characterized as shallow over bedrock, moderately developed, and containing variable concentrations of internal coarse fragments. As with unit 183, 186 was determined to be a two soils complex. Typically, one taxon contains over 35 percent coarse fragments in the profile whereas, the other taxon lacks it. This unit is dominated by such annuals as Bromus tectorum (cheatgrass) and Bromus rubens (foxtail chess), and makes up two percent (3,875 acres) of the Sanup Plateau Study Area. the range forage production potential and revegetation suitability is low in this unit.

Units 189, 190, and 191 were found on nearly level to moderately steep benches on the Sanup Plateau. Both units 190 and 191 are characterized as shallow or very shallow over bedrock, weakly developed, and containing greater than 35 percent coarse fragments in the control section. Both units were inventoried with greater than 15 percent rock outcrop. Unit 189, however, lacked the rock outcrop miscellaneous land type and was determined to be a two soils complex. Typically, the taxons found in 189 are moderately deep or shallow over bedrock, coarse textured, and lack high concentrations of rock fragments in the control section. All three units are dominated by the woodland species including single-leaf pinyon and Utah Juniper with the dominant shrub species being blackbrush. These units comprise 12 percent (22,448 acres) on the Sanup Plateau Study Area. In units 190 and 191, the range forage production potential and revegetation suitability is low whereas Unit 189 was rated moderate to low in respect to forage production potential and revegetation suitability.

Unit 177 was found on the steep talus slopes above the Sanup Plateau and below the Coconino sandstone. Due to the wide variability of inventoried vegetation, soil types, and steep slope inclinations, this unit was mapped as an undifferentiated group. The soils can be characterized as weakly developed and containing high percentages of surface rock fragments. This unit comprises 8 percent (15,957 acres) of the survey area. The forage production potential and range revegetation suitability in this unit is low.

The remaining three units (i.e., 110, 179, and 181) were all inventoried as miscellaneous land types. They represent the steep vertical cliffs above or below the Sanup Plateau (i.e., 179 or 181) or support very low densities of herbaceous vegetation (110). These three units make up 53 percent (100,813 acres) of the survey area.

Table 7 lists the soil taxonomic classifications for the individual mapping units as well as phase designation, climatic category, vegetation, climax category, and slope range.

Table- 7. Sanup Plateau Terrestrial Ecosystem Survey Mapping Legend

USDA-FS
R-3
12/83

MAP SYM.	MAP UNIT NAME SOIL TAXONOMIC	PHASE	CLIMATIC CATEGORY	VEGETATION TAXONOMIC	CLIMAX CATEGORY	SLOPE/ KIND M.U.
39	Typic Ustifluvents, sandy-skeletal, mixed mesic	deep very stony sandy loam	LSC 4 0	Pimo/Juos/Chli/ Fapa	Topographic	0 to 15% Complex
	Riverwash			Barren		
110	Badlands		LSC 2 0	Barren		0 to 40%
	Rock Outcrop			Barren		
177	Ustorthents		LSC 3 & 4	Juos/Artr2	Climatic Topographic	40% to vertical, Undifferentiated group
	Torriorthents		LSC 1 & 2	Cora/EPHE/YUCC Yubr/Cora	Climatic Climatic	
	Rock Outcrop			Barren		
178	Ustollic Calciorthids, loamy-skeletal, carbonatic m	very cobbly sandy loam	LSC 2	Cora/EPHE/YUCC	Climatic	0 to 40% Complex

MAP SYM.	MAP UNIT NAME SOIL TAXONOMIC	PHASE	CLIMATIC CATEGORY	VEGETATION TAXONOMIC	CLIMAX CATEGORY	SLOPE/ KIND M.U.
179	Rock Outcrop			Barren		80% to vertical slopes
181	Rock Outcrop			Barren		80% to vertical slopes
182	Ustollic Calciorthids, coarse-loamy, mixed, mesic	moderately deep fine sandy loam - - -	LSC 2 0	Atca/Eula5/Stco/ Boer4	Topographic edaphic	0 to 15% Association
	Lithic Ustollic Calciorthids loamy, mixed, mesic	shallow gravelly fine sandy loam	LSC 2 0			
183	Lithic Ustollic Calciorthids loamy, carbonatic, mesic	- - - very gravelly fine sandy loam - - -	LSC 2 0	Cora/EPHE/YUCC	Climatic	0 to 15% Complex
	Lithic Ustollic Calciorthids loamy-skeletal, carbonatic, mesic	- - - very gravelly fine sandy loam	LSC 2 0	Cora/EPHE/YUCC	Climatic	
184	Lithic Ustic Torriorthents, loamy-skeletal, carbonatic mesic	very shallow very gravelly fine sandy loam - - -	LSC 2 0	Cora/EPHE/YUCC	Climatic	15 to 40% Complex
	Rock Outcrop			Barren		

Table- 7. (Continued)

USDA-FS
R-3
12/83

MAP SYM.	MAP UNIT NAME SOIL TAXONOMIC	PHASE	CLIMATIC CATEGORY	VEGETATION TAXONOMIC	CLIMAX CATEGORY	SLOPE/ KIND M.U.
186	Lithic Ustollic Calciorthids loamy, carbonatic, mesic	gravelly very fine sandy loam - - -	LSC 2 0	Brru/Brte	Climatic	0 to 15% complex
	Lithic Ustollic Calciorthids loamy-skeletal, carbonatic, mesic		LSC 2 0			
189	Typic Ustochrepts, coarse-loamy, mixed, mesic	moderately deep - - - very fine sandy loam - - -	LSC 4 0	Pimo/Juos/Cora/ Gusa	Zootic Topographic	0 to 15% complex
	Lithic Ustochrepts, loamy, mixed, mesic	shallow gravelly very fine sandy loam - - -	LSC 4 0			
190	Lithic Ustorthents, loamy-skeletal, mixed (calcareous), mesic	- - - gravelly fine sandy loam - -	LSC 4 0	Pimo/Juos/Cora	Topographic	0 to 15% complex
	Rock Outcrop			Barren		

Table-7. (Continued)

USDA-FS
R-3
12/83

MAP SYM.	MAP UNIT NAME SOIL TAXONOMIC	PHASE	CLIMATIC CATEGORY	VEGETATION TAXONOMIC	CLIMAX CATEGORY	SLOPE/ KIND M.U.
191	Lithic Ustorthents, loamy-skeletal, mixed (calc.) mesic	very shallow very gravelly sandy loam - - -	LSC 4 0	Pimo/Juos/Cora	Topographic	15 to 40% complex
	Rock Outcrop			Barren		
192	Typic Ustochrepts, coarse-loamy, mixed mesic	- - - - - - very fine sandy loam - - -	LSC 4 0	Pimo/Atca/Stco/ Boer	Topographic Edaphic	0 to 15%
194	Lithic Ustic Torriorthents, loamy-skeletal, carbonatic, mesic	very shallow very gravelly fine sandy loam - - -	LSC 2 0	Cora/EPHE/YUCC	Climatic	0 to 15% complex
	Rock Outcrop			Barren		
195	Typic Calciorthids, fine-loamy, mixed thermic	- - - very gravelly very fine sandy loam - - -	LSC 1 0	Yubr/Cora/Stco/ Boer	Topographic	0 to 15% Association
	Typic Calciorthids, loamy-skeletal, carbonatic thermic	moderately deep extremely gravelly very fine sandy loam - - -	LSC 1 0	Yubr/Cora	Climatic	

Although the random selection of data points is emphasized during inventory process of the Sanup Plateau Study, a representative site is selected that best fits the central concept of the taxon. This site (pedon) is described and the remaining ones along with the field notes, observations, and transects are used to establish the range in characteristics of the taxonomic unit (Appendix B). Table 8 lists the taxonomic components found within the map units established during the Sanup Plateau inventory. Legal descriptions were projected into areas lacking section lines.

Table 8. Sanup Plateau Terrestrial Ecosystem Survey Taxonomic Legend

USDA FS
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Forest: Kaibab National Forest
Survey Area: Grand Canyon National Park (Sanup Plateau)

Taxonomic Classification	Climatic Category	Vegetation	Climax Category	Map Unit	No. Site	Representative Site
Aridisols						
Orthids						
Calciorthids						
Lithic Ustollic						
loamy, mixed mesic	LSC 2 0	Atca/Eula/Stco/Boer	Topographic Edaphic	182	3	SW 1/4 NW 1/4 Sec. 30, T.31N. R.13W.
loamy, carbonatic mesic	LSC 2 0	Cora/EPHE/YUCC Brru/Brte/Vuoc	Climatic Fire	183 186	3	SE 1/4 SW 1/4 Sec. 7, T.31N., R.14W.
loamy-skeletal, carbonatic mesic	LSC 2 0	Cora/EPHE/YUCC Brru/Brte/Vuoc	Climatic	178,183	3	NE 1/4 NE 14 Sec. 9, T.31N., R.14W.
Calciorthids						
Typic						
fine-loamy, mixed thermic	LSC 1 0	Yubr/Cora/Stco/	Topographic Edaphic	195	3	NW 1/4 SW 1/4 Sec. 18, T.30N. R.15W.
loamy-skeletal, carbonatic, thermic	LSC 1 0	Yubr/Cora	Climatic	195	3	SW 1/4 SW 1/4 Sec. 7, T.30N., R.15W.

Table- [illegible] (Continued)

SDA
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12/14/83

Taxonomic Classification	Climatic Category	Vegetation	Climax Category	Map Unit	No. Site	Representative Site
Calciorthids Ustollic						
coarse-loamy, mixed mesic	LSC 2 0	Atca/Eula/Stco Boer	Topographic Edaphic	182	3	SE 1/4 SW 1/4 Sec. 2, T.31N., R.15W.
loamy-skeletal, carbonatic, mesic	LSC 2 0	Cora/EPHE/YUCC	Climatic	178	3	SE 1/4 SW 1/4 Sec. 15, T.31N. R.10W
Entisols fluvents Ustifluvents Typic						
sandy-skeletal, mixed, mesic	LSC 4 0	Pimo/Juos/Chli/ Cora	Topographic	39	3	NW 1/4 NW 1/4 Sec. 20, T.31N. R.13E.
Orthents Torriorthents	LSC 1,2	Cora/EPHE/YUCC Yubr/Cora	Climatic	177	6	Not required at this level of classification
Torriorthents Lithic Ustic						
loamy-skeletal, carbonatic, mesic	LSC 2 0	Cora/EPHE/YUCC	Climatic	184, 194	3	SW/1/4 NW 1/4 Sec. 7, T.30N., R.15W.
Orthents Ustorthents	LSC 3 & 4	Pimo/Juos/Cora Juos/Artr		177 177	2 2	Not required at this level of classification

Taxonomic Classification	Climatic Category	Vegetation	Climax Category	Map Unit	No. Site	Representative Site
rthents storthents Lithic						
loamy-skeletal, mixed (Calcareous), mesic	LSC 4 0	Pimo/Juos/Cora	Topographic	190, 191	5	NW 1/4 NW 1/4 Sec. 36, T.31N. R.14W.
nceptisols Ochrepts stochrepts Lithic						
loamy, mixed, mesic	LSC 4 0	Pimo/Juos/Cora/ GUTI	Topographic	189	3	NE 1/4 SE 1/4 Sec. 3, T.2.N., R.13W.
stochrepts Typic						
coarse-loamy, mixed mesic	LSC 4 0	Pimo/Juos/Cora GUTI	Topographic Zootic	189	6	NW 1/4 NE 1/4 Sec. 11, T.29N. R.13W.
		Pimo/Atca/Stco/ Boer	Topographic Edaphic	192		

The terrestrial ecosystem and range map unit evaluation describes the various biotic and abiotic variables inventoried within the unit. The mapping units are in numerical order and each contain the following informaiton:

Map Symbol, Mapping Unit Name
Landform
Geology
Slope
Acreage Extent Within Sanup Plateau Study Area
Percentage of Sanup Plateau Study Area
Average Precipitation
Average Elevation
Soils and Map Unit Characteristics
Range Evaluation

Landform: Describes the features that make up the surface of the mapping unit.

Geology: Denotes the dominant formation that has contributed to the pedogenesis of that taxonomic classification.

Slope: Indicates the range of slope inclinations that are found within the mapping unit. Slope separations are made when significant changes in management occur.

Acreage Extent Within Sanup Plateau Study Area: The area in acres that a mapping unit occupies.

Percentage of Sanup Plateau Study Area: The area in percent that a mapping unit occupies.

Average Precititation: This is based on isohyetal maps which gives the yearly average for the survey area.

Average Elevation: The mean elevation that the mapping unit occurred at.

Soils and Map Unit Characteristics: Describes the type of mapping unit and important morpohological characteristics that influence grazing capability and capacity.

Range Evaluation: Relates important range data that was collected on that mapping unit (i.e., production, grazing capacility, range condition) and the effects on capacity within the Sanup Plateau Study Area.

Mapping Unit 39: Typic Ustifluvents, LSC, 4, 0, sandy-skeletal, mixed, mesic, deep, very stoney sandy loam - Riverwash complex: Pimo/Juos/Chli/Fapa, 0 to 15 percent slopes.

Photo #1: Mapping Unit 39 was confined to large ephermal drainages on the northern portion of the survey area. Approximately 30 percent of the unit is comprised of the miscellaneous land type riverwash. As the photo indicates, there is a large percentage of stones and boulders on the surface which influenced the phase designation of this unit to very stony. Vegetation is quite diverse and included such shrub species as shrub live oak, Apache Plume, desert buckbrush, and Arcostaphylos pungens (manzanita).

Landform: Nearly level to strongly sloping valley plains.

Geology: Mixed alluvial and colluvial material from Hermit Shale, Coconino Sandstone, Toroweap and Kaibab Limestones.

Slope: 0 to 15 percent

Acreage Extent Within Survey Area: 577 acres

Percent of Survey Area: Not significant

Average Precipitation: 35 centimeters

Average Elevation: 1525 meters

Soils and Map Unit Characteristics: This map unit consists of a single taxonomic component in combination with a miscellaneous land-type. It occurs on gently to strongly sloping valley plains bounded by steep and very steep ascending scarp slopes. Soils are characterized as moderately deep to deep, coarse textured, weakly developed, and containing a high percentage (in excess of 35 percent) of internal coarse fragments. The soil taxonomic component belongs to the sandy-skeletal, mixed, mesic Typic Ustifluvent family and comprises 70 percent of the unit with the remaining 30 being the miscellaneous land-type riverwash.

The vegetative taxonomic name includes the species single leaf pinyon pine, Utah Juniper, desert willow, and Apache plume. This plant association is considered a topographic-edaphic climax community for the following reasons:

1. Although sheet and rill erosion was not considered accelerated, gullies and large debris flows were found throughout the area where this unit was mapped. This is due mostly to the landscape position with adjacent steep and very steep side slopes, channeling large amounts of storm flow into a narrow channel bottom. This topographic effect essentially prevents the vegetation from ever achieving a stable climax community.

2. The soil physical and morophological characteristics (i.e., coarse textured with a high percentage of rock fragments in the profile) that are represented in the taxonomic classification are inherently excessively well-drained. Apache plume is indicative of this type of situation.

The amount of canopy cover by any given species inventoried in this unit is highly variable.

Of the three soil parameters (i.e., total effective ground cover, depth of A horizon, and total depth) selected for statistical analysis, a total of seven were collected randomly for ground cover and eight for both depth of A horizon and total soil depth. With respect to total ground cover, there is a 90 percent probability that the population mean of 77 percent will be covered by the interval 61.60 percent to 92.40 percent. There is a 90 percent probability for depth of a horizon that the population mean of 3.25 inches will be covered by the interval 2.60 inches to 3.90 inches. Lastly, there is also a 90 percent probability for total soil depth that the population mean of 59.50 inches will be covered by the interval 47.60 inches to 71.40 inches.

Range Evaluation: This unit was classified as full capability with respect to soil concerns and a capacity estimate was determined. Eight range pace transects were taken in this unit with the dominant woodland, shrub, and graminoid species being Utah Juniper, Gutierrezia spp., (snakeweed), and black grama respectively. However, as alluded to under soil and map unit characteristics, this unit displayed a wide variety of inventoried species. Other dominant shrubs included blackbrush, desert buckbrush, shrub live oak, Artemisia tridentata (big sagebrush), Agave utahensis (Utah agave), and Apache plume. Forage species consisted mainly of black grama, but Hilaria jamesii (galleta) and Oryzopsis hymenoides (Indian ricegrass) were also inventoried.

Of the two range parameters (e.g., total forage production and range score) selected for analysis, only range score was determined. Only two transects accounted for production which seriously hampers any analysis. The forage production on the two transects where it was collected was estimated at 25 and 75 pounds per acre. Overall, production is quite variable in this unit with many areas dominated by woodland and shrub species with few perennial grasses interspersed with small isolated areas adjacent to the drainage bottom having higher amounts. In most cases, the woodland and shrub species out-compete the forage plants and effectively dominate the sites. Of the eight range pace transects, two rated very poor and six rated poor. Of special interest are P-32 and P-86 (Appendix A) which scored a high poor and almost made fair condition class.

Mapping Unit 110: Badlands - Rock Outcrop, 0 to 40 percent slopes.

Photo #2: Mapping unit 110 is a highly erosive miscellaneous land type which has formed from Hermit Shale. Due to soil restrictions, this unit will never achieve any form of landscape stability nor will it produce forage in any significant amounts.

Landform: Nearly level to steep benches and escarpment sideslopes.

Geology: Hermit shale

Slope: 0 to 40 percent

Acreage Extent Within Survey Area: 2,019

Percent of Survey Area: 1 percent

Average Precipitation: 35 centimeters

Average Elevation: 1465 meters

Soils and Map Unit Characteristics: This unit was mapped with the miscellaneous land type classification of badlands. Areas with this designation had active on-going erosional processes including sheet, rill and gully. This is due to the soft geologic material (Hermit shale), relief (10 to 50 meters) and the high percentages of rock outcrop which channel storm flow across it. Small inclusions of identifiable soil were found within the unit but not mapped.

Range Evaluation: This unit was classified as no capability and an estimated capacity was not determined. This was due to the lack of available forage and active erosional processes.

Mapping Unit 177: Ustorthents, LSC, 3 & 4 and Torriorthents, LSC, 1 & 2, very steep: Pimo/Juos/Cora,Cora/EPHE/YUCC, Yubr/Cora, 40 to vertical slopes

Photo #3: Steep colluvial talus slopes which support varying concentrations of woodland and shrub species were inventoried above the esplanade bench. Due to the inherent unproductive nature of the taxonomic components, steep slope, and inexcessability of the majority of acres of this unit, it was classified as no capability.

Landform: Steep to very steep talus and escarpment sideslopes

Geology: Mixed colluvial material from Coconino, Toroweap, and Kaibab Formations

Slope: 40% to vertical

Acreage Extent Within Survey Area: 15,957

Percent of Survey Area: 8 percent

Average Precipitation: 30 centimeters

Average Elevation: 1675 meters

Soils and Map Unit Characteristics: Because of the steep and very steep slope inclinations, use and management on areas where this unit was mapped are essentially the same; therefore, it was designed as an undifferentiated group. Ustorthents were associated with the woodland ecosystem whereas the Torriorthents, the semi-desert shrub communities.

Range Evaluation: This unit was classified as having no capability and an estimated capacity was not determined. This was due, in part, to the steep inexcessible slopes, lack of water, limited forage, and unstable soil conditions. Mass wasting in the form of gravitational creep and debris flows were evident throughout the unit.

Mapping Unit 178: Ustollic Calciorthids, LSC, 2, 0, loamy-skeletal, carbonatic, mesic, very cobbly sandy loam - Lithic Ustollic Calciorthids, LSC, 2, 0, loamy-skeletal, carbonatic, mesic, extremely gravelly sandy loam complex: Cora/EPHE/YUCC, 0 to 40 percent slopes

Photo #4: Mapping unit 178 in foreground with units 182 and 184 in background. This unit typifies the semi-desert shrub communities within the Sanup Plateau with a high percentage of the existing canopy cover being comprised of blackbrush. Desirable forage species are non-existent or at best found in trace amounts.

Landform: Nearly level to moderately steep benches, and talus sideslopes

Geology: Mixed colluvial material from Coconino, Toroweap, and Kaibab Formations

Slope: 0 to 40 percent

Acreage Extent Within Survey Area: 14,345 acres

Percent of Survey Area: 7 percent

Average Precipitation: 25 centimeters

Average Elevation: 1525 meters

Soils and Map Unit Characteristics: This map unit consists of two taxonomic components that occur in such an intricate pattern that they are not separable at the scale used for mapping. It occurs on nearly level to moderately steep toe slopes adjacent to very steep ascending scarp slopes. The central concept from a landscape position standpoint is that this unit occurs at an intermediate position between the very steep talus slopes (Unit 177) and the nearly level bench soils (i.e., Units 182, 183, 184, 190, 191, and 192). Soils are characterized as being moderately deep and shallow, coarse to medium textured, moderately developed, containing a high percentage of interval coarse fragments, and displaying high concentrations of free calcium carbonate. Ustollic Calciorthids, LSC, 2, 0, loamy-skeletal, carbonatic, mesic, very cobbly sandy loam comprises 70 percent of this unit, whereas the Lithic Ustollic Calciorthids, LSC, 2, 0, loamy-skeletal, carbonatic, mesic, extremely gravelly sandy loam makes up the remaining 30 percent.

The vegetative taxonomic name includes the species blackbrush, Ephedra spp., (Mormon Tea) and YUCC spp., (Yucca). This plant association is considered within the climatic climax category and is the dominant semi-desert shrub community within the inventory area as well as the Park. Typically, blackbrush makes up over 90 percent of the existing canopy cover within any given sample plot.

Of the three soil parameters (i.e., total effective ground cover, depth of A horizon, and total depth) selected for analysis, a total of nine were collected randomly for ground cover and ten for both depth of A horizon and total soils depth. With respect to total ground cover, there is a 90 percent probability that the population mean of 59 percent will be covered by the interval of 47 percent or 71 percent. In regard to depth of A horizon, there is an 80 percent probability that the population mean of 2.20 inches will be covered by the interval 1.80 inches to 2.60 inches. Lastly, there is also an 80 percent probability for total soil depth that the population mean of 15 inches will be covered by the interval 12 inches to 18 inches. One problem associated with total soil depth is that this unit was designed as a two soils complex with the dominate taxon being moderately deep over bedrock. The data however, supports the conclusion that this unit is predominantly shallow (i.e., less than 20 inches). The reason for this apparent contradiction is that of the total 10 samples taken within the Sanup Plateau, only one had a soil depth inventoried over 20 inches. This situation skewed the data analysis to indicate that the unit was essentially a consociation of a shallow soil. However, the transect information supported the moderately deep component although as with most complexes, the proportions varied appreciably from one delineation to another.

This unit occurs generally throughout the entire survey area except for the Grand Wash Hook portion located south of the Colorado River.

Range Evaluation: This unit was classified as full capability with respect to soil concerns. However, it was classified as potential capacity. This designation was the result of two factors, which included:

1. The existing forage production is extremely low.

2. Since the unit was of predominantly moderately deep soils, there is potential for improvement in forage production.

This classification is tentative and if plot 14-8 #3 on Unit 186 is any indication of the potential forage production and composition change after treatment (i.e., natural fire), it is conceivable that this unit should be no allowable capacity. This particular plot had a range score of three, which places it in the very poor condition class. The forage species following the burn included predominantly annuals such as Bromus tectorum (cheatgrass) and Bromus rubens (foxtail chess).

Ten pace transects were taken on Unit 178 and none had enough hits and/or dot tallies on desirable forage plants to include it with the range composition name. The dominant shrub species was blackbrush with co-dominants being comprised of such species as Thamnosma montana (turpentine bush), Yucca, and Utah Agave.

Of the two range parameters (i.e., total forage production and range score) selected for analysis, only range score was determined. Total forage production was estimated on seven plots and was consistently zero, which prohibits any data analysis. With respect to range score, there is an 80 percent probability that the population mean of 10 will be covered by the interval of 8 to 12. All of the transects inventoried on this unit fall within the classification of very poor condition class. The classification very poor in itself does not necessarily mean that a capacity value cannot be assigned to a given portion of rangeland. But, this situation, in conjunction with an absolute absence of desirable forage species, confirms that at least for the time being, no capacity should be assigned.

Mapping Unit 179: Rock Outcrop - Rubbleland, 80 percent to vertical slopes.

Photo #5: Vertical cliffs of Coconino Sandstone and Kaibab-Toroweap Limestone form rimrock barriers which extend from the top of unit 177 to the edge of the canyon rim. Although there were small identifiable areas of soil supporting a sparse vegetative component, these areas were not mapped.

Landform: Steep and very steep talus and escarpment sideslopes.

Geology: Coconino, Toroweap, and Kaibab Formations.

Slope: 80 percent to vertical

Acreage Extent Within Survey Area: 9,523 acres

Percent of Survey Area: 5 percent

Average Precipitation: 35 centimeters

Average Elevation: 1830 meters

Soil and Map Unit Characteristics: This unit was mapped as a complex of two miscellaneous land types, rock outcrop, and rubbleland. Small inclusions of identifiable soil were noted within the unit but not mapped.

Range Evaluation: This unit was classified as having no capability and an estimated capacity was not determined. This was due to a combination of factors including steep inexcessible slopes, lack of water, limited forage, and inherently unstable soil conditions.

Mapping Unit 181: Rock Outcrop - Rubbleland, 80 percent to vertical

Photo #6: Vertical cliffs and unconsolidated rock debris extend from the lower Supai formation to the Colorado River drainage. Very steep inaccessible areas of shallow soils derived from talus occur as inclusions.

Landform: steep and very steep talus and escarpment sideslopes

Geology: Lower Supai, Redwall, Devonian, Muav, and Bright Angel Formations

Slope: 80 percent to vertical slopes

Acreage Extent within Survey Area: 90,081 acres

Percent of Survey Area: 47 percent

Average Precipitaiton: 25 centimeters

Average Elevation: 1,220 meters

Soils and Map Unit Characteristics: This unit was mapped as a complex of two miscellaneous land types rock outcrop and rubbleland. Small inclusions of identifiable soil were noted within the unit but not mapped.

Range Evaluation: This unit was classified as having no capability and an estimated capacity was not determined. This was due to a combination of factors, including steep inexcessible slopes, lack of water, limited forage, and inherently unstable soil condition.

Mapping Unit 182: Ustollic Calciorthids, LSC, 2, 0, coarse-loamy, mixed, mesic moderately deep, fine sandy loam - Lithic Ustollic Calciorthids, LSC, 2, 0, loamy, mixed, mesic, shallow, gravelly fine sandy loam association: Atca/Eula/Stco/Boer/Guti, 0 to 15 percent slopes.

Photo #7: Unit 182 in foreground with Units 183, 177, and 179 in background. This unit displayed a wide variation in percent composition of decreaser and invader species between ungrazed and grazed sites. Due to the moderately deep and deep taxonomic components coupled with a consistent lack of internal coarse fragments, the inherent productive potential is one of the highest inventoried within the Sanup Plateau.

Landform: Nearly level to strongly sloping valley plains and upland benches

Geology: Supai Sandstone

Slope: 0 to 15 percent

Acreage Extent Within Survey Area: 9,251 acres

Percent of Survey Area: 5 percent

Average Precipitation: 25 centimeters

Average Elevation: 1465 meters

Soils and Map Unit Characteristics: This map unit consists of two taxonomic components that could have been separated at the scale of mapping but were not because it would have detracted significantly from the readability of the maps, and also there was not a significant difference in the measured parameters (i.e., depth of A, range score, ground cover, and forage production) except for soil depth. It occurs on nearly level to strongly sloping valley plains and upland benches. The moderately deep component was found within and adjacent to drainage bottoms, whereas the shallow component occurred on the more upland position. Soils are characterized as moderately deep, and shallow over bedrock, coarse to medium textured, moderate development, and free from high concentrations of rock fragments in the profile. Ustollic Calciorthids, LSC, 2, 0, coarse-loamy, mixed, mesic, moderately deep, gravelly fine sandy loam comprises 80 percent of the unit, whereas the Lithic Ustollic Calciorthids, LSC, 2, 0, loamy, mixed, mesic, shallow, gravelly very fine sand loam makes up the remaining 20 percent.

The vegetative taxonomic name includes the species Atriplex canescens (four-wing saltbush), Ceratoides lanata (winterfat), Stipa comata (Needle and thread) and black grama. Although this plant association falls within the definition of a semi-desert shrub/grassland community, the shrub component makes up a very small percentage of the existing canopy covers, even on relict sites. The use of these shrub species in the vegetative name relates more to the climax category, which in this case is topo-edaphic, than any dominance by the shrub component. This unit represents the largest grassland community inventoried.

Because this unit is one of several in which relict sites were correlated with grazed sites, the analysis of data separated the two. This was done to determine if grazing has had an impact on range and soil resources.

As with unit 178, this one is a combination of a moderately deep and shallow components, although unlike 178, there is enough data to do analysis for total soils depth for the individual depth classes on the grazed plots.

Of the three soil parameters selected for statistical analysis on the grazed plots, a total of 21 were collected randomly for both ground cover and depth of A. With respect to total soils depth, 16 were collected on the moderately deep component and five on the shallow component. Analysis of total ground cover shows there is a 90 percent probability that the population mean of 19 percent will be covered by the interval of 15 percent to 22 percent. In regard to depth of A horizon, there is a 90 percent probability that the population mean of 3.10 inches will be covered by the interval of 2.50 inches to 3.70 inches. Soil depth for the moderately deep component shows there is a 90 percent probability that the population mean of 30 inches will be covered by the interval of 24 inches to 36 inches, whereas the shallow component shows there is an 80 percent probability that the population mean of 14 inches will be covered by the interval of 11 inches to 17 inches.

Only two soil parameters (i.e., total ground cover, and depth of A) were selected for analysis on relict sites and a total of four samples were collected randomly for effective ground cover and depth of A. With respect to toal ground cover, there is an 80 percent probability that the population mean of 40 percent will be covered by the interval of 32 percent to 48 percent. In regard to depth of A horizon, there is also a 90 percent probability that the population mean of 3.10 inches will be covered by the interval of 2.50 inches to 3.70 inches.

Range Evaluation: This unit was classified as full capability with respect to soil concerns and a capacity estimate was determined. Of the twenty-two pace transects taken on the unit used in the analysis, eighteen were on grazed sites and four on relict. The grazed sites scored out as predominantly poor and very poor condition. This rating was given because so many of the sites were dominated by invader shrub, forb, and graminoid species including snakeweed, Spheralcea sp. (globemallow), and Scleropagon brevifolus (burrograss). The only decreaser forage species of any predominance was the warm season grass black grama. Desirable cool season species like Sitanion hystrix (squirreltail), Indian Ricegrass, and Needle and Thread were virtually absent except on sites protected from grazing.

There were, however, several transects that rated fair and even good that should be noted. Pace number five (P-5) and eighty-two (P-82) were described north of the Colorado River within the Parashaunt Allotment (refer to range maps for specific locations). On P-5, the plot was located on the far western portion of the allotment. This area has experienced natural fire within the last five years, although the influence of the burning on the vegetative composition of the unit is uncertain. It is thought that the burning probably has influenced vigor, although that conclusion cannot be supported. One conclusion that is known, however, is that the existence of this grassland community is not the result of the fire, but rather a break in soil taxonomic components. Fifty percent of the composition is made up of decreaser plant species. Included are grasses such as Indian Ricegrass, black grama, Needle and Thread, and squirreltail. Four-wing saltbush and Muhlenbergia porteri (bush muhly) were present but not inventoried on the transect. Two other transects, P-1H and P-4, were also described in this same general area, and both of them had composition values of decreaser species of 48 and 52 percent respectively. These represent almost twice the percentage of decreaser species as was found on the poor range condition plots (a mean of 28 percent), and nearly five times higher than the very poor plots (a mean of 8 percent).

The only good condition class rating on grazed plots (P-56) was inventoried south of the Colorado River within the Diamond Bar Allotment. The composition of decreaser species was 74 percent of which 66 percent was black grama. This allotment overall did not show much utilization except for the area adjacent to the boundary line. It is thought that the distance from dependable water limits the time when cattle can use this area. This statement should not be construed as meaning that only good or excellent range condition classes are found on areas having very limited or no grazing. On the contrary, properly stocked and managed rangeland should invariably have fair or better range condition ratings, although implicit with this viewpoint is that not all acres should be considered rangeland (i.e., steep slopes and inherently unpoductive soils).

Relict sites on this unit showed a dramatic difference in condition class and range composition as compared to grazed sites. Of the four transects taken on sites considered relict, two rated excellent, one good, and one fair. The fair rating (P-1G) occurred on an isolated mesa within the inner canyon. The rather dramatic difference between this range score and the remaining three is that the plot was located adjacent to the break into Unit 183 (blackbrush dominant unit). This caused high frequency measurements of blackbrush which lowered the overall score. Still the percentage of decreasers was 59 percent with the majority of this being made up of Needle and Thread (30 percent) and winterfat (17 percent). The remaining transects P-119, P-118, and P-44 had composition percentages of decreaser species of 66, 82, and 94 percent respectively. As with the grazed plots that had fair or better condition classes and P-1G, the bulk of decreaser species is made up of such forage plants as Needle and Thread, Indian ricegrass, black grama, bush muhy, winterfat, and four-wing saltbush.

Of the two range parameters selected for analysis on the grazed plots, a total of 18 collected randomly for range score and 15 for total production. With respect to range score on grazed plots, there is a 70 percent probability that the population mean of 23 will be covered by the interval of 18 and 28. Analysis of total forage production on grazed plots indicates that there is a 60 percent probability that the population mean of 125 lbs/acre will be covered by the interval of 100 to 150 lbs/acre.

The poor confidence levels on both range parameters is the result of a wide variation of inventoried information. Range scores on grazed plots varied from 0 to 73 which breaks down to six very poor, nine poor, two fair, and one good condition classes. Total forage production was equally variable with a range in values of 0 to 400 lbs/acre. This situation is the result of the poor distribution patterns of livestock. This problem, however, is inherent within the Sanup Plateau, with its overall general lack of available water and the spacing between dependable waters being great. This leads to overutilization of the range around waters and conversely underutilization when distances become too great. The result of this in regard to data collection and analysis is lowered confidence limits around the mean because of the large variance.

With respect to range score and total production on relict sites, of the four samples, there is an 80 percent probability that the population mean of 78 will be accounted for by the interval of 63 to 94, and a 60 percent probability that the population mean of 485 lbs/acre will be accounted for by the interval of 388 lbs/acre to 582 lbs/acre respectively.

Mapping Unti 183: Lithic Ustollic Calciorthids, LSC, 2, 0, loamy, carbonatic, mesic, gravelly very fine sandy loam - Lithic Ustollic Calciorthids, LSC, 2, 0, loamy-skeletal, carbonatic, mesic, very gravelly fine sandy loam complex: Cora/EPHE/YUCC, 0 to 15 percent slopes

Photo #8: Typical view of Unit 183 with a dominance of semi-desert shrub plants including blackbrush, Mormon Tea, and yucca. The restrictive soil taxons support a sparse graminoid component even on relict sites. This precludes the assigning of any capacity

Landform: Nearly level to strongly sloping benches

Geology: Supai Sandstone

Slope: 0 to 15 percent

Acreage Extent Within Survey Area: 14,101 acres

Percent of Survey Area: 7 percent

Average Precipitation: 25 centimeters

Average Elevation: 1465 meters

Soils and Map Unit Characteristics: This map unit consists of two taxonomic components that occur in such an intricate pattern that they are not separable at the scale of mapping. It occurs on gently to strongly sloping upland benches. Soils are characterized as shallow or very shallow over bedrock, coarse to medium textured, moderately developed, and containing varying concentrations of internal coarse fragments. Lithic Ustollic Calciorthids, LSC, 2, 0, loamy, carbonatic, mesic, gravelly very fine sandy loam comprises 80 percent of the unit, whereas the Lithic Ustollic Calciorthids, LSC, 2, 0, loamy-skeletal, carbonatic, mesic very gravelly fine sandy loam makes up the remaining 20 percent.

The vegetative taxonomic name includes the species blackbrush, Mormon Tea, and yucca. This plant association is considered a climatic climax and as with Unit 178, blackbrush usually makes up over 90 percent of the existing canopy covers.

In the analysis of data since Unit 183 as with 182 is correlated with relict areas, the grazed and ungrazed sites will be separated for individual computations.

Of the soil parameters selected for analysis on the grazed plots, 16 were collected for effective ground cover, depth of A, and total soils depth. With respect to ground cover, there is a 90 percent probability that the population mean of 40 percent will be accounted for by the interval of 32 percent to 47 percent. Analysis of depth of A on grazed plots indicates that there is an 80 percent probability that the population mean of 1.80 inches will be covered by the interval of 1.40 inches to 2.10 inches. Lastly, analysis of total soils depth shows that there is a 90 percent probability that the population mean of 9 inches will be accounted for by the interval of 7 inches to 10 inches.

On relict sites, a total of 3 samples were collected randomly for effective ground cover, depth of A, and total soils depth. Analysis of data for effective ground cover shows that there is a 90 percent probability that the population mean of 44 percent will be covered by the interval of 35 percent to 53 percent. Depth of A horizon on relict sites shows a 60 percent probability that the population mean of 1.70 inches will be covered by the interval of 1.30 inches to 2.00 inches. Lastly, with respect to total soils depth on relict sites, there is a 90 percent probability that the population mean of 13 inches will be accounted for by the interval of 10 inches to 16 inches.

Range Evaluation: This unit was classified as full capability with respect to soil concerns but the lack of forage and the very poor condition class suggests that it has a very low potential and therefore no capacity was assigned to it.

Of the nineteen pace transects taken on this unit, sixteen were placed on grazed sites and three on relict. All sixteen transects on grazed sites scored out as very poor range condition. This was the result of the plots being dominated by such invader shrub species as blackbrush, yucca, Utah Agave, and turpentine broom.

Decreaser forage species on grazed sites as with Unit 178 were virtually absent. The percent frequency of these species on this unit ranged from a low of zero to only 10 percent. Relict sites on this unit unlike 182 did not show a sharp contrast in species composition or range score; however, there was a slight overall improvement. Of the three transects taken on ungrazed plots, one rated very poor, and two rated poor. The slightly better scores was the result of a higher composition of desirable decreaser forage plants mainly Needle and Thread, Indian ricegrass, squirreltail, and winterfat. The percent frequency of these species ranged from a low of zero on P-1D to a high of 20 percent on P-120.

Of the two range parameters selected for analysis on grazed sites, only range score was determined. There was a total of 13 samples collected randomly for range score and analysis of data shows there is a 90 percent probability that the mean of 11 will be accounted for by the interval of 9 to 13. Although there were 11 samples collected for total production, the mean production was so low (i.e. 4.60 lbs/acre) that it made analysis impractical.

As with Unit 183, on grazed sites, confidence levels around the mean for total production on relict sites was not calculated. As previously alluded to for grazed sites, the low means (i.e., relict sites average production estimated at 16 lbs/acre) and the lack of sufficient inventory plots on relict sites prohibited analyusis. It is a moot point if it is 4 lbs/acre or 16 lbs/acre, since both represent such low production figures that to establish any capacity on these units as well as several other blackbrush dominated ones, defeats the purpose of range management. That purpose is to stock only those lands that are considered capable and to utilize them in such a manner that the physiological conditions and the composition of the rangeland is not impaired. To determine animal units on lands lacking available forage, leads to overutilization of areas that can support a livestock operation.

Analysis of range score data on relict sites indicates that you have a 50 percent probability that the mean of 22 will be covered by the interval of 18 to 26.

Mapping Unit 184: Lithic Ustic Torriorthents, LSC, 2, O, loamy-skeletal, carbonatic, mesic, very shallow, very gravelly fine sandy loam - Rock Outcrop complex: Cora/EPHE/YUCC, 15 to 40 percent slopes.

Photo #9: View of Unit 184 which is essentially a slope phase of Unit 183. As with most blackbrush dominant units, this shrub species has effectively occupied the sites. Soils are very shallow over bedrock with over 15 percent of the unit being rock-outcrop.

Landform: Moderately steep to steep escarpment sideslopes.

Geology: Supai Sandstone and Redwall Limestone

Slope: 15 to 40 percent

Acreage Extent Within Survey Area: 6,721 acres

Percent of Survey Area: 3 percent

Average Precipitation: 25 centimeters

Average Elevation: 1465 meters

Soils and Map Unit Characteristics: This unit consists of one taxonomic component mapped in complex with the miscellaneous land type rock outcrop. It occurs on strongly sloping to moderately steep sideslopes. Soils are characterized as very shallow, coarse to medium textured, weakly developed, and containing greater than 35 percent coarse fragments in the control section. Lithic Ustic Torriothents, LSC, 2, 0, loamy-skeletal, carbonatic, mesic, very shallow, very gravelly fine sandy loam comprises 60 percent of the map unit, whereas the miscellaneous land type rock outcrop makes up the remaining 40 percent.

The vegetative taxonomic name includes the species blackbrush, Mormon Tea, and yucca. This plant association is considered a climatic climax and as with Units 178 and 183 blackbrush usually dominated the sites, although there was a portion of the survey area that did not conform to this situation. This anomaly occurred on the portion of the survey area south of the Colorado River within the Diamond Bar Allotment. Within this area, other shrub species including four-wing saltbush, cliffrose, and Eriogonum spp. (buckwheat) were inventoried with substantially higher canopy covers. In several situations, they were co-dominate with blackbrush. The reason for this rather dramatic change in plant composition and frequency is uncertain. It is thought that the presence of Yucca brevifolia (Joshua-tree) in this area is indicative of a climatic change which is influencing the composition of vegetation.

Of the soil parameters selected for analysis, eight were collected randomly for effective ground cover, depth of A, and total soils depth. With respect to ground cover, there is a 90 percent probability that the mean of 58 percent will be accounted for by the interval of 46 percent to 70 percent. Analysis of depth of A shows also a 90 percent probability that the mean 2.60 inches will be accounted for by the interval of 2.10 inches to 3.10 inches. Lastly, analysis of total soils depth shows that there is a 70 percent probability that the population mean of 10 inches will be accounted for by the interval of 8 inches to 12 inches.

Range Evaluation: This unit was classified as full capability with respect to soil concerns but the general lack of available forage and very shallow soils, indicates that it has a very low potential to produce forage. Another problem associated with this unit is that in most areas where it was mapped, it was inexcessable to livestock.

Of the eight pace transects taken on this unit, three rated very poor, two poor, and the remaining three, fair. The three fair ratings are inclusion areas within this predominantly no capability unit. Two of the transects were located in the Diamond Bar Allotment and as previously discussed this portion of the survey area had overall better species composition. Both P-62 and P-63 had increaser and decreaser species making up over 50 percent of the composition. Inventoried decreaser species on these transects included Bouteloya curtipendula (side-oats grama), cliffrose, four wing saltbush, squirreltail, and Apache plume. Increaser forage species included Stipa speciosa (desert needlegrass) and Sporobolus flexuosus (mesa dropseed). The remaining fair rating was located within the large burn on the western portion of the Parashaunt Allotment. This transect, P-54, had almost 50 percent of its composition made up of the two decreaser species Indian ricegrass and black grama. This was the only transect associated with the burn that showed relatively good rangeland conditions. However, as with Unit 182 located in this same area, edaphic properties have influenced the vegetative composition of this site more than the burn. The soil plot associated with the transect showed a soil depth of 19 inches. This is approximately 10 inches greater than the mean inventoried on this unit, and the greater rooting depths account for the increased frequency of forage species. The remaining five transects with the exception of P-55, which again was inventoried within the Diamond Bar Allotment, all typified blackbrush communities. Within these transects, blackbrush made up over 50 percent of the compositions with associated shrubs like snakeweed, Opuntia spp. (prickly pear cactus), Mormon Tea, and yucca making up the remaining amount. With respect to P-55 the decreaser species side-oats grama, Apache plume, and cliffrose comprised over 20 percent of the composition which raised the total vegetative score to the point where it almost made fair condition class.

Mapping Unit 186: Lithic Calciorthids, LSC, 2, 0, loamy-skeletal, carbonatic, mesic, gravelly very fine sandy loam - Lithic Ustollic Calciorthids, LSC, 2, 0, loamy, carbonatic, mesic, very gravelly fine sandy loam complex: Brru/Brte, 0 to 15 percent slopes.

Photo #10: Typical view across Unit 186 which accounts for the large burn on the western edge of the survey area. Although access improved dramatically across this unit after the burn, improvement in range composition did not. The increases in forage production were due to mainly annuals which included cheatgrass and foxtail chess.

Landform: Nearly level to strongly sloping benches with inclusions of moderately steep to steep sideslopes.

Slope: 0 to 15 percent

Acreage Extent Within Survey Area: 3,875

Percent of Survey Area: 2 percent

Average Precipitation: 25 centimeters

Average Elevation: 1465 meters

Soils and Map Unit Characteristics: This map unit consists of two taxonomic components that occur in such an intricate pattern that they are not separable at the scale of mapping. It occurs on gently to strongly sloping upland benches. Soils are characterized as shallow or very shallow over bedrock, coarse to medium textured, moderately developed, and containing varying concentrations of interval coarse fragments. Lithic Ustollic Calciorthids, LSC, 2, 0, loamy-skeletal, carbonatic, mesic, gravelly fine sandy loam comprises 70 percent of the unit whereas the Lithic Ustollic Calciorthids, LSC, 2, 0, loamy, carbonatic, mesic, very gravelly very fine sandy loam makes up the remaining 30 percent.

This unit represents the large burned area on the western portion of the Parashaunt Allotment, and the vegetative taxonomic name includes the annuals Bromus rubens (foxtail chess) and Bromus tectorum (cheatgrass). This vegetative association is considered to be within a fire climax category. It is uncertain at this time what the rate of blackbrush invasion will be on these sites; therefore, the climax category classification is tentative. It is possible that this type of situation is relatively short lived (i.e., 15 to 20 years) which would mean the separation and the identification of burns in previously blackbrush dominated sites should not even be considered. The reason for this statement is the identification of categories like fire indicates that the vegetation will be self-perpetuating. Fires will continue to occur and prevent the vegetation from ever achieving a climax category state. At the present time it is unclear if this is indeed the case although it is felt that this type of situation is rather probably short-lived.

Of the soil parameters selected for analysis on the grazed plots, four were collected for effective ground cover and five for depth of A, and total soils depth. With respect to ground cover, there is a 70 percent probability that the population mean of 27 percent will be accounted for by the interval of 22 percent to 32 percent. Analysis of depth of A for this unit indicates that there is a 60 percent probability that the mean of 3 inches will be accounted for by the interval of 2.50 inches to 3.50 inches.

Range Evaluation: This unit was classified as full capability with respect to soil concerns but the lack of forage and the very poor condition class indicates that it has a very low potential and therefore no capacity was assigned to it.

Of the two transects taken on this unit, they both rated out as very poor condition. This was due to the sites being occupied by invader species most notably Sphaeralcea spp., (globemallow), snakeweed, and yucca. Increases in desirable forage plants did not occur. This was due in part to the restrictive nature of the soil taxonomic components (i.e., shallow depths, high calcium carbonate and coarse fragment content) and the fact that under pre-burn conditions, the units that burned (i.e., 178 and 183) inherently lack perennial forage species. The only forage available to livestock is composed of annuals mainly cheatgrass and foxtail chess. Under optimum moisture conditions, this unit can produce some forage that could be utilized by livestock. But, to establish any capacity on the consumption of annuals, will in a bad moisture year, lead to overutilization of the full capacity rangeland.

Mapping Unit 189: Typic Ustochrepts, LSC, 4, 0, coarse-loamy, mixed, mesic, moderately deep, very fine sandy loam - Lithic Ustochrepts, LSC, 4, 0, loamy, mixed, mesic, gravelly very fine sandy loam complex: Pimo/Juos/Cora/Guti, 0 to 15 percent slopes

Photo #11: Moderately deep soils comprise 80 percent of this unit with the remaining 20 percent being shallow over bedrock. Inventory information shows that this unit has the potential to improve in range composition as well as forage production once rested. Current range condition for grazed plots was poor and very poor whereas the rested areas were scored out as fair.

Landform: Nearly level to strongly sloping benches

Geology: Supai Sandstone

Slope: 0 to 15 percent

Acreage Extent Within Survey Area: 2,873

Percent of Survey Area: 2 percent

Average Precipitation: 35 centimeters

Average Elevation: 1525 meters

Soil and Map Unit Characteristics: This map unit consists of two taxonomic components that occur in such an intricate pattern that they are not separable at the scale of mapping. It occurs on gently to strongly sloping upland benches. Soils are characterized as moderately deep to shallow over bedrock, coarse textured, moderately developed, and containing less than 35 percent coarse fragments in the profile. Typic Ustochrepts, LSC, 4, 0, coarse-loamy, mixed, mesic, moderately deep, very fine sandy loam comprises 80 percent of the unit whereas the Lithic Ustorthents, LSC, 4, 0, loamy, mixed, mesic, gravelly very fine sandy loam makes up the remaining 20 percent.

This unit represents one of the several that was inventoried within the woodland ecosystems. The vegetative taxonomic name includes the species singleleaf pinyon, Utah Juniper, blackbrush, and snakeweed. The presence of blackbrush and the lack of big sagebrush in the understory is indicative of an apparent climatic shift that promoted Great Basin and range vegetative communities to more of a Mohave Desert influence. The amount of canopy cover provided by blackbrush on the inventoried plots ranged from zero to 14 percent. Big sagebrush was not observed on any plot nor was it found when traversing the unit. Snakeweed, which is used to denote zootic influences (i.e., grazing pressure), was inventoried on all of the sites. The amount of canopy cover ranged from a low of .5 percent to a high of 4 percent. The data suggests that at some point this unit had higher concentrations of grass plants. Although the graminoid species never were inventoried with high canopy cover percentages, the composition was good, and plots taken within the Home Ranch Allotment showed a dramatic improvement. This particular allotment has been rested for a number of years, although the exact time frame is unknown.

Of the soil parameters selected for analysis, nine were collected for effective ground cover and 10 for depth of A. Since this unit is a complex of moderately deep and shallow soils, analysis of total depth separated these taxons. With respect to total depth, four were collected on the moderately deep component and six on the shallow component. Analysis of total ground cover shows there is an 80 percent probability that the population mean of 21 percent will be accounted for by the interval of 17 percent to 25 percent. In regard to depth of A horizon, there is a 70 percent probability that the population mean of 1.75 inches will be accounted for by the interval of 1.40 inches to 2.10 inches. Soil depth for the moderately deep component shows there is an 80 percent probability that the population mean of 29 inches will be accounted for by the interval of 23 inches to 35 inches, whereas the shallow component shows there is a 90 percent probability that the population mean of 13 inches will be ' accounted for by the interval of 10 inches to 16 inches.

Range Evaluation: This unit was classified as full capability and a capacity estimate was determined. Of the 10 pace transects taken on this unit, two rated very poor, five rated poor, and three rated fair. The very poor and poor ratings were inventoried with high percentages of invader species including snakeweed, burrograss, globemallow, Aristida spp., (three-awn), and blackbrush. In most cases, however, all of these transects still had a good species composition as well as frequency measurements. The invader species though, eventually outweighed the decreaser species and the resulting score was low. Invader species ranged from a low of 44 percent composition on P-92 to a high of 88 percent composition on P-114. The dominant invader species typically was snakeweed which was inventoried with a range of percent composition from 12 percent on P-115 to 50 percent on P-114. Decreaser forage species included black grama, squirreltail, Indian ricegrass, Hilaieia rigida (big galleta), and four wing saltbush. The percent composition range from a low of 10 percent on P-114 and P-115 to a high of 52 percent on P-92.

The three transects which were inventoried with the condition class of fair were all located within the Home Ranch Allotment, which has been rested. Percent composition of decreaser forage species ranged from 38 percent on P-98 to 60 percent on P-85. Black grama, Indian ricegrass, big galleta, Needle and Thread, and four wing saltbush were all inventoried on these sites and as with most transects, the decreaser forage plant black grama was dominant. Snakeweed which had an average percent composition of 30 percent on poor and very poor transects, was inventoried at 15 percent on these fair transects. The range data as well as the supporting soils information suggests that grazing pressure has had a marked influence on the increases of invader species on the sites where edaphic properties exert the development of grassland ecosystems.

Of the two range parameters selected for analysis on this unit, a total of 10 were collected for range score and eight for total production. With respect to range score, there was an 80 percent probability that the mean of 31 will be accounted for by the interval of 24 to 38. Analysis of total production shows that there is a 70 percent probability that the mean of 165 lbs/ acre will be accounted for by the interval of 122 lbs/acre to 198/lbs/acre.

Mapping Unit 190: Lithic Ustorthents, LSC, 4, 0, loamy-skeletal, mixed (Calcareous), mesic, gravelly fine sandy loam - Rock Outcrop complex: Pimo/ Juos/Cora, 0 to 15 percent slopes

Photo #12: Typical view of Unit 190 with a dominance of shrub and woodland species with a noticeable lack of desirable graminoides. Visible signs of erosion were prevalent over much of the area this unit was mapped. This situation however, is due mainly to the shallow unproductive condition of the taxonomic components rather than grazing pressure.

Landform: Nearly level to strongly sloping benches

Geology: Supai Sandstone

Slope: 0 to 15 percent

Acreage Extent Within Survey Area: 6,768 acres

Percent of Survey Area: 4 percent

Average Precipitation: 35 centimeters

Average Elevation: 1525 meters

Soils and Map Unit Characteristics: This map unit consists of a single taxonomic component in combination with the miscellaneous land-type rock outcrop. It occurs on nearly level to strongly sloping upland benches. Soils are be characterized as being shallow to very shallow over bedrock, weakly developed, coarse to medium textured, and containing over 35 percent rock fragments in the profile. Lithic Ustorthents, LSC, 4, 0, loamy-skeletal mixed (Calcareous), mesic, very shallow, very gravelly sandy loam comprises 75 percent of the unit with the remaining 25 percent made up of the miscellaneous land type rock outcrop.

The vegetative taxonomic name includes the species single-leaf pinyon, Utah Juniper, and blackbrush. As with Unit 189, this one was inventoried with a large canopy cover percentage of snakeweed. However, due to the inherent unproductive nature of this unit and the natural soil erosion rates above tolerance, it is felt that invader species like snakeweed are not the result of grazing pressure but rather the inability of desirable forage species to become established. Therefore, the use of the name in the vegetative taxonomic classification is not warranted.

Of the three soil parameters selected for analysis, a total of nine were collected randomly for ground cover, depth of A, and total soils depth. With respect to total ground cover, there is a 70 percent probability that the mean of 32 percent will be accounted for by the interval of 26 percent to 38 percent. Analysis of Depth of A shows that there is a 90 percent probability that the mean of 3.20 inches will be accounted for by the interval of 2.60 inches to 3.80 inches. Lastly, there is a 50 percent probability for total soils depth that the population mean of 7 inches will be accounted for by the interval of 6 inches to 8 inches.

The 70 percent confidence level for ground cover is the result of a large variance. The values range from a low of 12 percent on plot number 6-4#3 to a high of 60 percent on plot number 6-3#3. This type of range leads to a confidence level that is low. With respect to total soils depth, not only was the variance high with an inventoried range of 3 inches to 18 inches, but based on the mean depth and the use of a 20 percent desired error, the error around the mean is only one inch. It is a moot point if it is eight inches or six inches, both depths are considered very shallow and the existing as well as potential productivity is low.

Range Evaluation: This unit was classified as no capability with respect to soil concerns and a capacity estimate was not determined. This unit was inventoried with natural soil erosion rates above the established tolerance. The very shallow soil depths and high concentrations of rock fragments will inhibit this unit from ever achieving any stability. The lack of available forage is more the result of the restrictive nature of taxonomic components than any grazing pressure, although trailing is evident throughout the unit.

Of the nine pace transects inventoried, eight rated very poor and one poor. As with units 178 and 183 which naturally are composed of invader species, unit 190 displays the same condition. The dominant shrub component includes blackbrush and snakeweed with a minor composition of yucca, Mortonia scabrella (scurify mortonia), and Berberis fremontii (algerita). Although this vegetative type is considered woodland, the percent composition of these species (i.e., single-leaf pinyon and Utah Juniper) does not exceed four percent. The low representation of these species is probably the result of the limitations of the soil components, which prohibits the expansion of the woodland vegetation.

Of the two range parameters selected for analysis, only range score was determined. As with unit 39 and several others, when existing forage production is low, a desired error of 20 percent results in only a range around the mean of four or five pounds per acre. The design of most range resource inventories including the Sanup Plateau is such that the inventory process just does not have the resolution to measure these low values. As previously mentioned, whether it is 20 lbs/acre or 10 lbs/acre or even zero is not a significant factor. What is significant, however, is that this unit along with the majority inventoried within the Sanup Plateau just do not have a naturally high or even moderate level of forage production. This situation results in the no capability classification due to a lack of available forage. Of the six transects which were inventoried with an estimated forage production, two rated at zero pounds per acre, three at 25 pounds per acre, and one at fifty pounds per acre. The mean production was approximately 20 pounds per acre.

Analysis of range score shows that there is a 60 percent probability that the mean of 11 will be accounted for by the interval of 9 to 13. The range of scores went from a low of four on P-77 and P-79 to a high of 28 on P-78.

Mapping Unit 191: Lithic Ustorthents, LSC, 4, 0, loamy-skeletal, mixed (calcareous), mesic, very shallow, very gravelly sandy loam - Rock Outcrop complex: Pimo/Juos/Cora, 15 to 40 percent slopes.

Photo #13: As with Unit 190, this one was inventoried with high canopy and range composition percentages of invader plant species including snakeweed, blackbrush, prickly pear, and yucca. Unit 191 represents a slope phase of Unit 190 and the existing as well as potential forage production is low.

Landform: Strongly sloping to moderately steep sideslopes

Geology: Supai Sandstones

Slope: 15 to 40 percent

Acreage Extent Within Survey Area: 12,807

Percent of Survey Area: 7 percent

Average Precipitation: 35 centimeters

Average Elevation: 1525 meters

Soils and Map Unit Characteristics: This map unit consists of a single taxonomic component in combination with the miscellaneous land-type rock outcrop. It was inventoried on strongly to moderately sloping sideslopes associated with small drainages which dissected the Sanup Plateau. As with Unit 190, these soils are characterized as shallow to very shallow over bedrock, weakly developed, coarse to medium textured, and containing over 35 percent rock fragments in the profile. Lithic Ustorthents, LSC, 4, 0, loamy-skeletal, mixed (Calcareous), mesic, very shallow, very gravelly sandy loam comprises 70 percent of the unit with the remaining 30 percent made up of the miscellaneous land type rock outcrop.

The vegetative taxonomic name includes the species single-leaf pinyon, Utah Juniper, and blackbrush. This particular biotic community is considered within the topo-edaphic climax category (refer to Table 4). The synergistic effect of shallow soils associated with the drainage systems is influencing the vegetation in several ways. First, it is thought that the woodland species root systems are penetrating the fractured bedrock thereby expanding their rooting depths. Secondly, the drainage systems are cold air passages which would cause a lowering of the evapotranspiration demand. Both factors are contributing to the establishment of this woodland community.

Of the soil parameters selected for analysis, a total of eight were collected randomly for effective ground cover, depth of A, and total depth. With respect to total ground cover, there is a 90 percent probability that the mean of 56 percent will be accounted for by the range of 45 percent to 67 percent. Analysis of depth of A indicates that there is a 70 percent probability that the mean of 2.40 inches will be accounted for by the interval of 1.90 inches to 2.90 inches. Lastly, there is a 60 percent probability for total soils depth that the mean of 8 inches will be accounted for by the interval of 6 inches to 10 inches.

The higher effective ground covers on this unit as compared to Unit 190 is accounted for solely by the increase in rock fragments. As with Unit 190, the confidence levels of 70 percent and 60 percent are the result of a range around the mean that is extremely low. In this case, it is .50 inches for depth of A and two inches for total soils depth.

Range Evaluation: This unit was classified as no capability with respect to soil concerns and a capacity estimate was not determined. Erosional processes are active on this unit which is evident in the numerous rills and extensive sheet erosion which was noted. The soil stability ranking on all but one pace transect was poor. Of the eight transects taken, six rated very poor, one poor, and one fair. The one fair rating P-24 is considered an inclusion within this predominantly no capability unit. This transect was inventoried with over 50 percent of its composition made up of decreaser forage species including Poa fendleriana (muttongrass), Needle and Thread, and squirreltail. The uncharacteristic high percentage of these species is due to the north aspect where the plot was located which would lower the evapotranspiration demand and the deeper soil depths. The remaining seven transects averaged less than 10 percent decreaser forage species. As with Unit 190, the shrub component was dominated by the species blackbrush and snakeweed, although shrub live oak, Utah agave, and turpentine bush were co-dominate on several plots. Decreaser forage species on the poor and very poor range condition plots included mainly black grama.

Of the two range parameters selected for analysis, only range score was determined. Total forage production was estimated on five plots but it was inventoried at a consistent 25 pounds per acre. With respect to range score, there is a 50 percent probability that the mean of 19 will be accounted for by the interval of 15 to 23. As with Unit 190, the low confidence levels are the result of the large variance, with the range in scores going from a low of 8 on P-31 to a high 48 on P-24.

Mapping Unit 192: Typic Ustochrepts, LSC, 4, 0, coarse-loamy, mixed, mesic, very fine sandy loam: Pimo/Atca/Stco/Boer, 0 to 15 percent slopes.

Photo #14: Unit 192 in foreground with Units 190 and 181 in background. This unit along with Unit 182 represents the highest productive potential within the Sanup Plateau Study Area. Soils are essentially deep with no restrictive horizons. Relict site information indicates that the range condition class should either be high good or excellent.

Landform: Nearly level to strongly sloping valley plain

Geology: Supai Sandstone

Slope: 0 to 15 percent

Acreage Extent Within Survey Area: 1,553

Percent of Survey Area: 1 percent

Average Precipitation: 35 centimeters

Average Elevation: 1525 meters

Soils and Map Unit Characteristics: This unit consists of a single taxonomic component, therefore, the map unit was designed and inventoried as a consociation. It occurs on nearly level to strongly sloping valley plains. The soil component are characterized as moderately deep and deep over bedrock, coarse textured, moderately developed, and lacking significant rock fragments in the profile. Typic Ustochrepts, LSC, 4, 0, coarse-loamy, mixed, mesic, comprised 100 percent of the unit.

The vegetative taxonomic name includes the species single-leaf pinyon pine, four-wing saltbush, Needle and Thread, and black grama. As with Unit 182, this biotic community represents a seral grassland vegetative type. The soil components and their influence on the productive potential of the unit is virtually the same between Units 182 and 192. The separation criteria between these two involved the appropriate climax category it was located in (refer to Table 4). Unit 182 was considered a topo-edaphic climatic climax under column three whereas Unit 192 was considered the same climax category but under column four. The placement of 192 in this column indicates that it occurs in a wetter/cooler environment. This should relate directly to the productive potential of Unit 192 as it relates to Unit 182, but as previously mentioned, if there is a significant difference it was not apparent.

Since Unit 192, as with Units 182 and 183, was correlated with relict sites, the analysis of data separated the two. Of the three soil parameters selected for analysis on grazed plots, a total of 10 were collected for effective ground cover and 11 for both depth of A and total soils depth. Analysis of total ground cover shows there is an 80 percent probability that the population mean of 17 percent will be accounted for by the interval of 14 percent to 20 percent. With respect to depth of A horizon, there is a 90 percent probability that the mean of 2.80 inches will be accounted for by the interval of 2.25 inches to 3.35 inches. Lastly, analysis of total soils depth shows there is a 90 percent probability that the population mean of 34 inches will be accounted for by the interval of 27 inches to 41 inches.

The soil parameters selected for analysis on relict sites unlike Unit 182 are the same. There were a total of four samples collected for effective ground cover, depth of A, and total soils depth. With respect to ground cover, there is an 80 percent probability that the mean of 42 percent will be accounted for by the interval of 34 percent to 50 percent. Analysis of depth of A shows that there is an 80 percent probability that the mean of 4 inches will be accounted for by the interval of 3.20 inches to 4.80 inches. Lastly, there is also an 80 percent probability that the mean depth of 24 inches will be accounted for by the range of 19 inches to 29 inches.

Range Evaluation: This unit was classified as full capability with respect to soil concerns and a capacity estimate was determined. Of the fifteen pace transects taken on this unit used in the analysis, eleven were on grazed sites and four on relict. Range composition and range score improved dramatically over Unit 182 on the grazed sites. Although relict sites on both grassland units (i.e., Units 182 and 192) indicate significant differences between grazed and ungrazed plots. The difference between the measured parameters for individual units is slight, indicating the production potentials are similar.

Of the eleven transects taken on grazed sites, one rated good, three fair, five poor, and one very poor. The fair and good condition classes were the result of high frequency measurements of black grama, four wing saltbush, squirreltail, Needle and Thread, and big galleta. The percent composition of these species ranged from a low of 12 percent of P-110 to a high of 64 percent on P-84 and P-91. The low frequency measurements of decreaser forage species on P-110 was offset by the high percent composition of increaser plants including mesa and spike dropseed. Even though the decreasers amounted to only 12 percent, the 74 percent composition of the two dropseed species bump the score into the fair condition class. The high frequency measurements of decreaser species which occurred on P-84, P-90, and P-91 were all inventoried on the Home Ranch Allotment. The remaining transects as well as P-110 were all inventoried in Parashaunt Allotment which had higher composition values of increaser and invader species. The range in percent composition of decreaser species on the poor and very poor range condition sites went from a low of 12 percent on P-73 to a high of 42 percent on P-74. The average composition of decreaser species on these transects was 23 percent as compared to 56 percent on the higher condition classes (excluding P-110). The lower scores are the result of an increased frequency of invader plants including snakeweed, globemallow, three-awn, and burrograss. Decreaser forage species included predominantly black grama, with low amounts of squirreltail and Indian ricegrass. Of the six transects taken on this unit which scored out as poor and very poor condition classes, three had a total absence of cool season forage species (i.e., Needle and Thread, squirreltail, and Indian ricegrass). This situation is quite similar to Unit 182 on grazed sites, and is apparently caused by the low forage production on the remaining units inventoried. Essentially what is occurring is that livestock are trailing through areas of low forage production and concentrating on the units 182, and 192 which have substantially higher amounts.

Relict sites on this unit as with Unit 182 showed a dramatic difference in condition class and range composition as compared to grazed sites. Of the four transects taken, three rated excellent and one good. As with most transects that scored out as fair or better range condition, the improved scores were the result of higher densities of decreaser forage species. The range in percent composition on relict sites of these plants went from a low of 64 percent on P-122 to a high of 92 percent on P-1C. The mean composition of decreaser species is 79 percent on relict plots which compares to 47 percent for the fair and good ratings on grazed plots (including P-110), and 23 percent on the poor and very poor ratings on grazed plots. Composition of invader species on relict sites averged only 12 percent whereas on the grazed sites inventoried as poor and very poor range condition, the average was 60 percent. This represents a five fold increase of invader species on grazed sites. Composition of decreaser and increaser warm season versus cool season grasses on P-122, P-123, and P-124 show a dominance of the warm season grass black grama although the cool season species including Needle and Thread, Stipa speciosa (desert needlegrass), squirreltail, and Indian ricegrass did make up a substantial component. The data suggests that under ungrazed conditions, black grama would have been the dominate forage graminoid.

Of the two range parameters selected for analysis on grazed plots, a total of 10 were collected for range score and six estimates were made for total forage production. Analysis of range score shows that there is an 80 percent probability that the population mean of 39 will be accounted for by the interval of 31 to 47. With respect to total forage production, there is a 60 percent probability that the mean of 135 lbs/acre will be accounted for by the range of 108 lbs/acre to 160 lbs/acre.

Of the four samples collect for range score and total production on relict sites, there is a 90 percent probability that the population mean of 80 will be accounted for by the interval of 64 to 96. Production ranged from a low of 450 lbs/acre to a high of 670 lbs/acre with a mean of 560 lbs/acre.

Mapping Unit 194: Lithic Ustic Torriorthents, LSC, 2, 0, loamy-skeletal, carbonatic, mesic, very shallow, very gravelly fine sandy loam - Rock Outcrop complex: Cora/EPHE/YUCC, 0 to 15 percent slopes.

Photo #15: Typical view of Unit 194 with its overall improvement in existing forage production as well as range condition. This unit was inventoried only within the Grand Wash Hook section of the survey area.

Landform: Nearly level to strongly sloping benches

Geology: Redwall Limestone

Slope: 0 to 15 percent

Acreage Extent Within Survey Area: 2,631 acres

Percent of Survey Area: 1 percent

Average Precipitation: 25 centimeters

Average Elevation: 1465 meters

Soils and Map Unit Characteristics: This map unit consists of a single taxonomic component in combination with a miscellaneous land-type. It occurs on nearly level to strongly sloping upland benches and was inventoried only on the portion of the survey area south of the Colorado River (i.e., Grand Wash Hook). Soils are characterized as very shallow over bedrock, weakly developed, and containing over 35 percent rock fragments in the profile. The soil taxonomic component belongs to the loamy-skeletal, carbonatic, thermic Lithic Ustic Torriorthent family and comprises 65 percent of the unit with the remaining 35 percent being the miscellaneous land type rock outcrop.

The vegetative taxonomic name includes the species blackbrush, Mormon Tea, and yucca. This plant community is considered within the climatic climax category although differences did exist between this blackbrush unit and the several which were inventoried north of the Colorado River. These differences included mainly a lower canopy cover percentage of blackbrush with a correspondingly higher percent of other shrub species. Blackbrush plots located within those allotments north of the river showed canopy cover percentages usually in excess of 30 percent. The remaining shrub species included turpentine broom, Mormon Tea, snakeweed, and yucca. In most cases, these shrubs were found in either trace amounts or at the most one to two percent. Graminoids were inventoried in only trace amounts, and in a majority of plots was not even a component.

Unit 194 unlike these units showed blackbrush being co-dominant. The range of canopy covers went from a low of three percent on plot 10-4 #1 to a high of 20 percent on plot 10-3 #1. On those plots with less than 10 percent canopy cover by blackbrush other shrubs including cliffrose, Utah Agave, ~~four-wing~~ fovewing saltbush, Lycium spp., (wolfberry), and buckwheat were either co-dominant with blackbrush or were represented in all of the inventoried sites in more than trace amounts.

Another distinction that was apparent between Unit 194 and other blackbrush areas is that the graminoids were found on all the inventoried sites. However, it must be noted that the cumulative percentage of these grass species was still less than one percent. Typically, black grama was dominate although side-oats grama, desert needlegrass, Tridens muticus (tridens) and Erioneuron pulchellus (fluffgrass) were represented.

Of the three soil parameters selected for analysis, six were collected for effective ground cover, depth of A and total soils depth. Analysis of ground cover shows a 90 percent probability that the population mean of 57 percent will be accounted for by the range of 46 percent to 68 percent. With respect to depth of A, there is a 50 percent probability that the mean of 2.10 inches will be accounted for by the range of 1.70 inches to 2.50 incehs. Lastly, there is an 80 percent probability that the mean soil depth of 7.30 inches will be accounted for by the interval of 5.80 inches to 8.80 inches.

Range Evaluation: This unit was classified as full capability with respect to soils concerns and a capacity estimate was determined. Of the six pace transects taken on this unit, two rated poor and four rated very poor. As with all blackbrush ecosystems, the poor ratings are inherent with the communities. The synergistic effect of shallow depths, high interval rock content as well as free calcium carbonate have all combined to prevent these sites from having higher concentrations of the desirable forage species.

Although previously mentioned under soil and map unit characteristics, it will again be emphasized here that there is an overall improvement in species composition. This has carried over to the range scores which averaged 24 for the Grand Wash Hook area as compared to 11 on the other blackbrush dominated units. The percent composition of decreaser forage species went from a low of two percent on P-45 and P-46 to a high of 38 percent on P-66. The improvement in decreaser species was most notably in the frequency measurements of Indian ricegrass, black grama, and cliffrose. Increaser species were virtually absent except for P-66 which was inventoried with a 10 percent composition.

Invader shrub species included blackbrush, yucca, Mormon Tea, and snakeweed. On most plots, there was a representation of all species with blackbrush uncharacteristically not having the wide margin of dominance.

Another factor which led to the FC classification is that two transects taken on the sideslopes also indicated a major improvement in species composition. Both P-62 and P-63 rated out within the fair condition class. The improvement in the overall score was accounted for by the decreaser species side-oats grama and cliffrose as well as the increaser gramonoides mesa dropseed and desert needlegrass. Cool season grasses which were normally absent from grazed plots on the allotments north of the river were typically present here. The data supports possibly two conclusions, which are:

1. The current grazing management plan is operating satisfactorily.

2. This area is so far from dependable water that the livestock are using it for a very short time period.

Due to the limited scope of this study, it was not determined why the Grand Wash Hook section shows the improvement in range condition that it does. Apparently climate and possibly edaphic properties are contributing to the increased variability of plant species. Only with the establishment of long term vegetative plots will the question ever be answered.

Of the two range parameters selected for analysis, a total of six were collected randomly for both range score and total forage production. With respect to range score, there is a 60 percent probability of the mean of 24 percent will be accounted for by the interval of 19 to 29. Analysis of forage production indicates that there is also a 60 percent probability that the mean of 40 lbs/acre will be accounted for by the interval of 32 lbs/acre to 48 lbs/acre.

Mapping Unit 195: Typic Calciorthids, LSC, 1, 0, fine-loamy, mixed, thermic, very gravelly very fine sandy loam - Typic Calciorthids, LSC, 1, 0, loamy-skeletal, carbonatic, thermic, moderately deep, extremely gravelly very fine sandy loam association: Yubr/Cora/Stco/Boer, Yubr/Cora, 0 to 15 percent slopes.

Photo #16: The fine-loamy component of Unit 195 typified by grass species in the foreground with the loamy-skeletal component and its correspondingly high composition measurement of blackbrush in the background. The loamy-skeletal taxon of Unit 195 occupies the colluvial toe slope position adjacent to Unit 177 whereas the fine loamy taxon is associated with the valley plain.

Landform: Nearly level to strongly sloping valley plains and adjacent colluvial toe slopes

Geology: Mixed alluvium and colluvial material

Slope: 0 to 15 percent

Acreage Extent Within Survey Area: 418 acres

Percent of Survey Area: Not significant

Average Precipitation: 25 centimeters

Average Elevation: 1465 meters

Soils and Map Unit Characteristics: This map unit consists of two taxonomic components that could have been separated at the scale of mapping but were not because their separation would have detracted significantly from the readability of the maps. This unit was inventoried on nearly level to strongly sloping valley plains and adjacent colluvial toe slopes. The fine-loamy component of this association was found within the alluvial bottom whereas the loamy-skeletal was found on the adjacent sideslopes. Soils are characterized as moderately deep and deep, moderately developed, and containing varying concentrations of rock fragments in the profile. As with Unit 194, this one was inventoried only within the Grand Wash Hook portion of the survey area.

Vegetation between the two components is significantly different with the toe slopes dominated by Joshua Tree and blackbrush and the alluvial bottom consisting of mainly graminoids. The vegetative taxonomic name for the grassland component includes the species Joshua Tree, blackbrush, Needle and Thread, and black grama whereas the portion of the unit inventoried on the adjacent sideslopes is considered Joshua Tree and blackbrush. It is felt that the Joshua Tree is indicative of hotter/dryer climatic. However, with respect to the fine-loamy component since the inventoried graminoide species were quite similar with respect to Units 182 and 192, it is thought that the productive potential is similar.

Since large differences occurred between the existing vegetation, the analysis of data separated the two taxons. Four randomly collected samples were inventoried for the respective variables within both taxons. Analysis of data for effective ground cover for the fine-loamy soil taxon indicates that there is a 60 percent probability that the mean 28 percent will be accounted for by the interval of 22 percent to 34 percent whereas the loamy-skeletal component show a 90 percent probability that the mean of 47 percent will be accounted for by the range of 38 percent to 56 percent. Analysis of depth of A horizon, for both the fine-loamy and loamy-skeletal components indicate a 60 percent probability. With respect to the fine-loamy component, the mean of 2.00 inches will be accounted for by the interval of 2.20 inches to 3.40 inches, whereas the loamy-skeletal component, the mean of 2.80, will be accounted for by the range of 2.20 to 3.40 inches. Lastly, analysis of total soil depth for the fine-loamy component indicates that there is a 70 percent probability that the mean of 29 inches will be accounted for by the interval of 23 inches to 35 inches whereas the loamy-skeletal shows a 70 percent probability that the mean of 23 inches will be covered by the interval of 18 inches to 28 inches.

Range Evaluation: This unit was classified as full capability with respect to soil concerns and a capacity estimate was determined. Of the eight pace transects taken on this unit, three rated very poor, three poor, one fair, and one excellent. All of the very poor and one poor transects were inventoried on the loamy-skeletal component of this association. The mean range score for the loamy-skeletal taxon was 12 (i.e., very poor condition class) as compared to 51 (i.e., fair range condition class) for the fine-loamy component. This rather dramatic difference is the result of the high rock fragment and calcium carbonate content which leads to a dominance of blackbrush.

In most cases, the sites inventoried with the loamy-skeletal component have in excess 75 percent frequency of blackbrush with the remaining composition being made up of snakeweed, prickly pear, and Mormon Tea. The fine-loamy taxon in contrast was inventoried with only two percent composition of blackbrush on P-50 and P-59 whereas on P-57 and P-67 it was not even encountered. The data on this unit as well as other blackbrush dominated ones supports the conclusion that edaphic properties to a large degree influence whether or not a site will be a semi-desert shrub or a shrub/grassland community.

The analysis of range data as with soils information separated the fine-loamy and loamy-skeletal taxonomic components. With respect to total forage production on the fine-loamy taxon, there is a 60 percent probability that the mean of 170 lbs/acre will be accounted for by the interval of 135 lbs/acre to 195 lbs/acre. The loamy-skeletal taxon had such a low mean (i.e., 12 lbs/acre) that analysis was not feasible. In regard to range score of the fine-loamy, there is a 60 percent probability that the mean of 51 will be accounted for by the range of 41 to 61. As with total production on the loamy-skeletal taxon, range score suffered the same problem of an extremely low mean. Compounding this problem was a range of scores that went from a low of four on P-53 to a high of 28 on P-64. The large variance in combination with the low mean value for the loamy-skeletal component of this association prohibited analysis. Additional data collection would increase the reliability, although, since this unit represents only 418 acres of the entire survey area, it was not conducted.

Universal Soil Loss Equation Results

In the application of the USLE, it must be understood that the results of model are not the sole factor used to determine capability classifications. In all cases, supporting information from the range pace transects and soil pedon and/or observation forms are used to determine the ultimate classification. The model itself is one of the few tools available that accounts for the various site variables within an ecosystem like soil surface condition, vegetation, and weather and can estimate range deterioration in terms of soil loss. Estimating current erosion rates and relating them to a potential tolerance and natural is an important component of any range analysis as is the determination of range condition. Land managers can use the information from the model to weigh alternatives for a given allotment and select a proposal that will minimize soil loss and accomplish the desired management objectives.

Table 9 represents the results of the USLE computer program as well as the erosion hazard rating and revegetation potential. Erosion hazard is defined as the probability of soil loss resulting from the complete removal of vegetation and litter. In other words, it relates directly to the calculated soil loss at zero percent ground cover. For the purposes of USLE surface rock fragments are not counted as a component of vegetative ground cover. The erosion inhibiting effect of surface rock fragments are accounted for by the K Factor. An erosion hazard rating of slight indicates that all vegetation and litter can be removed from the soil surface and the resultant soil loss will not exceed tolerance. This does not mean that soil degradation will not be occurring, however, the chances for significant impairment are low. In most cases, soil units rated at slight erosion hazard will generally stabilize without specific treatments. A moderate or severe erosion hazard rating indicates that the potential (e.g., maximum soil loss) soil loss will exceed the tolerance. The separation criteria between these two ratings is that at severe the resulting soil loss has a high probability of lowering site productivity before mitigative measures can be applied.

Revegetation potential refers to the probable success and ease of establishment of native grasses. The rating is based on the various soil and site variables like internal rock fragments, soil depth, climate, and terrain. A rating of low indicates that the area occupied by the unit is restricted by properties that cannot be reasonably and economically mitigated. The implementation of a range improvement project should probably not be done.

Table 9: Universal Soil Loss Equation and Ranger Management Interpretations

Map Unit	Sheet and Rill Erosion				Effective Ground Cover				Current Ground Cover				Erosion	Reveg.,
Number	Pot.	Tol.	Cur.	Nat.	Pot.	Tol.	Cur.	Nat.	RF	Veg.	Lit.	Soil	Hazard	Potential
	Tons	Acre	Year		Percent				>2mm	BA	---	---		
39	.98	3.00	.45	.30	0	-	25	40	60	15	10	15	Slight	Low
178	3.40	2.00	1.25	.98	0	5	20	35	55	10	10	25	Moderate	Low
182	3.40	3.00	2.10	.60	0	5	15	45	20	10	5	65	Moderate	High
183	.60	2.00	.30	.20	0	-	20	35	45	15	5	35	Slight	Low
184	4.50	2.00	2.00	1.50	0	20	20	35	55	10	10	25	Moderate	Low
186	.98	2.00	.70	.30	0	-	10	35	45	5	5	45	Slight	Low
189	2.90	3.00	1.60	.85	0	-	20	45	15	15	5	65	Slight	Moderate
190	2.40	1.00	1.45	1.45	0	20	15	15	35	10	5	50	Moderate	Low
191	5.60	1.00	3.40	3.40	0	40	15	15	60	10	5	25	Moderate	Low
192	3.21	3.00	1.96	.55	0	5	15	45	10	10	5	75	Moderate	High
194	.50	1.00	.18	.13	0	-	20	30	50	10	10	30	Slight	Low
195	1.10	3.00	.50	.30	0	-	30	45	50	15	10	25	Slight	Low-Mod.

A rating of moderate means that the potential in range forage and condition class improvement is restricted, however, the edaphic and/or topographic factors can be mitigated reasonably and economically. A high rating indicates that the potential is not restricted by soil or climatic properties. These sites offer optimum conditions for establishment of forage plants.

Of the sixteen mapping units inventoried during the survey, only twelve were used in the USLE model. Units 110, 177, 179, and 181 represent steep inaccessible slopes, areas of rock outcrop, or badlands. There are essentially two reasons why these units were selectively excluded from the soil loss computations. First, the design and implementation of this soil and range inventory was such that areas that were inaccessible or inherently lack forage production were not sampled intensely. In other words, the resolution of information was not sufficient enough to include them. Although this is a concern, the most important and second factor as to their exclusion was that the processes of erosion that are now occurring are not measurable with the model. USLE measures only sheet and rill erosion. The units in question have erosion in the form of debris flows and gully. It is a moot point what the sheet and rill erosion is since the dominant forces involved are causing massive land failures or large gullies which are not measurable with USLE.

Six units (i.e., units 39, 183, 186, 189, 194, and 195) were rated with an erosion hazard rating of slight. Essentially under the worst case conditions of no vegetative cover, the accelerated erosion rate would be below the tolerance. A significant loss of site productivity and the length of time that would have to occur for this to happen is uncertain. However, the data supports the conclusion that for these units, the time frame would have to be quite long (i.e., in excess of 50 years). What must be remembered is that the conditions needed to reach potential would be found only after a wildfire. After a period of time, natural healing processes would occur and the soil erosion rate would drop. Hence, the potential for serious long-term impacts is not a major concern.

The remaining six units (i.e., 178, 182, 184, 190, 191, and 192) were rated as moderate with respect to erosion hazards. In regard to units 178, 184, and 191, these units occupy slopes in excess of 15 percent which inherently will have erosion rates that are higher than those inventoried on the more gentle inclinations. This is due to the velocity of water flow which increases dramatically on slopes over 15 percent, hence the ability of water to detach and move soil is greater.

Only two units (i.e., units 190 and 191) were inventoried with natural soil erosion rates above the tolerance. The very shallow soil depths in conjunction with high rock content in the soil inhibits the production of enough ground cover to stabilize areas where these units were mapped. The range pace transects were all very poor or poor except for P-24 which rated out as fair. The soil stability ratings on the pace transect form however, were all poor. The lack of available forage was evident throughout these units and all the supporting data suggests that these units are incapable of achieving any landscape stability.

The remaining units were inventoried with current erosion rates below the established tolerance. In all cases from a capability standpoint, these units can be grazed, however, in the case of units 178, 183, 184, and 186, since they were inventoried with essentially a complete lack of available forage, no capacity was assigned.

Although units 182, 189, and 192 have current erosion rates below the tolerance, current erosion is two to three times as high as found under natural conditions. The rates under natural conditions were established by relic site information which had existing vegetative ground cover conditions considerably higher than the grazed sites. Understandably, when a given land area is allocated to grazing, impacts will occur. These impacts under sound management prescriptions which would account for proper distribution and utilization would however be minimal on soil erosion rates. The loss in actual site productivity on these units is unknown, although the data collected indicates that the inherent potential is still high even though the soil erosion has been accelerated over a period of time.

A change in management which would rest the areas where these units were mapped would help in the re-establishment of the graminoid components, which would eventually increase the effective ground cover conditions and lower the soil erosion rates.

Range Evaluation and Interpretation

Condition and Trend

During the course of the survey, 133 pace transects were inventoried of which 65 rated very poor, 41 poor, 16 fair, 5 good, and 6 excellent (refer to Table 10). Of the fair and better range condition ratings, approximately 80 percent occurred in Units 182, 189, and 192. The dramatic concentration of the better range condition ratings on these unts is the result of edaphic properties. The lack of internal rock fragments in the profile and deeper soil depths contribute to the inherently higher productive capacity which is reflected in the range scores.

Both Units 182 and 192 represent the highest potential for forage production and improvement thereof. The combined acreage of these units represents 65 percent of the full capability acres. Ungrazed and/or relict sites were also inventoried for these units which conclusively show the inherent productivity of these soils. Although analysis of data was completed on a map unit basis, the similarities between these two units and the fact that they are correlated with relict sites warranted further analysis.

With respect to range score on Units 182 and 192 of the 39 randomly collected samples, 31 were inventoried on grazed and 8 were inventoried on relict sites. Analysis of range score data indicates a 90 percent probability on both grazed and relict plots. The mean range score of 31 on grazed sites will be accounted for by the range of 25 to 37 whereas on the relict plots, the mean of 79 will be accounted for by the range of 63 to 95. This represents an average condition class of poor on the grazed sites in contrast to good and excellent range condition on the relict. This dramatic improvement on the ungrazed areas is the result of the dominance of decreaser plant species mainly black grama and Needle and Thread, with lesser concentrations of four wing saltbush, Indian ricegrass, winterfat, and bush muhly. The percent frequency of decreaser species on relict sites ranged from a low of 59 percent on P-1H to a high of 94 percent on P-44 with a mean of 77 percent. The grazed plots for these same units were inventoried with a variation of values that went from a low of zero percent on both P-28 and P-41 to a high of 74 percent on P-56. The average percent composition of decreaser plants was only 28 percent on the grazed sites.

The ungrazed sites represent a three fold increase in desirable forage species as compared to grazed. This situation could be the result of several factors which include over-stocking, lack of time control (i.e., overgrazing), herding practices, and the lack of dependable waters. Another significant problem which leads to the distribution problems is the fact that what dependable waters were inventoried are just too far apart. This invariably leads to high use the closer livestock get to water. Desirable decreaser species have been almost eliminated within a mile of permanent waters.

Table 10. Summary of Range Pace Transects

NUMBER	MAPPING UNIT	PACE TRANSECT	VEGETATIVE TYPE	RANGE CAPABILITY	RANGE CONDITION	RANGE COMPOSITON
1	186	P-1	1/16	NC	VP	SPHA, GUTI, Cora
2	182	P-2	1	FC	VP	GUTI, SPHA, Leer
3	183	P-3	16	NC	VP	Cora, GUTI, SPHA
4	182	P-4	1	FC	F	Sihy, GUTI, Boer
5	182	P-5	1	FC	F	SPHA, Sihy, Orhy
6	184	P-6	16	NC	P	Cora, Thmo, Trel
7	182	P-7	1	FC	P	SPHA, Sihy, LYCl
8	182	P-8	1	FC	P	SPHA, Sihy, GUTI
9	183	P-9	16	NC	VP	Cora, GUTI, Sihy
10	182	P-10	1	FC	P	GUTI, Sihy, Boer
11	178	P-11	16	PC	VP	Cora, EPHE, YUCC
12	178	P-12	16	PC	VP	Cora, EPHE, YUCC
13	186	P-13	1/16	NC	VP	YUCC, Cora, SPHA
14	182	P-14	1	FC	P	Hija, GUTI, SPHA
15	178	P-15	16	NC	VP	Cora, YUCC, EPHE
16	182	P-16	1	FC	P	Boer, Hija, GUTI
17	182	P-17	1	FC	VP	Scbr, GUTI, Hija
18	191	P-18	9	NC	VP	Cora, GUTI, YUCC
19	183	P-19	16	NC	VP	Cora, YUCC, Agut
20	183	P-20	16	NC	VP	GUTI, Cora, YUCC
21	183	P-21	16	NC	VP	Cora, GUTI, YUCC
22	182	P-22	1	FC	VP	GUTI, Scbr, Leer
23	184	P-23	16	NC	VP	Cora, GUTI, YUCC
24	191	P-24	9	NC	F	Polo, Elsa, GUTI
25	182	P-25	1	FC	P	GUTI, Boer, Orhy
26	191	P-26	9	NC	VP	GUTI, Cora, Qutu
27	191	P-27	9	NC	VP	Cora, GUTI, Agut
28	182	P-28	1	FC	VP	GUTI, Scbr, Cora
29	177	P-29	9	NC	P	GUTI, Cora, Hija
30	191	P-30	9	NC	P	GUTI, Stco, Chna
31	191	P-31	9	NC	VP	Cora, OPUN, Fapa
32	39	P-32	7	FC	P	Boer, GUTI, Thmo
33	182	P-33	1	FC	P	MENT, Spcr, Boer
34	190	P-34	9	NC	VP	Cora, GUTI, Thmo
35	182	P-35	1	FC	VP	GUTI, Hija, Leer
36	178	P-36	16	NC	VP	Cora, YUCC
37	178	P-37	16	NC	VP	Cora, Hyac, Agut
38	39	P-38	7	FC	VP	Cora, Boer, Hija
39	39	P-39	7	FC	VP	GUTI, Cora, YUCC
40	178	P-40	16	PC	VP	Cora, EPHE
41	182	P-41	1/16	PC	VP	Cora, GUTI, EPHE
42	183	P-42	16	NC	VP	Cora
43	194	P-43	16	FC	VP	Cora, Agut, Erfa
44	182	P-44	1	FC	E	Stco, Boer, Sihy
45	194	P-45	16	NC	VP	Cora, Agut, GUTI
46	194	P-46	16	NC	VP	Cora, EPHE, GUTI
47	194	P-47	16	FC	P	Cora, Boer, YUCC
48	184	P-48	16	NC	VP	Cora, GUTI, EPHE
49	177	P-49	16	NC	P	Cora, Erfa, Come
50	195	P-50	1	FC	P	Hija, Boer, Cora
51	177	P-51	16	NC	P	GUTI, Cora, Come
52	177	P-52.	16	NC	P	Cora, STIP, SPHA

NUMBER	MAPPING UNIT	PACE TRANSECT	VEGETATIVE TYPE	RANGE CAPABILITY	RANGE CONDITION	RANGE COMPOSITION
53	195	P-53	16	FC	VP	Cora, LYCI, GUTI
54	184	P-54	1/16	NC	F	Orhy, GUTI, EPHE
55	184	P-55	16	NC	P	YUCC, ASTE, Erio
56	182	P-56	1	FC	G	Boer, GUTI, Stco
57	195	P-57	1	FC	F	Boer, GUTI, Scbr
58	195	P-58	16	FC	VP	Cora, Spfi, GUTI
59	195	P-59	1	FC	P	Hija, Boer, GUTI
60	184	P-60	1/16	NC	VP	Cora, Orhy, Lase
61	194	P-61	16	FC	VP	Cora, GUTI, Agut
62	184	P-62	16	NC	F	Boer, SPHA, GUTI
63	184	P-63	16	NC	F	Cora, STIP, Spcr
64	195	P-64	16	FC	P	Cora, Spcr, OPUN
65	182	P-65	1	FC	P	GUTI, Leer, Orhy
66	194	P-66	16	FC	P	Come, Boer, Corq
67	195	P-67	1	FC	E	Boer, GUTI, SPHA
68	195	P-68	16	FC	VP	Cora, YUCC, CHOL
69	183	P-69	16	NC	VP	Cora, EPHE, YUCC
70	182	P-70	1	FC	P	Hija, GUTI, Orhy
71	178	P-71	16	PC	VP	Cora, EPHE, YUCC
72	192	P-72	1	FC	P	GUTI, Boer, Hija
73	192	P-73	1	FC	VP	GUTI, ARIS, SPHA
74	192	P-74	1	FC	P	Boer, GUTI, Spcr
75	189	P-75	9	FC	P	GUTI, Boer, Cora
76	190	P-76	9	NC	P	GUTI, Boer, YUCC
77	190	P-77	9	NC	VP	Cora, GUTI, OPUN
78	191	P-78	9	NC	VP	ARIS, Cora, Spcr
79	190	P-79	9	NC	VP	GUTI, Cora, OPUN
80	192	P-80	1	FC	P	GUTI, Hija, Scbr
81	191	P-81	9	NC	VP	Cora, Thmo, GUTI
82	182	P-82	1	FC	F	Hija, Boer, GUTI
83	189	P-83	1	FC	P	Boer, GUTI, ARIS
84	192	P-84	1	FC	G	Boer, Sihy, Hiri
85	189	P-85	9	FC	F	Boer, GUTI, Juos
86	39	P-86	7	FC	P	Qutu, Cora, Cegr
87	39	P-87	7	FC	P	GUTI, Qutu, Artr
88	39	P-88	7	FC	P	GUTI, Artr, PHLO
89	190	P-89	9	NC	VP	Cora, OPUN, Come
90	192	P-90	1	FC	F	Boer, GUTI, Leer
91	192	P-91	1	FC	F	Boer, Sihy, GUTI
92	189	P-92	9	FC	P	Boer, GUTI, Stco
93	178	P-93	16	PC	VP	Cora, Come, YUCC
94	39	P-94	7	FC	P	GUTI, Jumo, Brlo
95	39	P-95	7	FC	P	GUTI, Artr, Qutu
96	189	P-96	9	FC	P	Boer, GUTI, Aris
97	189	P-97	9	FC	F	Boer, Aris, GUTI
98	189	P-98	9	FC	F	Hiri, Boer, GUTI
99	177	P-99	16	NC	P	Cora, Stsp, YUCC
100	183	P-100	16	NC	VP	Cora, YUCC, OPUN
101	178	P-101	16	PC	VP	Cora, OPUN, Prfa
102	190	P-102	9	NC	VP	Cora, OPUN, YUCC
103	183	P-103	16	NC	VP	Cora, YUCC, GUTI
104	190	P-104	9	NC	VP	GUTI, Cegr, Qutu
105	178	P-105	16	PC	VP	Cora, YUCC, CHRY
106	183	P-106	16	NC	VP	Cora, Thmo, YUCC
107	183	P-107	16	NC	VP	Cora, Thmo, YUCC

NUMBER	MAPPING UNIT	PACE TRANSECT	VEGETATIVE TYPE	RANGE CAPABILITY	RANGE CONDITION	RANGE COMPOSITION
108	183	P-108	16	NC	VP	Cora, YUCC, Fapa
109	183	P-109	16	NC	VP	Cora, OPUN, YUCC
110	192	P-110	1	FC	F	Spfl, Spco, Boer
111	189	P-111	9	FC	P	GUTI, Boer, SPHA
112	190	P-112	9	NC	VP	GUTI, Cora, Scbr
113	190	P-113	9	NC	VP	GUTI, Cora, Boer
114	189	P-114	9	FC	VP	GUTI, Cora, Boer
115	189	P-115	1	FC	VP	Scbr, ERIO, GUTI
116	192	P-116	1	FC	P	GUTI, Aris, Boer
117	192	P-117	1	FC	P	Scbr, SPHA, GUTI
118	182	P-118	1	PC	E	Boer, Stco, SPHA
119	182	P-119	1	PC	G	Boer, Gapi, ARIS
120	183	P-120	16	NC	P	Cora, Eula, SPHA
121	183	P-121	16	NC	P	Cora, Agut, GUTI
122	192	P-122	1	PC	E	Boer, Stco, Stsp
123	192	P-123	1	PC	E	Boer, GUTI, Stco
124	192	P-124	1	PC	E	Boer, Stco, Sihy
125	178	P-1A	16	PC	VP	Cora, Thmo, YUCC
126	183	P-1B	16	NC	VP	Cora, Chna, YUCC
127	192	P-1C	1	PC	G	Stco, Boer, GUTI
128	183	P-1D	16	NC	VP	Cora, EPHE, YUCC
129	192	P-1E	1	PC	G	Boer, Sihy, GUTI
130	178	P-1F	16	PC	VP	Cora, YUCC, CHOL
131	182	P-1G	1	PC	F	Cora, Stco, Eula
132	182	P-1H	1	FC	F	GUTI, Sihy, Orhy
133	183	P-1I	16	NC	VP	Cora, YUCC, GUTI

The units dominated by blackbrush (i.e., Units 178, 183, 184, and 194) as well as the old burn that occurred on former blackbrush sites were consistently very poor and poor range condition class. As with the moderately deep and deep soils influencing the composition of grassland vegetation, the shallow/carbonatic taxons inhibit the development of significant amounts of the graminoid component. These sites have never had nor will they ever produce any forage of significant amounts to support a livestock operation. Although there is light use noted, livestock are essentially trailing through these units and concentrating in the grassland areas.

Of the four units inventoried within the blackbrush ecosystems, only one (Unit 183) was correlated with ungrazed conditions. Of the nineteen transects taken, 16 were under grazed conditions, and three relict. All grazed plots were inventoried with a very poor condition class whereas the relict sites improved slightly. The relict sites were inventoried with one poor, and two very poor ratings. The small but measurable improvement was due to the higher incidence of winterfat and Needle and Thread. However, the dramatic differences that were noted on Units 182 and 192 between grazed and ungrazed conditions just were not found on Units 178, 183, 184, and 194.

What is important to remember is that not only does grazing intensity influence range condition but also soil physical properties. With respect to the Sanup Plateau, this is an extremely important consideration and of the total transects taken on the blackbrush in grazed or ungrazed conditions, almost 95 percent had less than a fair condition class ratings. These units cannot be relied upon for the production of any usable forage.

Grazing Capability

Capability refers to the ability of a given land area to support a livestock operation. Normally, capability is based on soil erosion rates. However, lack of forage and the knowledge that the potential for improvement is not possible is also another criteria enabling the classification of lands into the appropriate capability class.

There are three categories of capability classification which were used in the Sanup Plateau Study. No capability (NC) are those lands that are inaccessible, lack forage, or have existing soil erosion rates above the tolerance and the potential for improvement inherently is not possible (8). Only two units were classified as NC due to current soil erosion rates (Unit 190 and 191) and it is felt that the present situation, as previously discussed, is the result of the inherent unproductive nature of the taxonomic components than grazing pressure. In all other cases the NC classification was the result of a lack of available forage and the knowledge that the productive potential of the site is so limited that increases in forage species is nonexistent. In most cases, all of these units displayed a large percentage of rock fragments on the surface which effectively protects the soil surface from the effects of water erosion. Capacity estimates are not calculated for lands with this designation.

Potential capability (PC) as with the NC classification could have been the result of a barrier that has resulted in the inability of livestock to effectively use the area although this is unlikely. In most cases, it is an existing soil erosion problem, lack of forage or both. The separation between these classifications is that under the PC designation, the improvement potential is there. Only one unit (Unit 178) was classified as PC, and that was due to the inventorying of a moderately deep component within the complex. Under current conditions this unit lacks available forage although soil erosion rates are below the tolerance. At this time it is thought that forage improvement may be possible which would lead to the PC designation being dropped. This viewpoint cannot be substantiated however, and as previously mentioned, if the large burn on the western edge of the Parashaunt Allotment is any indication of the potential for improvement, this unit in all probability should be classified NC. Capacity estimates are not calculated on lands with the PC designation.

Full capability lands are areas that have available forage and conversely do not have significant erosion problems. Six map units (i.e., Units 39, 182, 189, 192, 194, and 195) inventoried during the study fall within this classification and unlike the previous designations, estimated capacity was determined.

To properly address capability as it relates to the Sanup Plateau, it must be understood that the area is comprised mostly of steep inaccessible canyons. Unit 181 which represents the inner canyon alone makes up approximately 90,000 acres or 47 percent of the survey area. Of the total 193,500 acres, approximately 115,000 acres or 60 percent of the survey area were either slopes over 40 percent or sheer vertical cliffs. In other words, only 77,400 acres (i.e., 40 percent) had slope ranges under 40 percent.

This value (i.e., 77,400 acres) in terms of the Sanup Plateau is the amount of land area that is considered accessible to livestock although not all of the areas with less than 40 percent slopes were classified as FC. Approximately 18,500 acres or 24 percent of the total land area under 40 percent slopes is considered FC. The bulk of the acreage (e.g., 44,100 acres or 57 percent) is still considered NC although the reason is not so much the lack of accessibility but more appropriately the lack of available forage. The remaining 19 percent of the land area under 40 percent slopes is considered PC (i.e., Unit 178).

Forage Production, Allowable Use, and Capacity Estimate

Forage production is the existing average production in pounds per acre that was either actually measured or estimated for a given map unit. During the initial inventory work, most transects conducted on areas with a significant graminoid component had production measured by standard techniques. Once the estimated and measured production values were within ± 20 percent, the remaining transects were estimated except for spot checks. Only those plants considered desirable forage species were measured. This included mainly black grama, bush muhly, Indian ricegrass, and Stipa spp. Although there are several desirable shrubs (e.g., winterfat and four wing saltbush), they were never measured for production. In all cases, they made up such a small component that the time necessary to clip them just was not warranted. Blackbrush which was the dominant shrub component, was not considered a desirable browse species although it sometimes has a minor value for game animals.

Total forage production with respect to current methodologies used for range inventories does not carry nearly the importance it once did. Before the introduction of production/utilization surveys, forage production was the key component in the determination of an estimated capacity. However, the use of total forage production to achieve a capacity estimate had several drawbacks. The main criticism was that it did not consider the existing physiological condition of the plant, and more importantly, what is the current utilization on that species. The key to proper stocking and improvement in range condition is utilization. Production in this context is used solely to determine the utilization on the plant. Cages strategically placed in areas that provide forage are clipped periodically to approximate the use. The concept of total production on an area and the incorporation of that value to achieve an estimated capacity is not used. Unfortunately, in the case of the Sanup Plateau it is virtually the only way a capacity estimate can be determined.

Allowable use which still is an essential component in the determination of an estimated capacity was ascertained from proper use tables. These tables are the result of various studies and establish guidelines of proper grazing that can be permitted on a given plant species within an area (7, 8). The degree of grazing use and trampling that any plant can accommodate is highly variable from species to species. Grazing use is influenced by many factors, such as terrain features, water distribution, plant vigor, and plant palatability. Other factors to consider when establishing allowable use include intensity of management, type of livestock, wildlife and soil needs, season of use, range condition, and the ability to respond to better management (8).

Table 11 lists the proper use values for indigenous species found within Region 3 (FSH 2209.21), and correspondingly within the Sanup Plateau Study.

Table II: Proper Use Guidelines for Specific Range Condition Classes		
Species	Proper Use on Fair and Higher Range Condition Classes	Proper Use on Poor and Very Poor Range condition, Classes
Side-Oats grama	35 percent	10 to 25 percent
Black grama	30 to 40 percent	10 to 30 percent
Galleta	30 percent	10 to 20 percent
Bush muhly	25 percent	5 to 15 percent
Squirreltail	30 percent	10 to 20 percent
Sand dropseed	25 percent	5 to 15 percent

In reviewing table 11, it must be remembered that the Sanup Plateau presents several significant problems when trying to establish an allowable use. These problems include the nature of FC areas interspersed with large blocks of PC and NC, distance from water can be as great as four or five miles, and lastly in most areas, the FC units are in either poor or very poor range condition. In the case of the Sanup Plateau, those areas close to water (i.e., within two miles) become key areas and an allowable use figure of 35 or 40 percent would be reasonable. However, since there is an appreciable amount of acreage a considerable distance from water as well as an overall poor or worse range condition in most FC areas, an allowable use of 30 percent was established. Although this value falls below the proper use on fair and better range condition, it is higher than normally would be allowed on poor and very poor rangelands. It is thought that this level of utilization may result in an overall improvement in range condition. If not, the allowable use should be dropped to 15 or 20 percent. The capacity estimate is determined by establishing the average production of a unit, or a combination thereof, multiplying by an allowable use, and then dividing by an established forage consumption per AUM. The forage value per AUM with regard to the Sanup Plateau is 730 pounds. This value is reflective of a cow/calf operation and if the livestock operation were changed to steers, as an example, the forage value needed to sustain an AUM would drop.

Tables 12 and 13 represent the estimated capacities for the Parashaunt, Home Ranch, Dripping Springs, and Diamond Bar Allotments under two different situations. The first represented in Table 12 is under current conditions with an allowable use of 30 percent with predominantly poor and very poor range conditions. Table 13 was developed to show the potential the Sanup Plateau had under relict or ungrazed conditions. It is unlikely that it will ever achieve this stocking level again, although the potential for a dramatic improvement is still thought to exist. Several points should be understood in the development of these tables. First, the mean production has been established on estimated and/or measured values on a map unit basis. Since Units 182 and 192 are similar, they were combined. Secondly, since Unit 194 is essentially very shallow over bedrock and its existing forage production is less than 50 lbs/acre, the allowable use was reduced to 20 percent.

Concurrent with this is the fact that this unit poses such severe restrictions, it is felt that what little forage is now available might be lost at a higher allowable use. Thirdly, a range in estimated capacities is given as well as the mean. This range was based on the mean and a desired error of ± 20 percent. Fourth, the estimated capacity is based on a season of use of seven months. Any shorter time frame would increase the total number of livestock and conversely any longer would reduce it, although the actual capacity in AUM's would remain constant.

The Parashaunt Allotment which makes up approximately 60 percent of the Sanup Plateau study area has a range in estimated capacities from a low of 513 AUM's to a high of 786 AUM's with a mean of 650 AUM's. This capacity estimate is based on the amount of FC areas which is approximately 11,500 acres or 10 percent of the allotment. Based on the seven month use period, the amount of livestock would range from a low of 73 head to a high of 112 head with a mean of 93 head. A comparison between grazed and ungrazed sites indicates a dramatic increase in stocking. Based on the available data from ungrazed plots, the range in estimated capacities goes from a low of 2,134 AUM's to a high of 3,171 AUM's with a mean of 1,643 AUM's. This breaks down to an estimated number of livestock that ranges from 305 to 453 head with a mean of 377 head. This represents a three fold increase in capacity under good and excellent range condition classes. Although the response of impacted areas and the time necessary to achieve improvement is unknown, it is felt that with enough rest, these areas will eventually attain higher capacities. This is based on the assumption that black grama, which was inventoried as a substantial component on most grazed sites will increase in its frequency production and vigor.

The Home Ranch Allotment which makes up approximately 25 percent of the Sanup Plateau study area has a range in estimated capacities from a low of 135 AUM's to a high of 203 AUM's with a mean of 172 AUM's. This represents in livestock numbers a range in values from 20 to 29 head with a mean of 25 head. This capacity estimate is based on 2,725 acres within the FC designation or 6 percent of the allotment. Unlike the Parashaunt Allotment, the Home Ranch will not have the substantial increases in capacity based on ungrazed conditions. This is the result of the low acreage in the FC designation, and also the inventorying of only 600 acres of Units 182 and 192. Based on the data presented in Table 13, the range in capacities goes from a low of 229 AUM's to a high of 341 AUM's with a mean of 287 AUM's. This breaks down to numbers of livestock that range from a 33 head to 49 head with a mean of 41 head. One point that needs clarification is that there has not been an attempt to show any improvements in Unit 39 nor Unit 189. Since ungrazed conditions could not be correlated with either unit, improvements thereof was not conducted. However, with respect to Unit 189, the data suggests that improvements in range and forage conditions are possible. If for example, Unit 189 produced 300 lbs/acre of total forage, this would equate to an increase of 102 AUM's or 15 head increase.

Of the four allotments, not only does Dripping Springs represent the smallest at 6,500 acres (three percent of total), but it also contains the least amount of FC acres at 255 (four percent of the allotment). This allotment has approximately 80 percent of its land area or 5,216 acres tied up in Units 179 or 181 which represents steep vertical slopes above and below the Sanup Plateau. This situation indicates that even prior to the introduction of grazing, this allotment never inherently had much capacity. Based on Table 12, the range in estimated capacities goes from a low of 15 AUM's to a high of 22 AUM's with the mean at 18 AUM's. This breaks down to a range in livestock numbers between two to four head. Under relict conditins, the livestock numbers increase to the range of 3 to 5 head. The situation encountered within this allotment is that it does not have many areas that can support a livestock operation. The estimated capacities support this and livestock grazing is not considered to be justified.

The last allotment with any substantial acreage within the Sanup Plateau study area is the Diamond Bar (i.e., 20,000 acre or 10 percent). This allotment was inventoried with 3,250 acres in the FC designation which represents 18 percent of the land area. As previously mentioned, this allotment showed significant improvements in existing range condition when compared to the other allotments. The range of estimated capacities under current conditions goes from a low of 74 AUM's to a high of 114 AUM's with a mean at 94 AUM's. This relates to a number of livestock that ranges from 11 to 15 head with a mean of 13 head. Based on relict data, the capacity ranges from a low of 22 head to a high of 33 head with the mean at 28 head.

The problem that inhibits any dramatic increases in grazing capacity in all but the Parashaunt Allotment is that the other three allotments just do not have enough acres in Units 182 and 192. This severely restricts the potential grazing capacity even under the most ideal conditions. Improvements in capacity by converting PC areas to FC are limited to just Unit 178, which based on existing information does not appear to be economically justified.

Table 12: Estimated Capacity for the Parashaunt, Home Ranch, Dripping Springs, and Diamond Bar Allotments Based on Current Conditions.

Allotment Name	Map Units	Range Capability	Acres	Production per Acre	Total Production	Allowable Use	Forage Available	Forage per AUM	Estimated AUM's
Parashaunt	39	FC	475	50	23,650	30	7,095	730	10
	182	FC	10,380	Low: 110	1,141,800	30	342,300	730	469
	192		10,380	Mean: 140	1,453,200	30	435,960	730	597
			10,380	High: 170	1,764,600	30	529,380	730	725
	189	FC	640	Low: 130	83,200	30	24,960	730	34
			640	Mean: 165	105,600	30	31,680	730	43
			640	High: 195	124,800	30	37,440	730	51
Home Ranch	39	FC	165	50	8,250	30	2,475	730	4
	182	FC	600	Low: 110	66,000	30	19,800	730	27
	192		600	Mean: 140	84,000	30	25,200	730	35
			600	High: 170	102,000	30	30,600	730	42
	189	FC	1,960	Low: 130	254,800	30	76,440	730	105
			1,960	Mean: 165	323,400	30	97,020	730	133
			1,960	High: 195	382,200	30	114,660	730	157

Table 12 (cont'd)

Allotment Name	Map Units	Range Capability	Acres	Production per Acre		Total Production	Allowable Use	Forage Available	Forage per AUM	Estimated AUM's
Dripping Springs	182	FC	25	Low:	110	2,750	30	825	730	1
			25	Mean:	140	3,500	30	1,050	730	1
			25	High:	170	4,250	30	1,275	730	2
	189	FC	255	Low:	130	33,150	30	9,945	730	14
			255	Mean:	165	42,075	30	12,622	730	17
			255	High:	195	49,725	30	14,917	730	20
Diamond Bar	182	FC	520	Low:	110	57,200	30	17,160	730	24
			520	Mean:	140	72,800	30	21,840	730	30
			520	High:	170	88,400	30	26,520	730	36
	194	FC	2,895	Low:	30	86,850	20	17,370	730	24
			2,895	Mean:	40	115,800	20	23,160	730	32
			2,895	High:	50	144,750	20	28,950	730	40
	195	FC	460	Low:	140	64,400	30	19,320	730	26
			460	Mean:	170	78,200	30	23,460	730	32
			460	High:	200	92,000	30	27,600	730	38

Table 13: Estimated Capacity for the Parashaunt, Home Ranch, Dripping Springs, and Diamond Bar Allotments Based on Relict Conditions

Allotment Name	Map Units	Range Capability	Acres	Production per Acre	Total Production	Allowable Use	Forage Available	Forage per AUM	Estimated AUM's
Parashaunt	39	FC	475	50	23,650	30	7,095	730	10
	182	FC	10,380	Low: 420	4,359,600	35	1,525,860	730	2,090
	192		10,380	Mean: 520	5,397,600	35	1,889,160	730	2,590
			10,380	High: 625	6,487,500	35	2,270,625	730	3.110
	189	FC	640	Low: 130	83,200	30	24,960	730	34
			640	Mean: 165	105,600	30	31,680	730	43
			640	High: 195	124,800	30	37,440	730	51
Home Ranch	39	FC	165	50	8,250	30	2,475	730	4
	182	FC	600	Low: 420	252,000	35	88,200	730	120
	192		600	Mean: 520	312,000	35	109,200	730	150
			600	High: 625	375,000	35	131,250	730	180
	189	FC	1,960	Low: 130	254,800	30	76,440	730	105
			1,960	Mean: 165	323,400	30	97,020	730	133
			1,960	High: 195	382,200	30	114,660	730	157

Table 13 (cont'd)

Allotment Name	Map Units	Range Capability	Acres	Production per Acre		Total Production	Allowable Use	Forage Available	Forage per AUM	Estimated AUM's
Dripping Springs	182	FC	25	Low:	420	10,500	35	3,675	730	5
			25	Mean:	520	13,000	35	4,550	730	6
			25	High:	625	15,625	35	5,468	730	7
	189	FC	255	Low:	130	33,150	30	9,945	730	14
			255	Mean:	165	42,075	30	12,622	730	17
			255	High:	195	49,725	30	14,917	730	20
Diamond Bar	182	FC	520	Low:	420	218,400	35	76,440	730	105
			520	Mean:	520	270,400	35	94,640	730	130
			520	High:	625	325,000	35	113,750	730	156
	194	FC	2,895	Low:	30	86,850	20	17,370	730	24
			2,895	Mean:	40	115,800	20	23,160	730	32
			2,895	High:	50	144,750	20	28,950	730	40
	195	FC	460	Low:	140	64,400	30	19,320	730	26
			460	Mean:	170	78,200	30	23,460	730	32
			460	High:	200	92,000	30	27,600	730	38

CONCLUSIONS AND DISCUSSIONS

The four grazing allotments which make up the Sanup Plateau Study Area have been inventoried and found to have a low range capability. The very steep to vertical slopes in combination with shallow soil depths inhibit to a large degree livestock accessibility as well as forage production. Of the 193,500 acres within the inventory, 60 percent or 115,000 acres are slopes over 40 percent or sheer vertical cliffs. Of the remaining 77,400 acres, 50 percent or approximately 40,000 acres is shallow to very shallow over bedrock. Typically these sites are dominated by blackbrush with few desirable forage species. They have little potential to provide increased forage production.

The entire study area is inclusive within the range of blackbrush. The unique characteristic of this species in forming essentially pure stands on shallow soils as well as its association with valuable perennial grasses on deeper ones has been documented by other authors (11 and 12). Blackbrush in southwestern Utah is found mainly on shallow sandy loams underlain with a petrocalcic horizon (11). Within the Sanup Plateau Study Area, several profiles exhibited the petrocalcic tendencies; however, it was found that these horizons were not continuous and the labeling of them as petrocalcics was inappropriate. There has been noted a gradient of increasing amounts of grasses and declining brush with increasing depth to caliche or other restrictive layers for a section of the Havasupai Indian Reservation, Arizona, which has never had livestock grazing because of lack of water (12). This type of situation was also prevalent on the Sanup Plateau study within units 182 and 192. On pace transects which were inventoried with fair and better condition classes, the entire shrub component usually made up less than 10 percent canopy cover, even on relict sites. The graminoids, in contrast, on these sites would range between 40 to 60 percent canopy cover. However, on the poor and very poor condition classes, snakeweed would comprise up to 10 percent individually. On several plots this shrub was essentially the only perennial plant inventoried.

Although it has been reported that pure stands of blackbrush may have resulted where overgrazing by livestock has removed the perennial grasses and palatable shrubs (11), that does not appear to be the case within the Sanup Plateau. On units inventoried as moderately deep to deep and containing less than 35 percent rock fragments in the profile snakeweed expanded to occupy the sites previously held by the more desirable perennial forage species. Perennial grasses were not inventoried in significant amounts on the shallow taxons. The implications are that pure blackbrush stands are climax vegetation for such sites. Improvement of perennial forage production by burning will not occur.

All of the blackbrush units are, from a soil erosion standpoint, fully capable of being grazed. In other words, the current soil erosion is below the tolerance established for it, and the erosion hazard is either slight or moderate. However, all data suggests that any basis of capacity on these units will lead to an overutilization of the grassland biotic communities. Blackbrush is generally considered very poor forage for livestock, especially cattle, but is sometimes eaten because of the lack of other forage (11). Blackbrush is protected against heavy livestock use by a combination of spines and woodiness, low nutrient quality, and is for all practical purposes a forage of last resort (12). The only use of blackbrush that was noted during the Sanup Plateau Study was immediately adjacent to livestock trails. Because of the lack of any forage species within the blackbrush stands, as well as its poor nutritional value, capacity estimates were not calculated for areas dominated by this plant.

Range condition was measured regardless of the eventual capability classification. Approximately 95 percent of all transects taken on blackbrush sites in grazed and ungrazed condition were scored as poor and very poor condition. Only on those units where soil properties influenced the establishment of a significant graminoid component did range scores improve. Edaphic conditions have a strong influence on existing as well as potential vegetation that an area will support.

The evaluation of range condition is an important prerequisite to good range management. Since the blackbrush dominated sites as well as several woodland units (e.g., 190 and 191) essentially support no grazing capacity the amount of land that can actually support a livestock operation is approximately 10 percent or 19,500 acres of the Sanup Plateau Study Area.

Ranges considered in very poor and poor condition have either a complete absence of desirable forage species or their percent frequency is very sparse. In most cases, what plants exist are hedged and of low vigor (13). This is true of those grazed units (i.e., 182, 189, and 192) which were inventoried on the Sanup Plateau within the grassland biotic communities. Except for several isolated areas, condition ratings indicate that the area within these units is in poor range condition. The only frequently encountered forage species was black grama and it was utilized significantly. The data suggests that utilization was in excess of 50 percent, although without cages this statement is judgemental.

In contrast to this situation, range condition on the relict sites was consistently good or excellent. Rangelands within these areas produce the maximum forage possible as well as containing composition that consists cheifly of desirable forage species (13). Within the Sanup Plateau that not only consisted of balck grama but also Indian ricegrass, bush muhly, winterfat, salt-bush, and several Stipa's. The most noticeable differences between grazed and relict conditions was the virtual absence of cool season species on the grazed sites.

Several studies conducted on relict sites adjacent to and in some cases overlapping the Sanup Plateau inventory indicate the same conclusion (14 and 15). On moderately deep soils where the potential exists, cool season forage species comprise a substantial component of the inventoried vegetation. Although only one study actually compared grazed and ungrazed conditions, it supports the Sanup Plateau inventory in that the cool season grasses are effectively eliminated from the grassland communities through grazing pressure (14). This same study emphasized that this condition appears to be rather long-term in that even after 50 years the cool season forage species have still failed to adequately reseed themselves into the grassland ecosystem (14). Another study conducted in the juniper woodland zone concluded that cool season grasses are all but eliminated on pastures with continuous use coupled with no deferment (20).

Two separate investigations conducted east of the survey area but within the Park boundaries also reported a significant reduction in cool season forage plants and conversely higher frequency measurements of increaser and invader species (16, 17). In the case of Fishtail Mesa, longtongue bluegrass (Poa longiligula), the most important grass inventoried on the mesa, was not reported on the mainland whereas blue grama (Bouteloua gracilis) which is the most important species on grazed sites was conspicuously lacking on the mesa (17). Both cool-season species, muttongrass and needlegrass, were virtually eliminated on the grazed areas as compared to Boysag Point (16).

Both of these studies not only indicate the severe impact that improper grazing has on cool-season forage plants but also the strong influence that Great Basin and Range plants have within the eastern portion of the Park. Both big sagebrush and pinyon pine are components of the ecosystem inventoried on these studies whereas during the Sanup Plateau inventory, big sagebrush was inventoried once and pinyon pine was replaced by single-leaf pinyon pine. Apparently the western portion of the Park has a much stronger influence by the Mojave Desert vegetative components. This is especially true within the Grand Wash Hook area where Joshua-tree was inventoried. Interestingly enough, the only blue grama seen within the Sanup Plateau Study Area was on a relict mesa.

Although changes in species composition can sometimes be attributed to drought, in most cases dryer climatic conditions primrily change the relative productivity of the component species (13). Of the various range factors (i.e., water or the lack thereof, stocking rate, time control, etc.) that have influenced the grassland communities, the two most important probably are intensity of grazing (i.e., stocking rate) and season of grazing.

Stocking rates were calculated for each allotment within the Sanup Plateau inventory area. The reason for the ranges around the mean is more to give managers an indication of what stocking might best be under current conditions than a hard and fast number. As previously mentioned, the methodology used to calculate capacity is not used within the Forest Service at this time. However, this system due to the short-term nature of the study, is the only one available to determine an estimated capacity and as of 1978 was still an acceptable method (18). It appears that the estimated capacity developed in this report even at the high level is approximately 30 to 40 percent below what is currently being grazed. Caution is advised in using these capacity estimates in any adverse action (stocking reduction). Prior to an adjustment, at a minimum, three years of production and utilization studies should be conducted in conjunction with the placement of clusters. Comparing actual use with known livestock numbers will result in a more reliable estimate of grazing capacity.

Although the data suggests that the inventory area is over-stocked, it might not be the greatest single factor that is influencing the range condition on the Sanup Plateau; it could be season of use combined with the wrong management systems. Many authors have established that heavy or even light grazing at certain key periods of the year virtually will destroy desirable forage species. One report concluded that under heavy grazing in early winter, the desirable winterfat and budsage, moderately desirable grasses, and undesirable shadscale all increased. Whereas at the same grazing intensity in late winter virtually eliminated winterfat and budsage, held the grasses at a constant composition, and enabled shadscale to increase dramatically (19). Plant response to season of grazing is related to stage of development. From late November to late February, the forage plants are basically dormant and the previous year's growth of grass is dead and shrub twigs are physiologically inactive (13). From March into April, however, the growth of cool-season plants begins (13). In the case of the Sanup Plateau, this probably is the main reason why desirable cool-season forage grasses like Indian ricegrass, squirreltail, and the various Stipa's have been eliminated from the grassland ecosystems. Even at a relatively low stocking rate, the continual removal of shoot material by grazing weakens the plant; and if this occurs for prolonged periods the carbohydrate reserve needed for regrowth is so depleted that the plant dies (13).

In conclusion, the study area is being damaged by continuous, late winter grazing and in all probability over-stocked conditions. The current grazing systems that are being employed do so with little or no regard for the needs of the plants. This has resulted in the loss of cool season forage species as well as poor range conditions. Changing the season of use, coupled with a deferred rest-rotation grazing system, would decrease the impact on any livestock reduction.

This study has not addressed native wildlife needs. Some of the existing capacity should be allocated to wildlife. This amount would depend upon existing wildlife populations as well as desired future numbers.

At a minimum, cages and clusters should be established in the key areas (e.g., units 182 and 192), and range condition and trend monitored regardless if livestock are prohibited from the area. These areas will yield substantial information concerning the recovery of impacted rangeland as well as insights on the management of the semi-desert shrub/grassland communities.

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APPENDIX A
RANGE PACE TRANSECTS

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment Sanup Plateau Date 4/28/84 Transect No. 1

Aerial Photo No. 13-6 Place Interval 3 By Baxter - Galeano

Game Mgmt. _____ Vegetative Type 1116 NC Slope 1-29%

Key Area _____ Soil M.U. 186 Aspect N

Location Map:

Bearing S40W

Soil Pit 13-6 #1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Shallow soils Forage production 201bs/Acre

Leaf Measurements (Vigor)

Species	Silky	
1	3.5	
2	4.0	
3	4.0	
4	4.0	
5	4.0	
6	4.0	
7	3.0	
8	4.5	
9	5.0	
10	3.0	
Tot	39	
Ave	4	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	8	8	8	X2= 16
Inc.	6	2	8	8	X¼= 2
Inv.	4	80	84	84	X-1= -84
Tot.	10	90	100		-66
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4/81

VEGETATION

Forage Cover Index 8

Composition 6

Vigor 4

Total 18

Cool Season . . . . . _____

Condition Class . . . VP

Current Trend . . . . →

Trend Indicators _____

SOIL STABILITY

Bare Soil Index 5

Soil Disturbance Factor 15

Total 20

Condition Class . . . . . VP

Current Trend . . . . . →

Summary of Hits

Hits, all Plants 10

Hits, all Rock 8

Litter . . . . . -

Bare Soil . . . 82

Total 100

Hits, Dec. + Inc 6

Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	SPHA	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	R	—	—	—	—	—	—
21	22	23	24	25	23	27	28	29	30
—	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
				Cora	Corq				
R	—	—	—	—	L	—	—	—	R
41	42	43	44	45	46	47	48	49	50
		YUCC			Corq				
—	—	YUCC	R	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	83	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

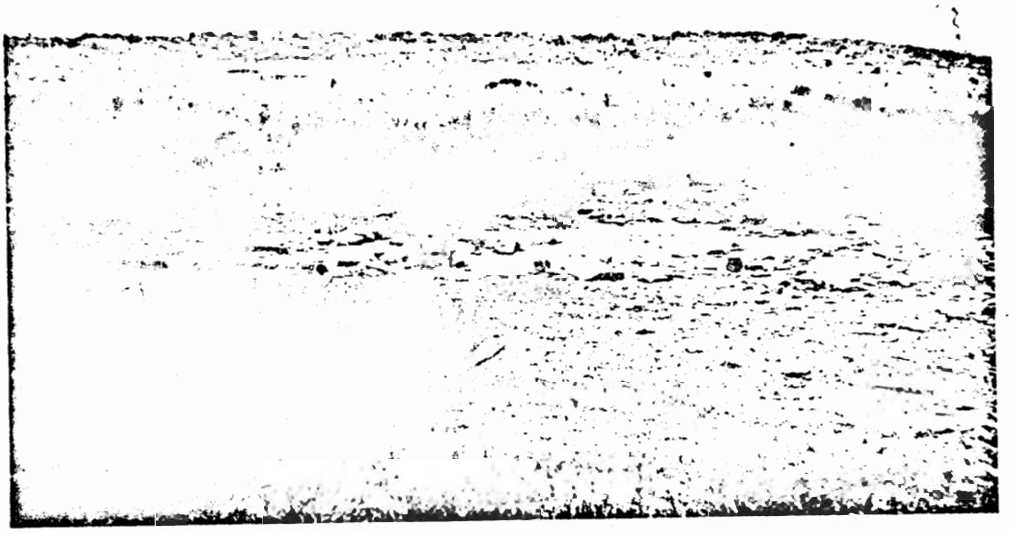
Production	Present
1-0	Orhy
2-0	Mopd
3-0	EPHE
4-0	Come
5-0	Trpu
6-0	
7-2	
8-0	
9-0	
10-0	
2 or 20 lbs/Ac	

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sibx		••	3-6	
	Boer		•	1-2	
Inc.	Cora	••	•	4-8	Inc. to 10%
Inv.	SPHA	•	⊠⊠:•	24-48	
	GUTI		⊠::	16-30	
	EBIG		•	1-2	
	YUCC	•	•	2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants	::			5-10	
Hits Dec. & Inc.					
Tot. Rock	::			4-8	
Tot. Litter					
Bare Ground ⊠	⊠⊠⊠•			41-82	
Tot. Cool Season					



Pace Transect #1
Sanup Plateau

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment: Sanup Plateau Date: 4/28/84 Transect No.: 2
Aerial Photo No.: 13-6 Place Interval: 3 By: Baytee-Galeano
Game Mgmt.: Vegetative Type: 1 FC Slope: 1
Key Area: Soil: M.U. 182 Aspect: South

Location Map:

Bearing N6E
Soil Plot # 13-6#2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Forage Prod: 0
mod., deep soil

Leaf Measurements (Vigor)

Species	Silky	
1	3.5	
2	3.0	
3	4.0	
4	3.0	
5	2.0	
6	3.0	
7	3.0	
8	2.0	
9	3.0	
10	2.5	
Tot	29	
Ave	3	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	4	4	4	X2= 8
Inc.	0	0	0	0	X½= 0
Inv.	4	92	96	96	X-1=-96
Tot.	4	96	100		-88
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4/81

VEGETATION

Forage Cover Index: 0
Composition: 2
Vigor: 1
Total: 3
Cool Season:
Condition Class: VP
Current Trend: →
Trend Indicators:

SOIL STABILITY

Bare Soil Index: 2
Soil Disturbance Factor: 15
Total: 17
Condition Class: VP
Current Trend:

Summary of Hits

Hits, all Plants: 4
Hits, all Rock: 0
Litter: 2
Bare Soil: 94
Total: 100
Hits, Dec. + Inc: 0
Cool Season:

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
GUTI									
GUTI	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
—	—	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
			GUTI						
—	—	—	GUTI	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Production

1-0
2-0
3-0
4-0
5-0
6-0
7-0
8-0
9-0
10-0

Present
Hija
EPHE
Orhy
Atcq
Eulq

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

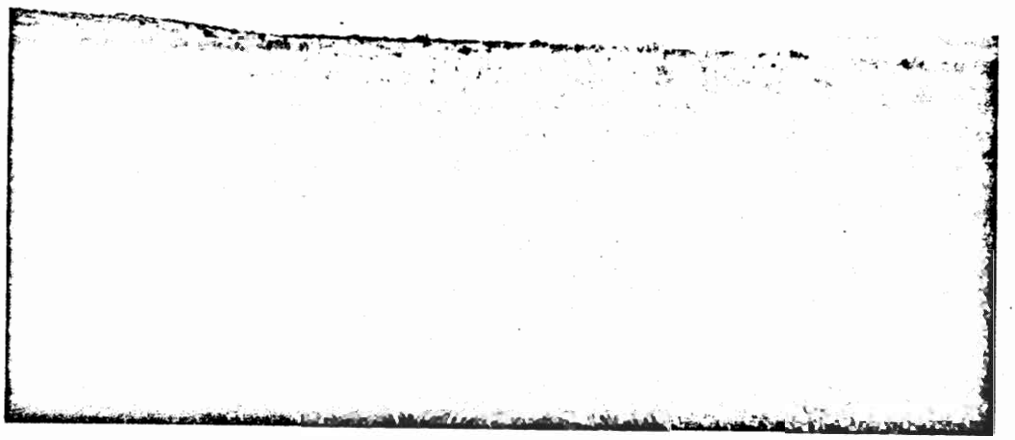
	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
6							
8							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Subx		:	2-4	
Inc.					
Inv.	Lecs		::	4-8	
	Sebr		::	2-4	
	GUTI	:	⊠⊠	21-42	
	SPHA		⊠⊠	19-38	
	LYCI		:	1-2	
	Trpu		:	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		:		2-4	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter		:		1-2	
Bare Ground		⊠⊠⊠		47-94	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot												



Pace Transect #2
Sanup Plateau

U.S. Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment: Sawp Plateau Date: 4/28/83 Transect No.: 3
Aerial Photo No.: 13-6 Pace Interval: 3 By: Bartee-Galeano
Game Mgmt.: Vegetative Type: 16 NC Slope: 3
Key Area: Soil: M.U. 183 Aspect: NW-W

Location Map:

Soil Plot 13-6 #3
Bearing 52ow

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Forage Prod.: 0-166 / Acre shallow, rocky calcareous soil

Leaf Measurements (Vigor)

Species	Orby	
1	6.0	
2	11.0	
3	8.0	
4	4.0	
5	9.0	
6	7.0	
7	4.0	
8	9.0	
9	9.0	
10	8.0	
Tot	75	
Ave	8	

CROWN DENSITY (ASPEN-AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	10	10	10	X2=20
Inc.	3	15	18	18	X¼=4.5
Inv.	3	69	72	72	X-1=-72
Tot.	6	94	100		-47.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4/81

VEGETATION

Forage Cover Index 4
Composition 9
Vigor 5
Total 18
Cool Season . . . . .
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators

SOIL STABILITY

Bare Soil Index 8
Soil Disturbance Factor 15
Total 23
Condition Class . . . . . P
Current Trend . . . . .

Summary of Hits

Hits, all Plants 6
Hits, all Rock 12
Litter 12
Bare Soil . . . 70
Total 100
Hits, Dec. + Inc 3
Cool Season

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
							EPHE		
—	R	L	—	—	R	—	L	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	L	—	—	—	R	—	—
21	22	23	24	25	23	27	28	29	30
									YUCC
—	—	—	—	R	—	—	—	—	L
31	32	33	34	35	33	37	38	39	40
		Corg							
L	—	Corg	—	—	L	R	—	—	L
41	42	43	44	45	45	47	48	40	50
—	—	—	—	—	—	—	L	—	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	78	72	80
81	82	83	84	85	83	87	88	89	90
81	82	83	84	85	83	87	83	89	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Comp.							

Production

1-0
2-0
3-0
4-0
5-0
6-0
7-0
8-0
9-0
10-0

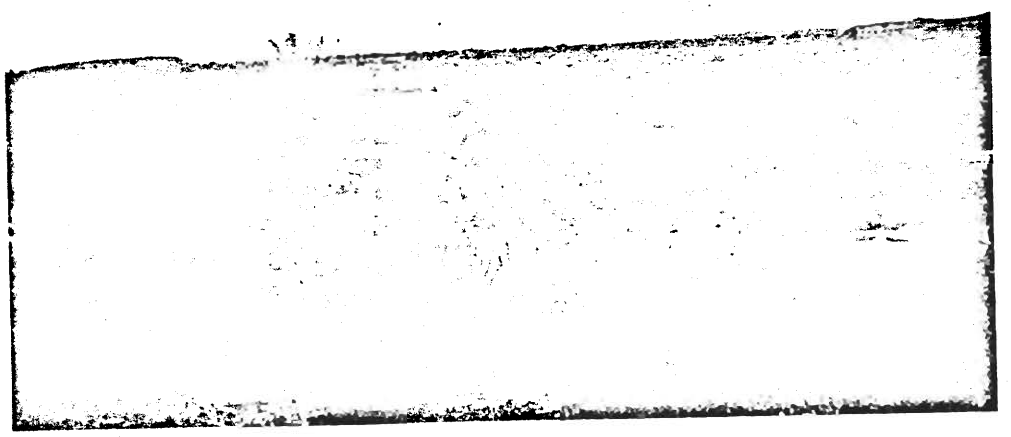
Present
Star
Mupo
Thmo
Come
Trel

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Orhy		:		
	Suby		:		
Inc.	Corg	:	⊠	12-24	Inc. to 10%
	EPHE	.	.	2-4	
	Stop		:	2-4	
Inv.	GUTI		⊠:	12-24	
	SPHA		⊠	9-18	
	YUCC	.	.	2-4	
	Pain		:]	5-10	
	ERIG		.	1-2	
	Corn	.			
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		:		3-6	
Hits Dec. & Inc.					
Tot. Rock		:]		6-12	
Tot. Litter		:]		6-12	
Bare Ground		⊠⊠⊠:		35-70	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #3
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment: Sanup Plateau Date: 4-29-84 Transect No.: 4
Aerial Photo No.: 13-6 Place Interval: 3 By: Baxter
Game Mgmt.: _____ Vegetative Type: .1 Fc Slope: 4%
Key Area: _____ Soil: M.U. 182 Aspect: SW

Location Map:

Bearing: Due West
No soil pit dug

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Cattle sign Abundant, Production: 450 lbs/Ac

Leaf Measurements (Vigor)

Species	Ochy	
1	5.0	
2	9.0	
3	13.0	
4	7.0	
5	8.0	
6	13.0	
7	16.0	
8	11.0	
9	5.0	
10	8.0	
Tot	95	
Ave	10	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	48	52	52	X2= 104
Inc.	0	10	10	10	X¼= 2.5
Inv.	6	32	38	38	X-1= -38
Tot.	10	90	100		+68.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4/81

VEGETATION

Forage Cover Index: 5
Composition: 30
Vigor: 8
Total: 43
Cool Season: _____
Condition Class: Fair
Current Trend: →
Trend Indicators: Pedistalled Plants

SOIL STABILITY

Bare Soil Index: 6
Soil Disturbance Factor: 20
Total: 26
Condition Class: P
Current Trend: ↓
Active small hills

Summary of Hits

Hits, all Plants: 10
Hits, all Rock: 4
Litter: 8
Bare Soil: 78
Total: 100
Hits, Dec. + Inc: 4
Cool Season: _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			GUTI						
—	—	—	GUTI	—	—	L	R	L	—
11	12	13	14	15	16	17	18	19	20
	Atca								
L	—	—	—	—	R	—	—	—	—
21	22	23	24	25	26	27	28	29	30
GUTI									
—	—	—	—	—	—	—	—	—	L
31	32	33	34	35	36	37	38	39	40
				Atca					
—	—	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
			GUTI						
—	—	—	L	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS : RIPARIAN : ASPEN

	Seedling		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Stco
EPHE

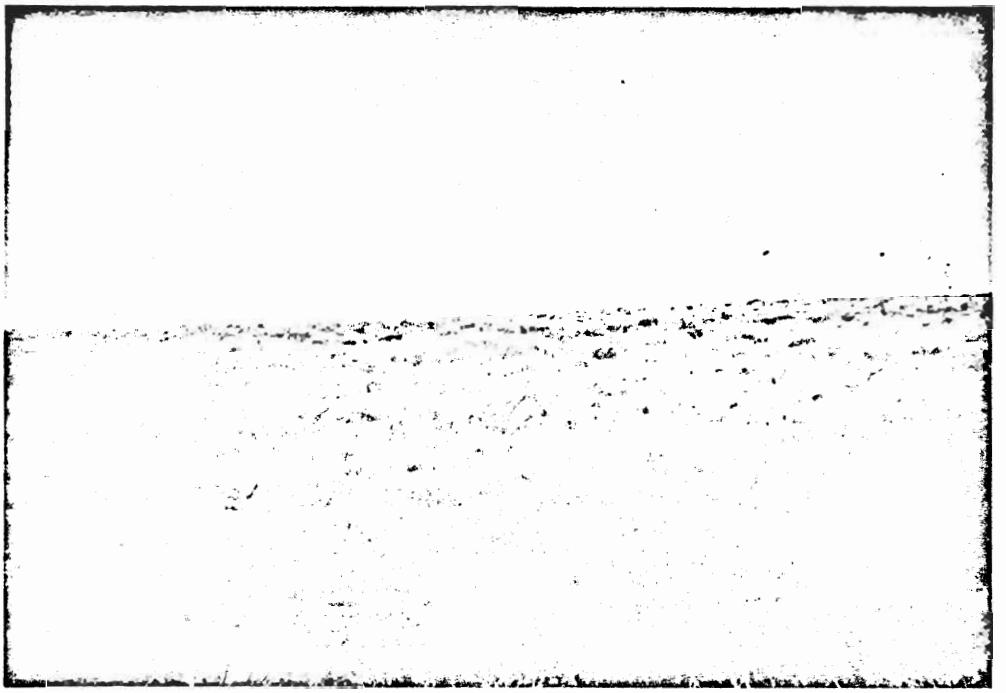
Production
1-0
2-2
3-0
4-12
5-2
6-4
7-0
8-0
9-0
10-24
45 or 450 lbs

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sibu		𝍸 ::	14-28	
	Boer		𝍸	7-14	
	Nupo		:	1-3	
	Orhy		:	1-3	
	Atca	..	:	3-6	
Inc.	Hija		⁘	5-10	
Inv.	LYPA		:	1-2	
	SPHA		𝍸	6-12	
	GUTI	..	𝍸	10-20	
	Leer		:	1-2	
	Lyci		:	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		⁘		5-10	
Hits Dec. & Inc.		⁘			
Tot. Rock		⁘		2-4	
Tot. Litter		⁘		4-8	
Bare Ground	⊠	⊠⊠⊠		39-78	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dx.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #4
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment: Sawtooth Plateau | Date: 4/29/84 | Transect No.: 5
Aerial Photo No.: 14-6 | Pace Interval: 3 | By: Baxter
Game Mgmt.: | Vegetative Type: 1 FC | Slope: 2
Key Area: | Soil: MM.12.182 | Aspect: West

Location Map:

Bearing N50W
Soil plot 14-6 #1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Production
1-0
2-0
3-0
4-0
5-1
6-20
7-0
8-4
9-0
10-0
25 or 250 lbs/AC Air dried

Comments: shallow coarse-textured soil, little evidence of accelerated erosion.

Leaf Measurements (Vigor)

Species	Orby	
1	11	
2	9	
3	7	
4	12	
5	10	
6	4	
7	11	
8	10	
9	9	
10	10	
Tot	93	
Ave	9	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	8	42	50	50	X2=100
Inc.	0	2	2	2	X¼=.50
Inv.	2	46	48	48	X·1=48
Tot.	10	90	100		+52.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard: C | Dated: 4/81

VEGETATION

Forage Cover Index: 11
Composition: 28
Vigor: 9
Total: 48
Cool Season:
Condition Class: Fair
Current Trend: →
Trend Indicators:

SOIL STABILITY

Bare Soil Index: 3
Soil Disturbance Factor: 35
Total: 38
Condition Class: P
Current Trend: →

Summary of Hits

Hits, all Plants: 10
Hits, all Rock: 0
Litter: 2
Bare Soil: 88
Total: 100
Hits, Dec. + Inc: 8
Cool Season: —

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	Sihy	—	—	—	Lypa	—	—
21	22	23	24	25	26	27	28	29	30
—	—	—	—	Stco	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
—	—	—	—	—	—	—	—	L	—
41	42	43	44	45	46	47	48	49	50
—	—	—	—	—	—	—	—	Stco	Orby
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

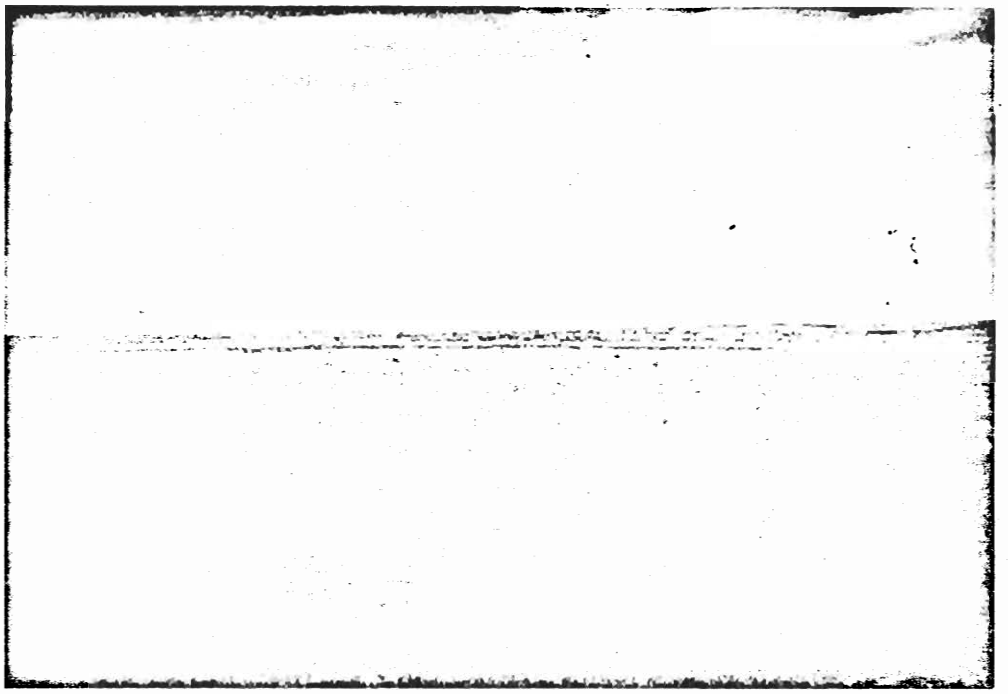
	Sprout		Sapling		Pole	Mature	Decad
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
S												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Orby	•	7	7 - 14	
	Boer		::	4 - 8	
	Stco	••	::	5 - 10	
	Sihy	•	4	9 - 18	
Inc.					
	EPHE		•	1 - 2	
Inv.	SPHA		4	16-32	
	GUTI		7	6-12	
	Lece		•	1-2	
	LYPA	•		1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		::		5-10	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter		•		1-2	
Bare Ground :: ⊠		⊠ ⊠ ⊠		44-88	
Tot. Cool Season					



Pace Transect #5
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment Sadup Plateau Date 4/29/84 Transect No. 6

Aerial Photo No. 14-5 Place Interval 3 By Baxter

Game Mgmt. _____ Vegetative Type 16 NC Slope 25

Key Area _____ Soil M.U. 184 Aspect N20E

Location Map:

Soil plot # 14-5 #1
Bearing: Due south

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species	Orhy	Stsp
1	7	8
2	6	7
3	7	8
4		10
5		12
6	Need more	10
7		11
8		12
9		14
10		8
Tot	20	100
Ave	6.7	10

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	4	4	4	X2= 8
Inc.	5	11	16	16	X¼= 4
Inv.	37	43	80	80	X-1=-80
Tot.	42	58	100		-68
Cool Seas.	0				

CONDITION AND TREND RATING 4-81

from Scoredcard C Dated _____

VEGETATION

Forage Cover Index 7
Composition 6
Vigor 8
Total 21
Cool Season . . . . . P
Condition Class . . . →
Current Trend . . . . _____
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 30
Soil Disturbance Factor 20
Total 50
Condition Class . . . . . F
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 42
Hits, all Rock 40
Litter 2
Bare Soil . . . 16
Total 100
Hits, Dec. + Inc 5
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetatic and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Cora	Cora	Cora	Cora	Cora		
R	R	R	Cora	Cora	Cora	Cora	Cora	—	—
11	12	13	14	15	16	17	18	19	20
	Cora		Cora		Cora			Cora	
—	Cora	R	Cora	—	Cora	R	—	R	R
21	22	23	24	25	26	27	28	29	30
	Cora		Cora	Cora		GUTI	Yuca		Cora
R	Cora	R	Cora	Cora	—	R	R	R	R
31	32	33	34	35	36	37	38	39	40
Cora					LYCI		Cora		
R	R	—	—	R	LYCI	R	R	R	R
41	42	43	44	45	46	47	48	49	50
	—	Thmo					Thmo	Cora	
L	R	Thmo	R	R	R	R	R	Cora	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

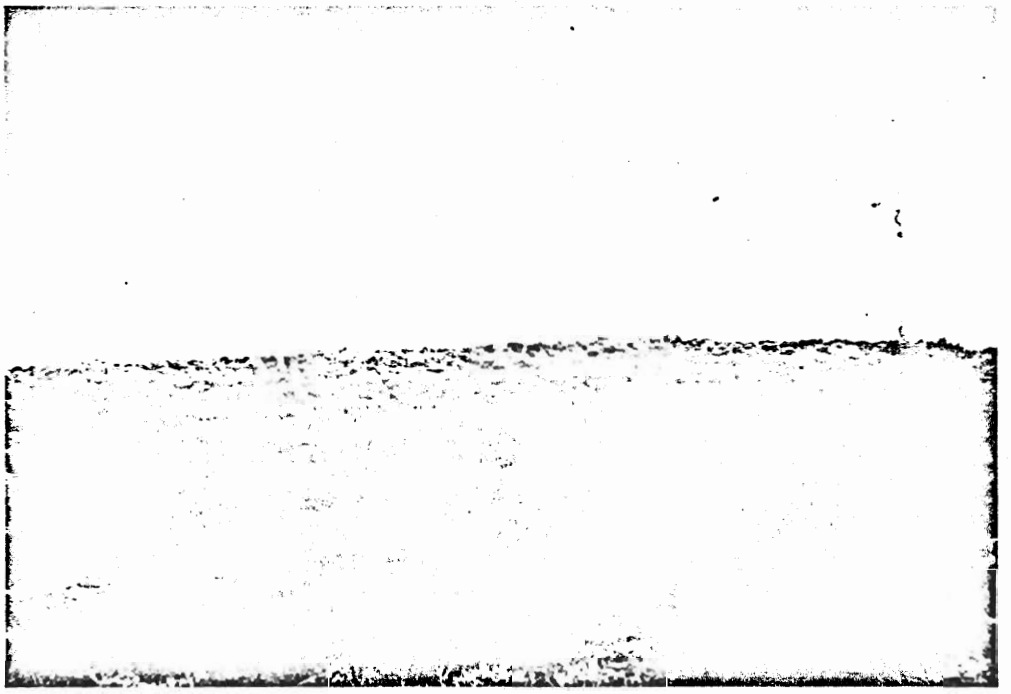
	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
sub.							

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot:												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
	Orhy		.	1-2	
	Sihy		.	1-2	
Inc.					
	Cora (100%)	⊠ ⊠	⊠ ⊠	35-70	1-10%
	Trel		:	3-6	
Inv.					
	GUTI	.		1-2	
	Yuba	.		1-2	
	Thmo	:	.	3-6	
	LYCI	.	.	2-4	
	Leer		.	1-2	
	OPUN		.	1-2	
	SPHA		.	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				21-42	
Hits Dec. & Inc.					
Tot. Rock	⊠ ⊠			20-40	
Tot. Litter	.			1-2	
Bare Ground	□			8-16	
Tot. Cool Season					



Pace Transect #6
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment Sanup Plateau Date 4-29-84 Transect No. 7

Aerial Photo No. 14-6 Place Interval 3 By

Game Mgmt. Vegetative Type 1 FC Slope 1-2%

Key Area Soil M.U. 182 Aspect E-SE

Location Map:

Bearing N20°E
Soil Plot # 14-6#3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Production
1 - 0
2 - 0
3 - 0
4 - 0
5 - 0
6 - 0
7 - 0
8 - 0
9 - 3
10 - 7
10 = 100 #/Acre

Comments:

Leaf Measurements (Vigor)

Species	Sihy	
1	3	
2	4	
3	3	
4	4	
5	3½	
6	5	
7	4½	
8	4	
9	5	
10	4½	
Tot	40.5	
Ave	4.1	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	32	34	34	X2= 68
Inc.	0	0	0	0	X½= 0
Inv.	10	56	66	66	X-1= -66
Tot.	12	88	100		+2
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 3
Composition 18
Vigor 4
Total 25
Cool Season . . . . .
Condition Class . . . P
Current Trend . . . . →
Trend Indicators

SOIL STABILITY

Bare Soil Index 4
Soil Disturbance Factor 20
Total 24
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 12
Hits, all Rock 2
Litter 2
Bare Soil . . . 84
Total 100
Hits, Dec. + Inc 2
Cool Season

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	Siby	—	L
11	12	13	14	15	16	17	18	19	20
		GUTI							
—	—	L	—	—	—	—	—	R	—
21	22	23	24	25	26	27	28	29	30
—	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
				LYCI					
—	—	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
			LYCI				LYCI		
—	—	—	LYCI	Scbr	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

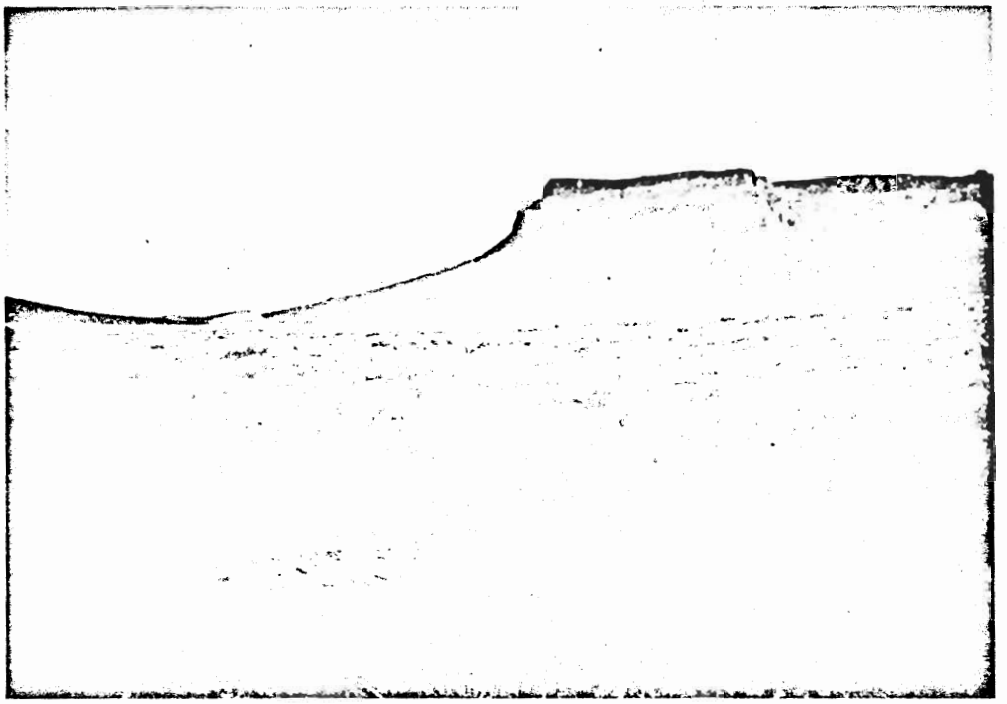
	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Siby	•	⊠ ••	13-26	
	Orhy		••	2-4	
	Atcd		••	2-4	
Inc.					
Inv.	SPHA		⊠ ⊠	19-38	
	Leer		••	4-8	
	GUTI	•	••	3-6	
	LYCI	••	••	5-10	
	Mach		•	1-2	
	Scbr	•		1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		6		6-12	
Hits Dec. & Inc.					
Tot. Rock		1		1-2	
Tot. Litter		1		1-2	
Bare Ground		42		42-84	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #8
Sanup Plateau

Total (partial)	Allowable
-10	
-2	
-12	
-2	
-2	
-10	
5-50	
3-6	
-4	
-2	
5-30	
-2	
-12	
3-56	

COMPOSITION BY SIZE CLASS . RIPARIAN . ASPEN

	Sprout		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
...s.							

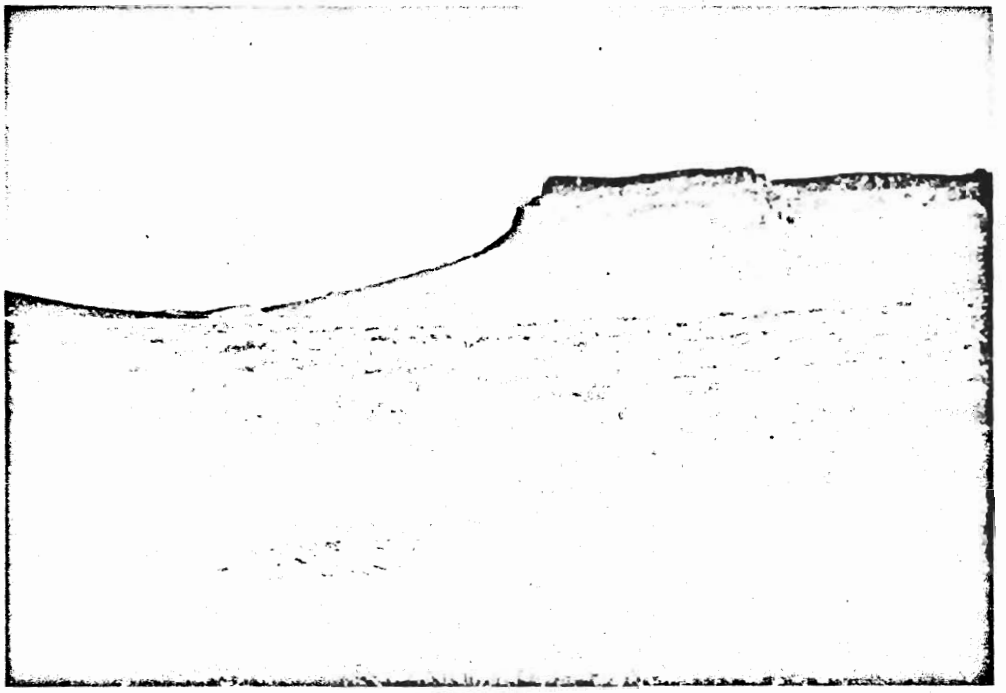
resent:
RIG
PHE

...s	% Comp.	Unavail-able

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Siny		⁝	5-10	
Inc.	Cora	☒⁚	☒⁚	21-54	I-10%
Inv.	GUTI	⁚	☒	12-24	
	Yuba	⁚	·	3-6	
	SPHA		⁚	3-6	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				20-40	
Hits Dec. & Inc.					
Tot. Rock		7		7-14	
Tot. Litter					
Bare Ground		23		23-46	
Tot. Cool Season					

Hits
Corq:
I=6
In=24



Pace Transect #8
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment: Sanup Plateau Date: 4-30-84 Transect No.: 9

Aerial Photo No.: 13-8 Place Interval: 2 By: BAXTER

Game Mgmt.: _____ Vegetative Type: 16 NC Slope: 1-2

Key Area: _____ Soil: M.V. 183 Aspect: North

Location Map:

Bearing: Due South

Soil plot # 13-8#1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: No vigor taken, saw only two grass plants. Very few perennial plants present. Forage production about zero.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7	Nothing Available	
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN-AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	10	10	10	X2= 20
Inc.	6	4	10	10	X½= 2.5
Inv.	34	46	80	80	X-1= -80
Tot.	40	60	100		-57.5
Cool Seas.	0				

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4-81

VEGETATION

Forage Cover Index: 8
Composition: 8
Vigor: 0
Total: 16
Cool Season: _____
Condition Class: VP
Current Trend: →
Trend Indicators: _____

SOIL STABILITY

Bare Soil Index: 15
Soil Disturbance Factor: 10
Total: 25
Condition Class: P
Current Trend: →

Summary of Hits

Hits, all Plants: 40
Hits, all Rock: 14
Litter: —
Bare Soil: 46
Total: 100
Hits, Dec. + Inc: 6
Cool Season: _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Cora	Cora	Cora	Cora						
L	L	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
Cora		YUCCA		Cora		YUCCA	Cora		Cora
L	—	L	—	—	—	—	L	—	Cora
21	22	23	24	25	26	27	28	29	30
Cora				Cora		Cora		Cora	Cora
L	R	—	—	—	R	Cora	—	—	—
31	32	33	34	35	36	37	38	39	40
					Cora				
—	—	R	—	R	R	—	—	—	—
41	42	43	44	45	46	47	48	49	50
	Cora	GUTI			GUTI				GUTI
R	R	L	R	—	GUTI	R	—	—	L
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
...s.							

Present:
ERIG
EPHE

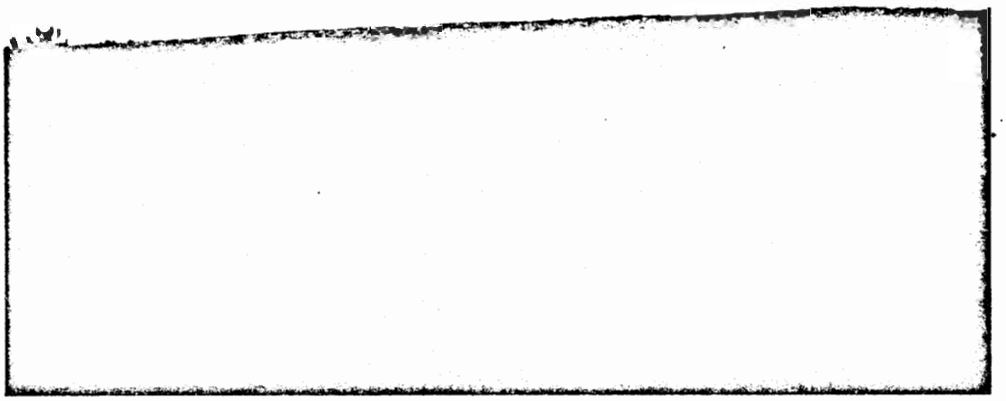
BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
To:												

RANGE COMPOSITION

Class	Species	Hits	Taliy	Total	Allowable
Dec.	Siny		7	5-10	
Inc.	Cora	☒	☒	27-54	I-10%
Inv.	GUTI		☒	12-24	
	Yuba			3-6	
	SPHA			3-6	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				20-40	
Hits Dec. & Inc.					
Tot. Rock		7		7-14	
Tot. Litter					
Bare Ground		23		23-46	
Tot. Cool Season					

Hits Corq:
I: 6
In: 24



Pace Transect #9
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment: Sanup Plateau Date: 4-30-84 Transect No.: 10
Aerial Photo No.: 13-8 Place Interval: 3 By: BAXTER
Game Mgmt.: _____ Vegetative Type: 1 FC Slope: 2
Key Area: _____ Soil: M.U. 182 Aspect: SE

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Location Map:

Bearing: N80°E
Soil plot # 13-8#2
Production
1.0
2.1
3.0
4.0
5.15
6.0
7.0
8.0
9.3
10.5
24 or 240 lbs/acre

Comments: Sihy: 70% use
Stco Orhy: 60% use

Leaf Measurements (Vigor)

Species	Sihy	
1	7½	
2	2½	
3	6	
4	3	
5	4	
6	4	
7	2½	
8	4	
9	3½	
10	4	
Tot	41	
Ave	4.1	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	24	26	26	X.2=52
Inc.	0	12	12	12	X¼=3
Inv.	28	34	62	62	X-1=-62
Tot.	30	70	100		-7
Cool Seas.	0				

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4-81

VEGETATION

Forage Cover Index: 3
Composition: 17
Vigor: 4
Total: 24
Cool Season: _____
Condition Class: Poor
Current Trend: →
Trend Indicators: _____

SOIL STABILITY

Bare Soil Index: 12
Soil Disturbance Factor: 20
Total: 32
Condition Class: P
Current Trend: →

Summary of Hits

Hits, all Plants: 30
Hits, all Rock: 2
Litter: 12
Bare Soil: 56
Total: 100
Hits, Dec. + Inc: 2
Cool Season: _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
GUTI							GUTI		
—	—	L	—	R	—	—	L	L	—
11	12	13	14	15	16	17	18	19	20
	GUTI	GUTI							
—	L	L	—	—	—	—	—	L	—
21	22	23	24	25	26	27	28	29	30
	LYCI		GUTI						
L	L	L	—	MUPO	—	L	—	—	—
31	32	33	34	35	36	37	38	39	40
Cora		GUTI		GUTI		GUTI	GUTI		
Cora	—	L	—	L	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
GUTI					GUTI	GUTI			
—	—	—	—	—	—	L	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Cora classified as invader on deep soils.

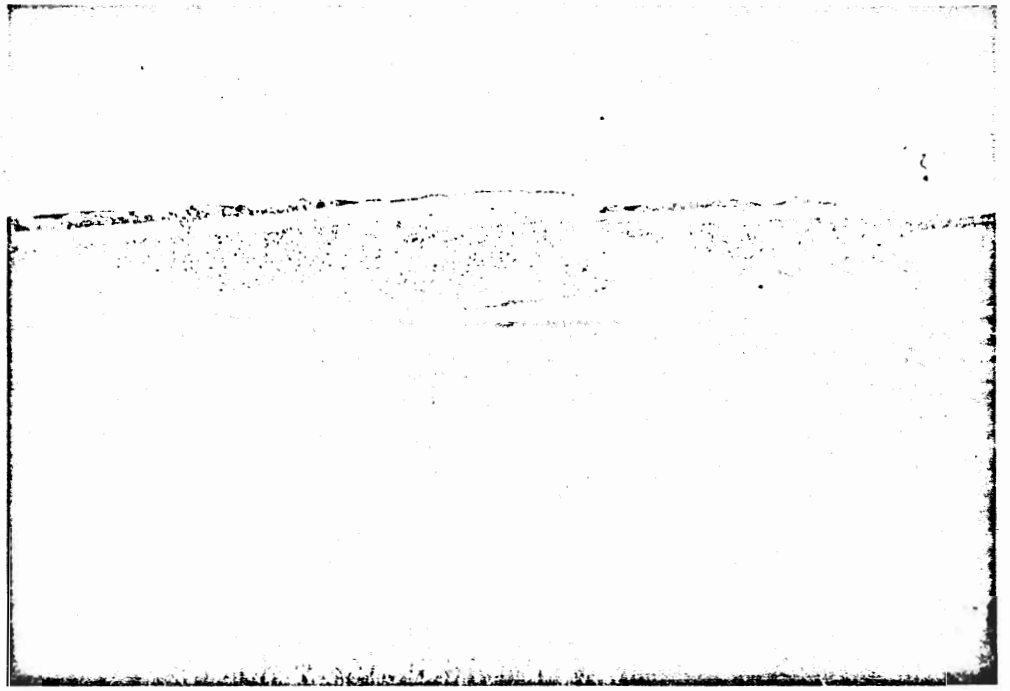
Present
ARIS
SPHA

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		⁘	5-10	
	Orhy		⁚	1-2	
	Sihy		⁖	6-12	
	Mupo	⁚		1-2	
Inc.	Sper		⁚	1-2	
	Hija		⁘	5-10	
Inv.	GUTI	⊠⁚	⊠⁚	25-50	
	Leer	⁚	⁚	3-6	
	LYCI	⁚	⁚	2-4	
	Cova	⁚		1-2	
Rock	(				
	(				
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				15-30	
Hits Dec. & Inc.					
Tot. Rock			1	1-2	
Tot. Litter			6	6-12	
Bare Ground			28	28-56	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #10
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment: Soup Plateau Date: 5-1-84 Transect No.: 11
Aerial Photo No.: 14-8 Place Interval: 2 By: BAXTER
Game Mgmt.: _____ Vegetative Type: 16 PC Slope: 8
Key Area: _____ Soil: M.U. 178 Aspect: S-SW

Location Map:

Bearing: N30°E
Soil plot # 14-8 #1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Zero production Use noted on STIP by wildlife. Tracks of deer + sheep in transect. very few ANNUALS. No cattle sign.

Leaf Measurements (Vigor)

Species		
1	Nothing to measures	
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	10	6	16	16	X¼= 4
Inv.	46	38	84	84	X-1=-84
Tot.	56	44	100	100	-80
Cool Seas.	0				

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4-81

VEGETATION

Forage Cover Index: 13
Composition: 4
Vigor: 0
Total: 17
Cool Season: _____
Condition Class: VP
Current Trend: →
Trend Indicators: _____

SOIL STABILITY

Bare Soil Index: 27
Soil Disturbance Factor: 20
Total: 47
Condition Class: E
Current Trend: →

Summary of Hits

Hits, all Plants: 56
Hits, all Rock: 22
Litter: 2
Bare Soil: 20
Total: 100
Hits, Dec. + Inc: 10
Cool Season: _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetatic and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Cora			EPHE	Cora		Cora		
R	—	—	—	L	R	R	Cora	R	—
11	12	13	14	15	16	17	18	19	20
	EPHE	Cora	Cora	Cora			Cora	Cora	Cora
—	L	L	—	L	L	—	L	—	L
21	22	23	24	25	26	27	28	29	30
Cora	Cora				Cora	Cora	Cora		Cora
—	Cora	R	—	L	R	L	R	—	L
31	32	33	34	35	36	37	38	39	40
Cora					Cora		Cora	Cora	
—	—	R	R	—	R	—	R	R	R
41	42	43	44	45	46	47	48	49	50
Cora	Cora	Cora	YUCCA	Cora		YUCCA		Cora	
—	—	—	—	Cora	R	L	R	R	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Present
CHRY
Agut
Arfe
Stsp
Sihy
Orhy

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.	Cora	XX ::	X	43-86	I=10%
	EPHE	:	:	3-6	
Inv.	YUCCA	:	:	3-6	
	Stpu		:	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				28-56	
Hits Dec. & Inc.					
Tot. Rock	11			11-22	
Tot. Litter	1			1-2	
Bare Ground	10			10-20	
Tot. Cool Season					

Hits
Coeq
I=6
In=42



Pace Transect #11
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment: Sanup Plateau Date: 5/1/84 Transect No.: 12
Aerial Photo No.: 14-8 Place Interval: 3 By: Baxter
Game Mgmt.: _____ Vegetative Type: 16 PC Slope: 10-15
Key Area: _____ Soil: M.U. 178 Aspect: W

Location Map:
Bearing N80W
Soil plot #14-8#2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Zero production
very few Annuals

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6	Nothing to Measure	
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	4	8	12	12	X¼= 3
Inv.	36	52	88	88	X-1= -88
Tot.	40	60	100	100	-85
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4/81

VEGETATION

Forage Cover Index: 5
Composition: 3
Vigor: 0
Total: 8
Cool Season: _____
Condition Class: VP
Current Trend: →
Trend Indicators: _____

SOIL STABILITY

Bare Soil Index: 37
Soil Disturbance Factor: 20
Total: 57
Condition Class: F
Current Trend: →

Summary of Hits

Hits, all Plants: 40
Hits, all Rock: 50
Litter: —
Bare Soil: 10
Total: 100
Hits, Dec. + Inc: 4
Cool Season: _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Cora						Cora		
R	R	—	R	R	R	—	L	R	R
11	12	13	14	15	16	17	18	19	20
EPHE			Cora					Cora	Cora
L	R	R	R	R	R	R	—	R	Cora
21	22	23	24	25	26	27	28	29	30
		Cora	Cora	Cora	Cora				Cora
R	R	—	—	Cora	R	R	R	R	Cora
31	32	33	34	35	36	37	38	39	40
Cora						Cora	Cora	Cora	
L	R	R	R	R	—	Cora	R	L	R
41	42	43	44	45	46	47	48	49	50
Cora	Cora			Cora		Cora			Cora
—	R	R	—	L	R	Agave	R	R	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Present
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COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

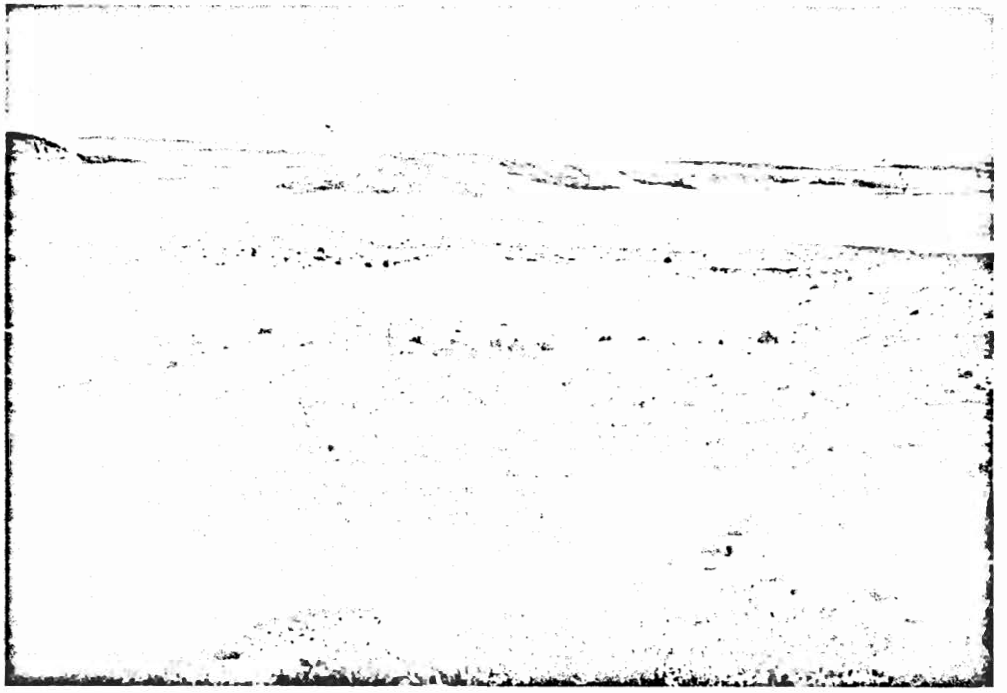
BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.	Cora	⊠ ⊠	⊠ ⊠ ⊠	48-96	1-10%
	EPHE			1-2	
Inv.	Yucca			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				20-40	
Hits Dec. & Inc.					
Tot. Rock		25		25-50	
Tot. Litter					
Bare Ground		5		5-10	
Tot. Cool Season					

Hits
Cora
I-4
In=34



Pace Transect #12
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 5-1-84 Transect No. 15
Aerial Photo No. 14-8 Pace Interval 3 By BAXTER
Game Mgmt. _____ Vegetative Type 2/16 NC Slope 6
Key Area _____ Soil SHALLOW MLL 186 Aspect N-NW

Location Map:

SOIL PLOT 14-8-3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Brtel and Brrol abundant - Livestock use common, no production of perennial grasses

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5	NOTHING TO MEASURE	
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 4
Inc.	0	10	10	10	X¼=2.5
Inv.	0	88	88	88	X-1=-88
Tot.	0	100	100	100	-81.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 0
Composition 3
Vigor 0
Total 3
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 6
Soil Disturbance Factor 25
Total 31
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 0
Hits, all Rock 24
Litter 0
Bare Soil . . . 76
Total 100
Hits, Dec. + Inc 0
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	R	—	—
11	12	13	14	15	16	17	18	19	20
—	R	R	—	—	—	—	R	—	R
21	22	23	24	25	26	27	28	29	30
—	—	R	—	—	—	—	—	—	R
31	32	33	34	35	36	37	38	39	40
—	R	—	—	—	—	—	—	R	—
41	42	43	44	45	46	47	48	49	50
—	R	—	—	—	—	—	R	R	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Seplino		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

Present
GUTI
Arfe
EPHE

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sihy		·	1-2	
Inc.					
	Cora		⊓	6-12	1-10%
Inv.	Yucca		⊠⊓	18-36	
	Spha		⁚	3-6	
	Lycium		·	1-2	
	Annuals		⊠⊠·	21-42	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants					
Hits Dec. & Inc.					
Tot. Rock		12		12-24	
Tot. Litter					
Bare Ground		38		38-76	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
b												
Tot.												
C												
Tot.												



Pace Transect #13
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-1-84 Transect No. 14
Aerial Photo No. 14-8 Place Interval 3 By BAXTER
Game Mgmt. _____ Vegetative Type 1-FC Slope 1-2%
Key Area _____ Soil MU. 182 Aspect W-NW

Location Map:

BEARING N62W
SOIL PLOT 14-8-5

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

PRODUCTION

1 - 5
2 - 5
3 - 0
4 - 0
5 - 0
6 - 0
7 - 0
8 - 0
9 - 0
10 - 0

HAVE A POOR YEAR FOR ANNUALS AND THE PRENNIAL GRASSES WILL BE NOT MUCH HEAVIER

PRODUCTION MORE LIKE 200 # /AC

Comments: Heavey use: Hitg:25% Boer:25% Atca:10% Orhy: 65% Stco:75%. This site appears to be loosing Stco, Orhy, Boer to Hitg, Annuals heavey.

Leaf Measurements (Vigor)

Species	Orhy	
1	6	
2	11	
3	12	
4	11 1/2	
5	9	
6	8	
7	5 1/2	
8	16	
9	9	
10	4	
Tot	92	
Ave	9	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	16	18	18	X2= 36
Inc.	3	26	29	29	X¼= 7
Inv.	7	46	53	53	X-1=-53
Tot.	12	88	100	100	-10
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 7
Composition 16
Vigor 9
Total 32
Cool Season . . . . . ____
Condition Class . . . P
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 6
Soil Disturbance Factor 15
Total 21
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 12
Hits, all Rock 4
Litter 6
Bare Soil . . . 78
Total 100
Hits, Dec. + Inc 5
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
		Lyci							
—	—	—	—	—	—	—	—	—	L
11	12	13	14	15	16	17	18	19	20
Boer	—	—	—	—	L	—	—	—	—
21	22	23	24	25	26	27	28	29	30
—	Hija	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
								Cora	
L	—	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
	EPHE							Yucca	
—	L	R	—	—	—	R	—	Yucca	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
...s.							

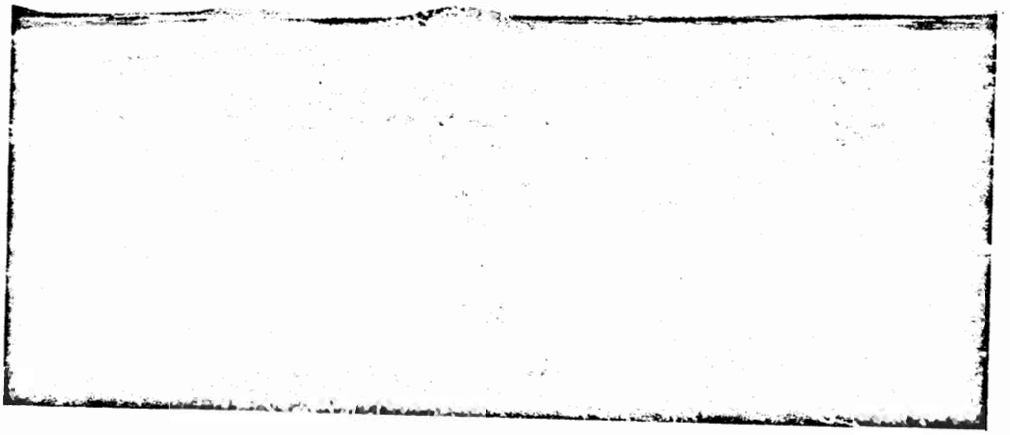
Present
Lypa
ERDI
Come
Erin

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sihy		··	2-4	
	ATCA		·	1-2	
	Boer	·	·	2-4	
	Stco		··	3-6	
	Orhy		·	1-2	
Inc.	Spar		··	3-6	
	Hija	·	⊠:	13-26	I-15%
	EPHE	·	··	4-8	
	Cora	·		1-2	
Inv.	Lycium Sp.	·		1-2	
	GUTI		□	8-16	
	Spha		□	7-14	
	Leer		·	1-2	
	Erin		·	1-2	
	Yucca	·	·	2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				6-12	
Hits Dec. & Inc.					
Tot. Rock		2		2-4	
Tot. Litter		3		3-6	
Bare Ground		39		39-78	
Tot. Cool Season					

BROWSE CONDITION

Specim	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #14
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment: Sanup Plateau Date: 5-2-84 Transect No.: 15
Aerial Photo No.: _____ Place Interval: 3 By: Baxter
Game Mgmt.: _____ Vegetative Type: 16 NC Slope: 0-5
Key Area: _____ Soil: M-U-178 Aspect: SW

Location Map:

Bearing N 20W
Soil Plot 13-B #3

Inclusion in PC Mapping Unit.

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Found 3 or 4 Sihy. 1 Polo. Very few annuals. Production zero

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	4	4	4	X2=8
Inc.	4	8	12	12	X¼=3
Inv.	32	52	84	84	X-1=-84
Tot.	36	64	100		-73
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4/81

VEGETATION

Forage Cover Index: 5
Composition: 5
Vigor: 0
Total: 10
Cool Season: _____
Condition Class: VP
Current Trend: →
Trend Indicators: _____

SOIL STABILITY

Bare Soil Index: 32
Soil Disturbance Factor: 25
Total: 57
Condition Class: F
Current Trend: →

Summary of Hits

Hits, all Plants: 36
Hits, all Rock: 48
Litter: 2
Bare Soil: 14
Total: 100
Hits, Dec. + Inc: 4
Cool Season: _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
					Corq				
–	R	R	R	R	–	R	R	R	R
11	12	13	14	15	16	17	18	19	20
			Corq				Corq	Corq	
R	R	L	–	R	R	R	L	L	R
21	22	23	24	25	26	27	28	29	30
		Corq	Corq		Yucc			Yucc	Corq
–	R	–	R	–	–	R	R	L	R
31	32	33	34	35	36	37	38	39	40
Corq			Corq		Corq	Corq	Corq		
L	R	R	–	R	R	R	L	–	–
41	42	43	44	45	46	47	48	49	50
	Corq					Corq		Corq	Corq
–	–	R	R	–	R	Corq	R	Corq	L
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Pofe
Rhtr
Come
Chwa
Than

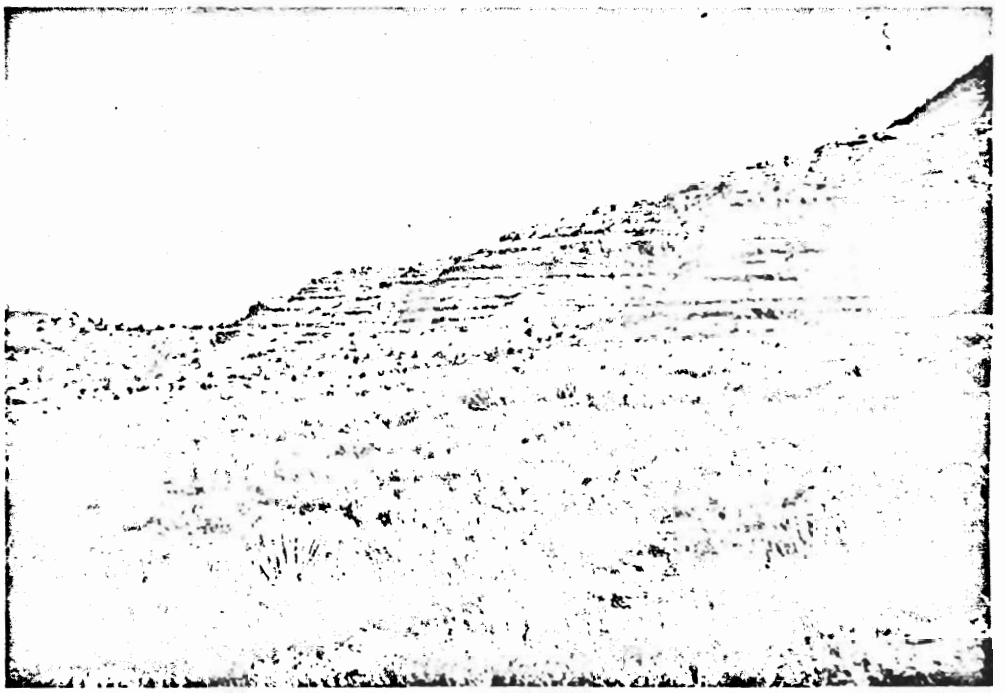
BROWSE CONDITION

Specim	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sihy		•	1-2	
	Stco		•	1-2	
Inc.	Corq	[illegible]	[illegible]	45-90	1-10%
	EPHE		•	1-2	
Inv.	Yucc.	••		2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		18		18-36	
Hits Dec. & Inc.					
Tot. Rock		24		24-48	
Tot. Litter		1		1-2	
Bare Ground		7		7-14	
Tot. Cool Season					

Hits
Corq
I-4
In-28



Pace Transect #15
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 5-2-84 Transect No. 6

Aerial Photo No. 13-8 Place Interval 3 By BAXTER

Game Mgmt. _____ Vegetative Type 1 FC Slope 1-2

Key Area _____ Soil M.U. 182 Aspect S-SE

Location Map:

BEARING S10E
SOIL PLOT 13-8-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.690
8								
9								
10								
tot								
avg								

PRODUCTION
1 - 15
2 - 0
3 - 10
4 - 20
5 - 0
6 - 0
7 - 1
8 - 0
9 - 4
10 - 0

TOTAL = 460 #/Ac

Comments: Production more like 400 lbs Heavey Annuals Utilization on Mupo: 40%, Atca: 100%, Sihy: 70%, Stco: 70%, Orhy: 70%, Hija: 25%, Boer: 15% Use of Sihy, Stco Orhy extreme

Leaf Measurements (Vigor)

Species	Hija	
1	3	
2	2½	
3	4	
4	2½	
5	4	
6	3	
7	3½	
8	2	
9	3	
10	4½	
Tot	32	
Ave	3	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	36	40	40	X2= 80
Inc.	4	15	19	19	X¼= 5
Inv.	16	25	41	41	X-1=-41
Tot.	24	76	100	100	+44
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 11
Composition 26
Vigor 1
Total 38
Cool Season . . . . . ____
Condition Class . . . P
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 9
Soil Disturbance Factor 20
Total 29
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 24
Hits, all Rock —
Litter 10
Bare Soil . . . 66
Total 100
Hits, Dec. + Inc 8
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
						Hija		LYCI	
—	—	L	—	—	L	L	—	L	—
11	12	13	14	15	16	17	18	19	20
					GUTI	Atca			
—	—	—	—	—	L	—	—	—	Hija
21	22	23	24	25	26	27	28	29	30
		GUTI							
—	—	L	—	—	L	—	L	L	—
31	32	33	34	35	36	37	38	39	40
—	GUTI					GUTI	GUTI		
—	L	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
									GUTI
—	—	—	Hija	—	—	—	Boer	—	L
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Stco
CHOL
EPHE
Corq
Come
OPDO
LYCI
Sihy

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Drby		:	2-4	
	Mupb		::	2-4	
	Boer	:	⊠ :	14-28	
	Atca	:	:	2-4	
Inc.	Hija	::	⊠	12-24	E-15%
	Sper	:	:	2-4	
	Arar	:	:	1-2	
Inv.	GUTI	:7	::	9-18	
	SPHA		::	2-4	
	Bamu		::	2-4	
	Leer		:	1-2	
	LYCI	:		1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		12		12-24	
Hits Dec. & Inc.					
Tot. Rock		ø		ø	
Tot. Litter		5		5-10	
Bare Ground		33		33-66	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec	Dd	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment: Sanup Plateau Date: 4/30/84 Transect No.: 8
Aerial Photo No.: 14-7 Place Interval: 3 By: BAXTER + GALEANO
Game Mgmt.: _____ Vegetative Type: 1 FC Slope: 1
Key Area: _____ Soil: M.U. 182 incl. Aspect: NE-E

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Location Map:
Bearing: Due North
Soil plot # 14-7 # 1

Production
1-0
2-0
3-0
4-0
5-5
6-1
7-5
8-12
9-0
10-0
23 or 230 lbs/acre

Comments: Use much higher
Sihy: 60-70% Orhy: 40-50%
Hity: 15-20% Stco: 35-40%
Boer: 10-15%
Evlg: 70%, but not going low on stalk yet. Afca: 50%
heavey annuals

Leaf Measurement: (Vigor)

Species	Sihy	
1	3½	
2	5½	
3	4	
4	6	
5	4½	
6	3	
7	4	
8	3½	
9	4½	
10	5	
Tot	43.5	
Ave	4.4	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	32	32	32	X2 = 64
Inc.	0	12	12	12	X¼ = 3
Inv.	6	50	56	56	X-1 = -56
Tot.	6	94	100		+11
Cool Seas.	0				

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4-81

VEGETATION

Forage Cover Index: 0
Composition: 20
Vigor: 4
Total: 24
Cool Season: _____
Condition Class: P
Current Trend: →
Trend Indicators: _____

SOIL STABILITY

Bare Soil Index: 4
Soil Disturbance Factor: 20
Total: 24
Condition Class: P
Current Trend: →

Summary of Hits

Hits, all Plants: 6
Hits, all Rock: —
Litter: 8
Bare Soil: 86
Total: 100
Hits, Dec. + Inc: 0
Cool Season: _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
					LYCI	GUTI			
—	—	—	—	—	L	GUTI	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	23	27	28	29	30
		GUTI							
—	—	—	L	—	—	L	—	—	—
31	32	33	34	35	36	37	38	39	40
—	—	—	—	—	—	—	—	L	L
41	42	43	44	45	46	47	48	49	50
—	—	—	—	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	83	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS : RIPARIAN : ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sihy		⊠	10-20	
	Boer		::	3-6	
	Orhy		::	2-4	
	Euld		·	1-2	
			·	1-2	
Inc.	Sper		·	1-2	
	Hija		::	5-10	
Inv.	GUTI	:	::	5-10	
	SPHA	:	⊠ ::	14-28	
	LYCI	·	::	3-6	
	Muri		·	1-2	
	Leer		::	3-6	
	LEPI		·	1-2	
	Sebr		·	1-2	
	(				
Rock	⁴				
	(				
Tot. Dec.					
Tot. Inc.					
Tot. Inv.				3-6	
Hits All Plants					
Hits Dec. & Inc.					
Tot. Rock				4-8	
Tot. Litter		::		43-86	
Bare Ground					
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #16
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWUP PLATEAU Date 5-7-84 Transect No. 17
Aerial Photo No. 12-9 Place Interval 3 By SHARROW - BREWER
Game Mgmt. _____ Vegatative Type 1 FC Slope 2%
Key Area _____ Soil M.U. 182 Aspect SE

Location Map:

BEARING S 20 E
SOIL PLOT 12-9-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production 50 to 75 lbs/Acre, mostly from Sebr. Complete absence of cool season species. Erosion not significant. Vigor low.

Leaf Measurements (Vigor)

Species	Sebr	Hija
1	1.0	2.0
2	1.0	2.5
3	.5	2.0
4	.5	2.0
5	.5	1.5
6	1.0	2.5
7	0.5	2.5
8	0.5	2.0
9	0.5	3.0
10	1.0	1.5
Tot	7.0	21.5
Ave	1	2

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 4
Inc.	0	4	4	4	X¼= 1
Inv.	8	86	94	94	X-1=-94
Tot.	8	92	100	100	= 89
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 0
Composition 2
Vigor 1
Total 3
Cool Season . . . . . ____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 3
Soil Disturbance Factor 15
Total 18
Condition Class . . . . . VP
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 8
Hits, all Rock 0
Litter 2
Bare Soil . . . 90
Total 100
Hits, Dec. + Inc 0
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetatic and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	Scbr	—	—	—	—	—	Scbr	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	23	27	28	29	30
—	—	—	—	—	—	—	—	—	Scbr
31	32	33	34	35	36	37	38	39	40
—	—	—	—	—	—	Scbr	—	—	—
41	42	43	44	45	46	47	48	49	50
—	—	—	—	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	78	79	80
81	82	83	84	85	85	87	83	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

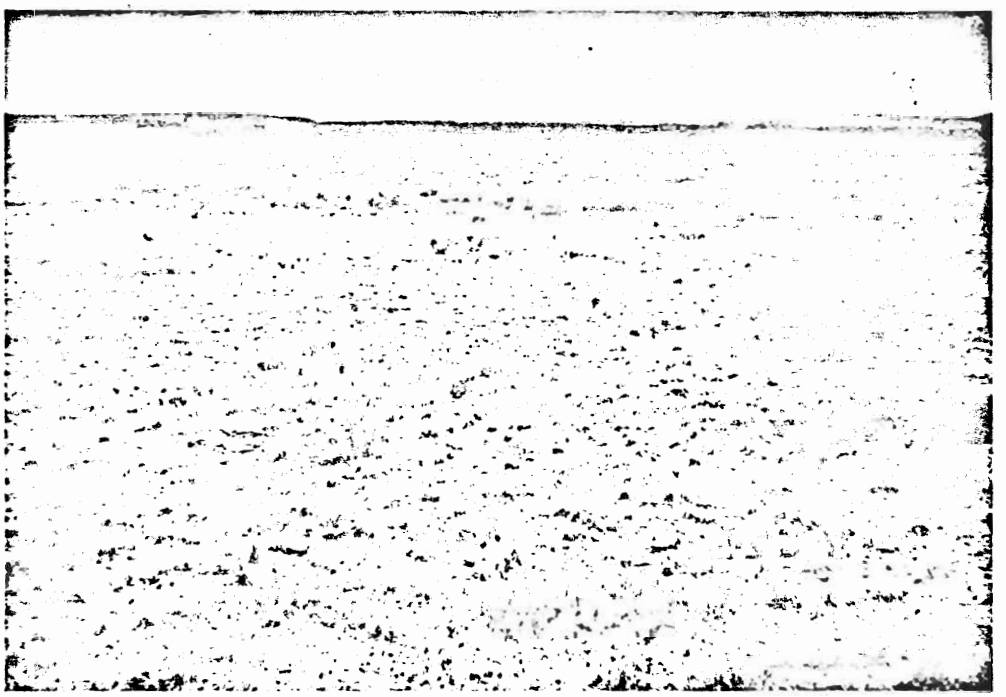
Present:
Atcq
LYCI
Spce
Asae
OPUN

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
					—							
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		·	1-2	
Inc.	Hisa		:	2-4	
Inv.	Scbr	::	⊠⊠⊠□	42-84	
	ERIO		·	1-2	
	SPHE		·	1-2	
	GUTI		:	3-6	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				4-8	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter				1-2	
Bare Ground		45		45-90	
Tot. Cool Season					



Pace Transect #17
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 5-7-84 Transect No. 18
Aerial Photo No. 12-10 Pace Interval 3 By SHARROW-BREWER
Game Mgmt. _____ Vegetative Type 9 NC Slope 13%
Key Area _____ Soil MU. 191 Aspect N

Location Map:

BEARING N65E
SOIL PLOT 12-10-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production 225 lb/Acre. Geologic erosion prevalent. Shallow soils

Leaf Measurements (Vigor)

Species	Arar.
1	3.5
2	4.0
3	4.0
4	5.0
5	4.5
6	3.0
7	3.0
8	3.5
9	3.0
10	4.5
Tot	38.0
Ave	3.8

CROWN DENSITY (ASPEN-AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	3	9	12	12	X¼= 3
Inv.	19	69	88	88	X1= 88
Tot.	22	78	100	100	= 85
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 4
Composition 3
Vigor 3
Total 10
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 12
Soil Disturbance Factor 24
Total 36
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 22
Hits, all Rock 20
Litter . . . . . —
Bare Soil . . . 58
Total 100
Hits, Dec. + Inc 3
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Cora			Quun/Q	Cora				
—	—	—	—	L	—	R	R	—	—
11	12	13	14	15	16	17	18	19	20
		Cora						Cora	
—	—	Cora	—	R	—	—	—	—	—
21	22	23	24	25	23	27	28	29	30
Pied							Cora		
—	—	—	—	R	R	—	—	R	—
31	32	33	34	35	36	37	38	39	40
Cora									Cora
Cora	—	—	—	—	—	—	—	—	Cora
41	42	43	44	45	46	47	48	49	50
		Cora	Cora						
R	R	Cora	—	R	R	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	78	77	78	79	80
81	82	83	84	85	83	87	88	83	90
91	92	93	94	95	93	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
OPUN
Ecte
POA
Thmo

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot:												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.	Cora	[X]	[X] [X]	31-62	I=10%
	Epui			1-2	
Inv.	Quun/Qutu			2-4	
	Arar-l			2-4	
	Ausa		1	5-10	
	Pied			3-6	
	Agut			2-4	
	Yuba			3-6	
	Asar			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				11-22	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter		10		10-20	
Bare Ground					
Tot. Cool Season		29		29-58	

Hits
CORA
I = 3
In = 15



Pace Transect #18
Sanup Plateau



USDA Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 5-7-84 Transect No. 19
Aerial Photo No. 11-3 Place Interval 3 By SHARROW - BREWER
Game Mgmt. _____ Vegetative Type 16 NC Slope 2%
Key Area _____ Soil MU 183 Aspect NE

Location Map:

BEARING S46W
SOIL PLOT 11-3-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production less than 25 lbs/Acre Shallow soils

Leaf Measurements (Vigor)

Species		
1		
2		
3	NO GRASSES AVAILABLE	
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN-AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	4	10	14	14	X¼=3.5
Inv.	20	66	86	86	X-1=-86
Tot.	24	76	100	100	-82.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 3
Vigor 0
Total 8
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 10
Soil Disturbance Factor 30
Total 40
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 24
Hits, all Rock 14
Litter . . . . . —
Bare Soil . . . 62
Total 100
Hits, Dec. + Inc 4
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Cora				Cora		
—	—	—	—	—	—	R	L	R	—
11	12	13	14	15	16	17	18	19	20
		Cora	Agut						
—	—	R	Agut	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
				Yuba			Cora		Yuba
—	—	—	—	—	—	—	Cora	—	Yuba
31	32	33	34	35	36	37	38	39	40
Cora						Cora			Cora
Cora	—	R	—	—	R	Cora	R	—	Cora
41	42	43	44	45	46	47	48	49	50
							Agut		Epvi
R	—	—	—	—	—	R	Agut	—	Epvi
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole.	Mature	Decd
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
OPDO
HYME

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Teliv	Total	Allowable
Dec.					
Inc.	Epvi	·	·	2-4	
Inv.	Cora	[illegible]	[illegible]	33-66	I-10%
	Yuba	:	:	4-8	
	Bamu	:	:	3-6	
	Agut	:	:	4-8	
	Gusa	:	:	3-6	
	Thmo		·	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		12		12-24	
Hits Dec. & Inc.					
Tot. Rock		7		7-14	
Tot. Litter					
Bare Ground		31		31-62	
Tot. Cool Season					

Hits
CORA: [illegible]
I=2
In=12



Pace Transect #19
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-8-84 Transect No. 20
Aerial Photo No. 12-9 Place Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 16 NC Slope 4%
Key Area _____ Soil M.U. 183 Aspect ENE

Location Map:

BEARING WEST
SOIL PLOT 12-9-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: less than 25 pounds/acre: Grasses present only under shrubs. small weak plants

Leaf Measurements (Vigor)

Species	Stsp	
1	9	
2	6	
3	4	
4	6	
5	5.5	
6	7.5	
7	4.5	
8	5	
9	6	
10	6	
Tot	59.5	
Ave	5.9	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	6	8	14	14	X¼=3.5
Inv.	16	70	86	86	X-1=-86
Tot.	22	78	100	100	-82.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 8
Composition 3
Vigor 2
Total 15
Cool Season . . . . . ____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 9
Soil Disturbance Factor 30
Total 39
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 22
Hits, all Rock 12
Litter . . . . . -
Bare Soil . . . 66
Total 100
Hits, Dec. + Inc 6
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
		Cora							Cora
—	—	L	—	R	—	R	—	—	—
11	12	13	14	15	16	17	18	19	20
	Yuba					Cora	Cora	Cora	
—	Yuba	—	—	R	—	Cora	L	Cora	—
21	22	23	24	25	23	27	28	29	30
						Epvi			
—	—	—	—	—	—	Epvi	—	—	—
31	32	33	34	35	38	37	38	39	40
						Gusa		Gusa	
—	—	—	R	—	—	Gusa	R	L	—
41	42	43	44	45	45	47	48	49	50
Yuba						Cora			
Yuba	—	—	—	—	—	L	—	R	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	78	79	80
81	82	83	84	85	83	87	88	89	90
91	92	93	94	95	93	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Sihy
Asar
Orhy
Agut

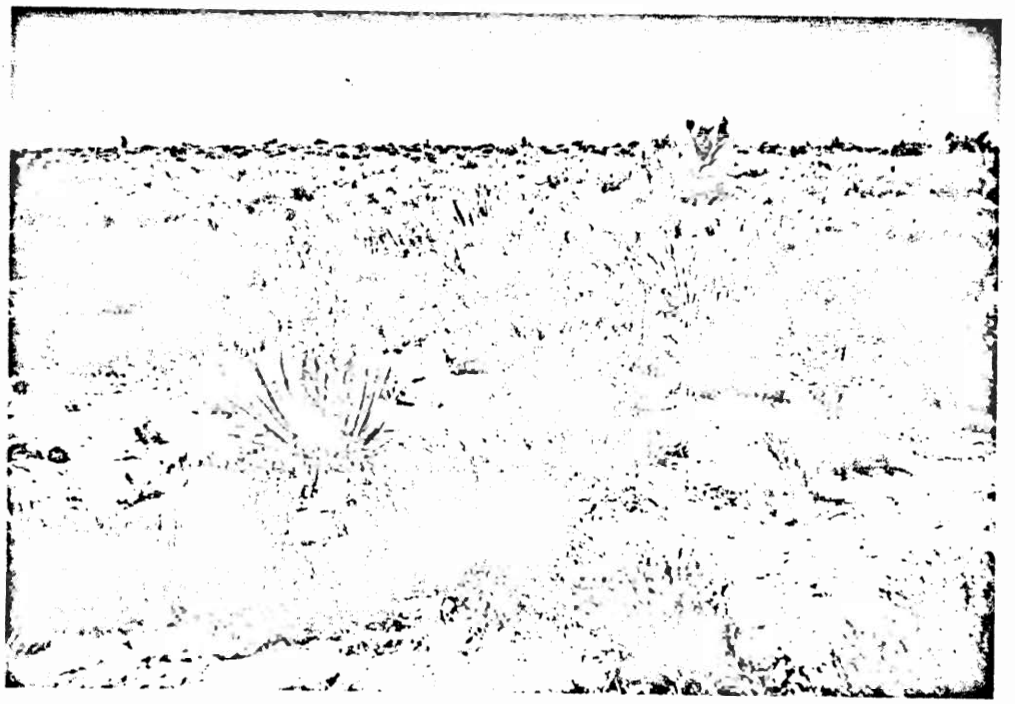
RANGE COMPOSITION

Class	Species	Hits	Teliv	Total	Allowable
Dec.					
Inc.	Cora	1	☒	1-34	I-10%
	Epvi	•		1-2	
	Stsp		•	1-2	
Inv.	Gusa	:	☒☒	27-54	
	Yuba	:	•	3-6	
	Scbr		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		11		11-22	
Hits Dec. & Inc.					
Tot. Rock		6		6-12	
Tot. Litter					
Bare Ground		33		33-66	
Tot. Cool Season					

Hits
Coeq
I=9
In=8

BROWSE CONDITION

Specim	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot												



Pace Transect #20
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-8-84 Transect No. 21

Aerial Photo No. 12-9 Pace Interval 3 By SHARROW BREWER

Game Mgmt. _____ Vegetative Type 16 NC Slope 3%

Key Area _____ Soil M.U. 183 Aspect E

Location Map:

BEARING WBE
SOIL PLOT 12-9-3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: No Forage, very little use observed. No significant erosion.

Leaf Measurements (Vigor)

Species		
1		
2		
3	GRASSES	
4		
5		
6		
7		
8		
9	NO	
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	4	8	12	12	X¼= 3
Inv.	20	68	88	88	X-1= 88
Tot.	24	76	100	100	= 85
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 13
Vigor 0
Total 8
Cool Season . . . . . ____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 13
Soil Disturbance Factor 25
Total 38
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 24
Hits, all Rock 14
Litter 8
Bare Soil . . . 54
Total 100
Hits, Dec. + Inc 4
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetatio and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Gusa								Cora
R	Gusa	—	—	L	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
								Cora	
R	—	—	—	—	L	—	—	—	R
21	22	23	24	25	26	27	28	29	30
			Gusa	Gusa		Gusa			
—	R	—	—	Gusa	—	Gusa	L	—	L
31	32	33	34	35	36	37	38	39	40
Gusa				Cora	Cora				
—	—	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
	Cora			Cora		Cora			
—	—	—	R	L	R	—	R	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present

Opac
Opbq
Agut
Come

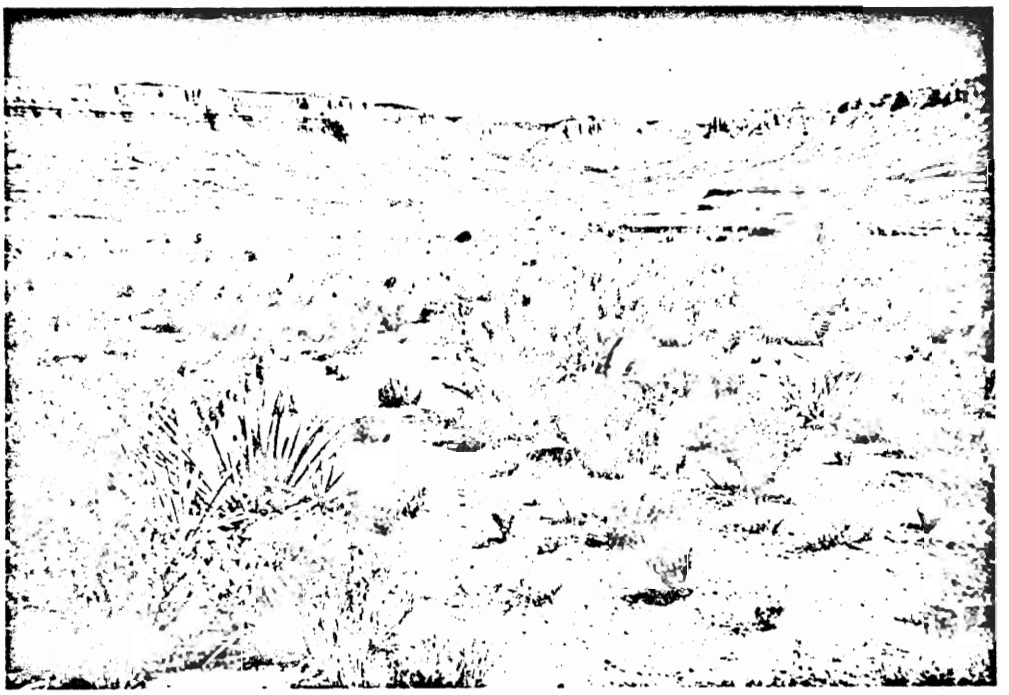
RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.	Epvi			1-2	
	Cora	11	𝍸 𝍸	22-56	1-10%
Inv.	Gusa	11	𝍸 1	20-40	
	Yuba			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				12-24	
Hits Dec. & Inc.					
Tot. Rock		7		7-14	
Tot. Litter		4		4-8	
Bare Ground		27		27-54	
Tot. Cool Season					

Hits
CorA
I=2
In=10

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #21
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-8-84 Transect No. 22
Aerial Photo No. 12-9 Pace Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 1 FC Slope 4%
Key Area _____ Soil MU 182 Aspect SE

Location Map:

BEARING N30°E
SOIL PLOT 12-9-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Some pedestalling of Bree & Scbr

Leaf Measurements (Vigor)

Species	Scbr	Sihy
1	1	6.5
2	.5	7
3	1	2.5
4	1	4
5	.5	3.5
6	.5	8
7	.5	7
8	1	4
9	.5	4
10	1	5
Tot	7.5	51.5
Ave	.75	5.2

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	10	12	12	X2= 24
Inc.	0	0	0	0	X½= 0
Inv.	12	76	88	88	X-1= 88
Tot.	14	86	100	100	-64
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 3
Composition 6
Vigor 4
Total 13
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 20
Total 25
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 14
Hits, all Rock 6
Litter 0
Bare Soil . . . 80
Total 100
Hits, Dec. + Inc 2
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Gusa							Gusa		
Gusa	—	—	—	—	—	—	Gusa	—	—
11	12	13	14	15	16	17	18	19	20
					Gusa				
—	—	—	—	—	L	—	—	Boer	—
21	22	23	24	25	23	27	28	29	30
—	—	Sobr	—	—	—	—	R	—	—
31	32	33	34	35	33	37	38	39	40
	Gusa								
L	Gusa	—	—	R	R	—	—	—	—
41	42	43	44	45	46	47	48	49	50
		Gusa							
—	—	Gusa	—	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	78	79	80
81	82	83	84	85	83	87	88	89	90
91	92	93	94	95	93	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
...s.							

Present
ERIO
EPHE
ECHI
OPUN
YUCC

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	•	•	2-4	
	Sihy		•	2-4	
	Mupb		•	1-2	
	Orhy		•	1-2	
Inc.					
Inv.	Gusa	:I	⊠ ⊓	22-44	
	Leer		2	7-14	
	Sobr	•	⊠	11-22	
	SPHE		•	3-6	
	Lypa		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		7		7-14	
Hits Dec. & Inc.					
Tot. Rock		3		3-6	
Tot. Litter					
Bare Ground		40		40-80	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #22
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-8-84 Transect No. 23
Aerial Photo No. 12-9 Pace Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 16 NC Slope 17%
Key Area _____ Soil MU 184 Aspect N10E

Location Map:

BEARING S 80W
SOIL PLOT 12-9-5

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: No Forage

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	NO GRASSES	
5		
6		
7		
8		
9	NO	
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	1	9	10	10	X¼=2.5
Inv.	17	73	90	90	X-1=_90
Tot.	18	82	100	100	= 87.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 1
Composition 2
Vigor 0
Total 3
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 14
Soil Disturbance Factor 22
Total 36
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 18
Hits, all Rock 24
Litter 8
Bare Soil . . . 50
Total 100
Hits, Dec. + Inc 1
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	R	—	R	R	—	—
11	12	13	14	15	16	17	18	19	20
			Cora	Gusa					Cora
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
			Gusa			Gusa	Cora		Gusa
—	—	R	L	L	R	Gusa	—	R	L
31	32	33	34	35	36	37	38	39	40
Cora		Gusa							
L	—	Gusa	R	L	R	—	—	R	—
41	42	43	44	45	46	47	48	49	50
—	—	—	L	L	R	R	—	—	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Come
Quto
Orhy
Asap
Covi
Aqut
EPHE

BROWSE CONDITION

Specim	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												

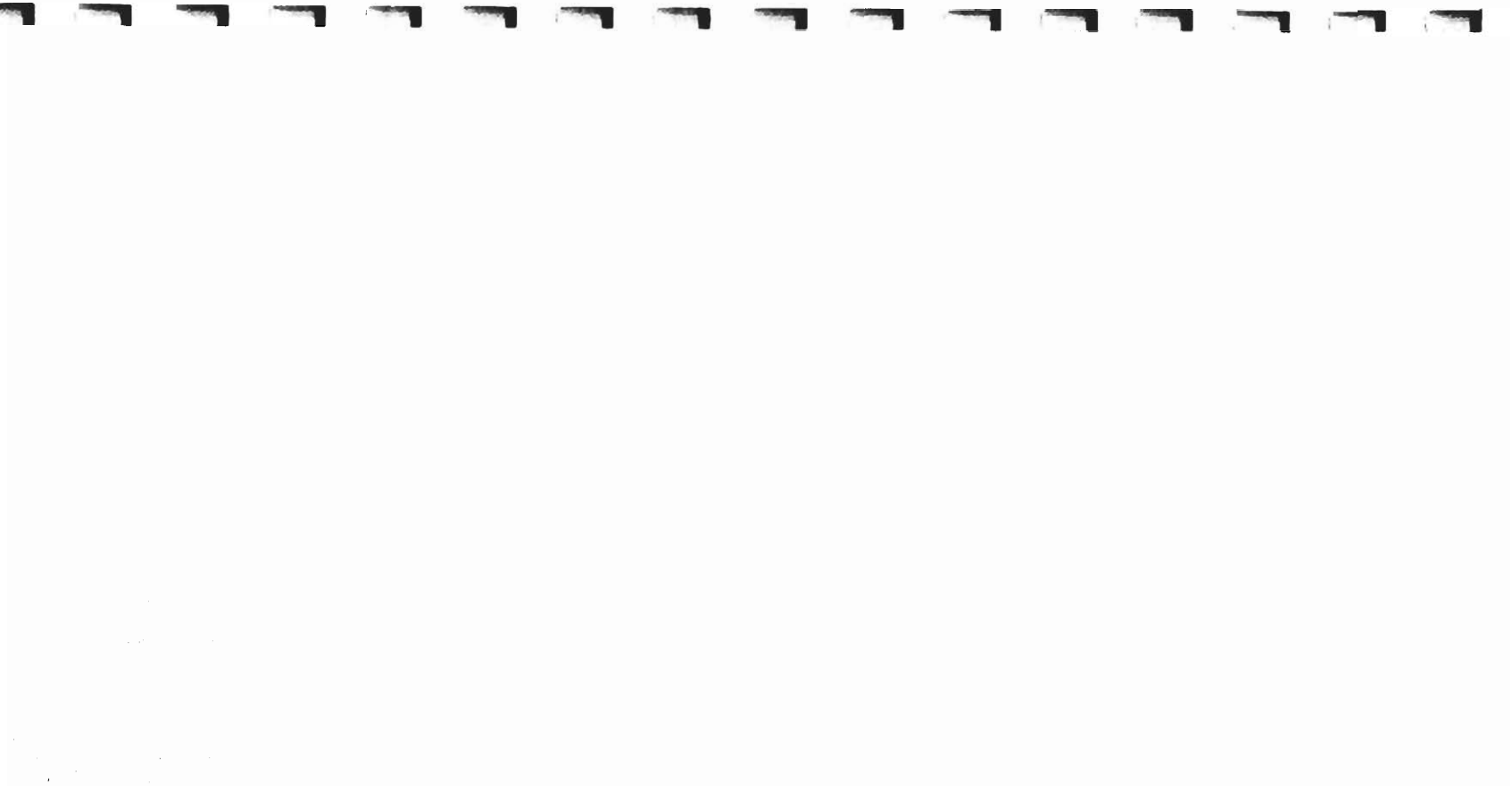
RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.	Cora	::	IIII : I	29-58	I-10%
Inv.	Gusa	:1	II :	18-36	
	Opac		:	1-2	
	Yuba		:	2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		9		9-18	
Hits Dec. & Inc.					
Tot. Rock		12		12-24	
Tot. Litter		4		4-8	
Bare Ground		25		25-50	
Tot. Cool Season					

Hits
Coeq
I=1
IN=7



Pace Transect #23
Sanup Plateau



PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment: SAUUP PLATEAU Date: 5-8-84 Transect No.: 24
Aerial Photo No.: 12-10 Pace Interval: 3 By: SHARROW BREWER
Game Mgmt.: _____ Vegetative Type: 9 NC Slope: 38%
Key Area: _____ Soil: M.U. 191 Aspect: NE

Location Map:

BEARING 542 G
SOIL PLOT 12-10-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Geologically active slope

Leaf Measurements (Vigor)

Species	ELSA	Polo
1	15	3.5
2	11.5	3.5
3	11	4
4	10	5
5	10	5.5
6	9	3.5
7	12.5	3
8	11	3.5
9	11	5
10	16	6
Tot	117	42.5
Ave	11.7	4.3

CROWN DENSITY (ASPEN-AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	52	56	56	X2=112
Inc.	2	4	6	6	X¼=1.5
Inv.	10	28	38	38	X-1=38
Tot.	16	84	100	100	+75.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4-81

VEGETATION

Forage Cover Index: 8
Composition: 32
Vigor: 8
Total: 48
Cool Season: _____
Condition Class: F
Current Trend: →
Trend Indicators: _____

SOIL STABILITY

Bare Soil Index: 20
Soil Disturbance Factor: 15
Total: 35
Condition Class: P
Current Trend: →

Summary of Hits

Hits, all Plants: 16
Hits, all Rock: 50
Litter: 2
Bare Soil: 32
Total: 100
Hits, Dec. + Inc: 6
Cool Season: _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	6	5	7	8	9	10
									Gusa
—	R	R	R	—	R	R	R	—	Gusa
11	12	13	14	16	16	17	18	19	20
—	R	R	R	—	R	—	R	—	R
21	22	23	24	25	23	27	28	29	30
—	—	—	—	R	—	R	—	L	R
31	32	33	34	35	36	37	38	39	40
					SYMP	Quun	Rutr	Quun	
R	R	R	R	R	R	R	Rutr	—	R
41	42	43	44	45	46	47	48	49	50
			ERIO		Pied	SYMP			
R	—	R	—	—	L	L	—	R	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	83	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Corq
YUCC
OPUN

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Polo		7	16-32	
	Stco			2-4	
	Sihy			2-4	
	Stco			6-12	
	SYMP			2-4	
Inc.	Epvi			1-2	
	Rutr			2-4	
Inv.	ERIO			2-4	
	Gusa		1	6-12	
	Phau		1	5-10	
	Pimo			2-4	
	Asar			1-2	
	Quun/Qutu			2-4	
	Erco			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		8		8-16	
Hits Dec. & Inc.					
Tot. Rock		25		25-50	
Tot. Litter		1		1-2	
Bare Ground		16		16-32	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Od.	1	2	3	4	5	6		
A												
Tot.												
b												
Tot.												
C												
Tot												



Pace Transect #24
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-9-84 Transect No. 25
Aerial Photo No. 13-10 Place Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 1 NC Slope 4%
Key Area _____ Soil M.U. 182 Aspect N58E

Location Map:

BEARING N50W
SOIL PLOT 13-10-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Utilization high
Production 35 to 50 lbs/acre (Estimated)

Leaf Measurements (Vigor)

Species	Beer	Oak
1	1.5	3.5
2	1.0	5.5
3	2.0	4.5
4	1.0	6.0
5	1.0	4.0
6	0.5	4.0
7	1.5	5.0
8	1.0	5.0
9	1.0	4.5
10	1.0	6.0
Tot	11.5	48.0
Ave	1.1	4.8

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	32	32	32	X2= 68
Inc.	2	0	2	2	X¼= 1/2
Inv.	16	48	64	64	X·1= 64
Tot.	20	80	100	100	+4.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 19
Vigor 1
Total 25
Cool Season . . . . .
Condition Class . . . P
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 6
Soil Disturbance Factor 18
Total 24
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 20
Hits, all Rock 0
Litter 4
Bare Soil . . . 76
Total 100
Hits, Dec. + Inc 4
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Gusa						
—	—	—	L	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
					Gusa				Gusa
Boer	L	—	—	—	Gusa	L	—	—	—
21	22	23	24	25	26	27	28	29	30
					Gusa	Gusa			
—	—	—	—	—	L	L	—	—	—
31	32	33	34	35	36	37	38	39	40
Cora									
Cora	—	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
	Gusa						Epne		Gusa
—	Gusa	—	—	—	—	—	—	—	Gusa
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
LYCI
Atcg
OPUN
Yucc

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		⊠	14-28	
	Orhy			2-4	
	Siby			1-2	
Inc.	Epne			1-2	
Inv.	Gusa	3	⊠⊠	28-56	
	Lyau			1-2	
	Leer			1-2	
	Cora			2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		10		10-20	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter		2		2-4	
Bare Ground		38		38-76	
Tot. Cool Season					

BROWSE CONDITION

Specim	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
S												
Tot.												
C												
Tot.												



Pace Transect #25
Sanup Plateau

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 5-9-84 Transect No. 26

Aerial Photo No. 12-9 Place Interval 5 By SHARROW/BREWER

Game Mgmt. _____ Vegetative Type 9 NC Slope ~35%

Key Area _____ Soil NM 191 Aspect N 10 W

Location Map:

BEARING N 60E
SOIL PLOT 12-9-6

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Active geologic erosion. Production est. 35 lbs/acre (estimated)

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	TO L	
5	NOTHING	
6	MEASURE	
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	0	4	4	X2=8
Inc.	2	12	14	14	X½=3.5
Inv.	20	62	82	82	X1=82
Tot.	26	74	100	100	=70.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 8
Composition 5
Vigor 6
Total 19
Cool Season . . . . . ____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 18
Soil Disturbance Factor 10
Total 28
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 26
Hits, all Rock 32
Litter 4
Bare Soil . . . 38
Total 100
Hits, Dec. + Inc 6
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	6	8	7	8	9	10
Cora			Come			Pimo			
—	R	R	L	—	R	L	—	R	—
11	12	13	14	15	16	17	18	19	20
	Come						Quun	Pimo	
—	—	R	R	R	—	R	Quun	R	R
21	22	23	24	25	23	27	28	29	30
									Cora
—	R	—	R	R	R	—	—	R	—
31	32	33	34	35	33	37	38	39	40
						Pimo	Pimo		
—	R	—	—	—	—	L	L	—	R
41	42	43	44	45	46	47	48	49	50
		Quun	Quun	Quun	Pimo				
—	—	—	—	—	L	L	L	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	78	77	78	72	80
81	82	83	84	85	83	87	88	89	90
91	92	93	94	95	93	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Elsq
Covi
OPUN
Stsp
Peut

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Come.	••		2-4	
Inc.	Cora	:	☒	12-24	I-10%
	Rhtr		:	2-4	
Inv.	Quun/Qutu	::	:.	7-14	
	Pimo	:1		5-10	
	Gusa		☒ 7	17-34	
	OPUN		:	1-2	
	Ecir		:	1-2	
	Agut		:.	3-6	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		13		13-26	
Hits Dec. & Inc.					
Tot. Rock		16		16-32	
Tot. Litter		2		2-4	
Bare Ground		19		19-38	
Tot. Cool Season					

Hits
Corq
I=2
In=2

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #26
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWTOOTH PLATEAU Date 5-9-84 Transect No. 27
Aerial Photo No. 12-9 Place Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 9 NC Slope 17%
Key Area _____ Soil MU 191 Aspect _____

Location Map:

BEARING 576E
SOIL PLOT 12-10-3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production at or below 25 lbs/Acre. Erosion not accelerated but slope naturally unstable.

Leaf Measurements (Vigor)

Species		
1	NOTHING TO MEASURE	
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 4
Inc.	2	10	12	12	X¼= 3
Inv.	20	66	86	86	X1= 86
Tot.	22	78	100	100	= 79
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 3
Composition 4
Vigor 5
Total 12
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 15
Soil Disturbance Factor 16
Total 31
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 22
Hits, all Rock 28
Litter 2
Bare Soil . . . 48
Total 100
Hits, Dec. + Inc 2
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Thmo									
—	—	R	—	R	—	R	—	—	—
11	12	13	14	15	16	17	18	19	20
Cora	Cora								
Cora	—	R	—	—	R	R	—	—	—
21	22	23	24	25	26	27	28	29	30
		Cora			Pimo				
—	R	—	—	R	—	L	—	—	R
31	32	33	34	35	36	37	38	39	40
Agut			Agut						
Agut	—	R	Agut	—	—	—	—	R	R
41	42	43	44	45	46	47	48	49	50
	Pimo				Cora	Ausa			Pimo
—	L	R	—	—	—	Ausa	Pz	—	L
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Asar
Stsp
Trpu

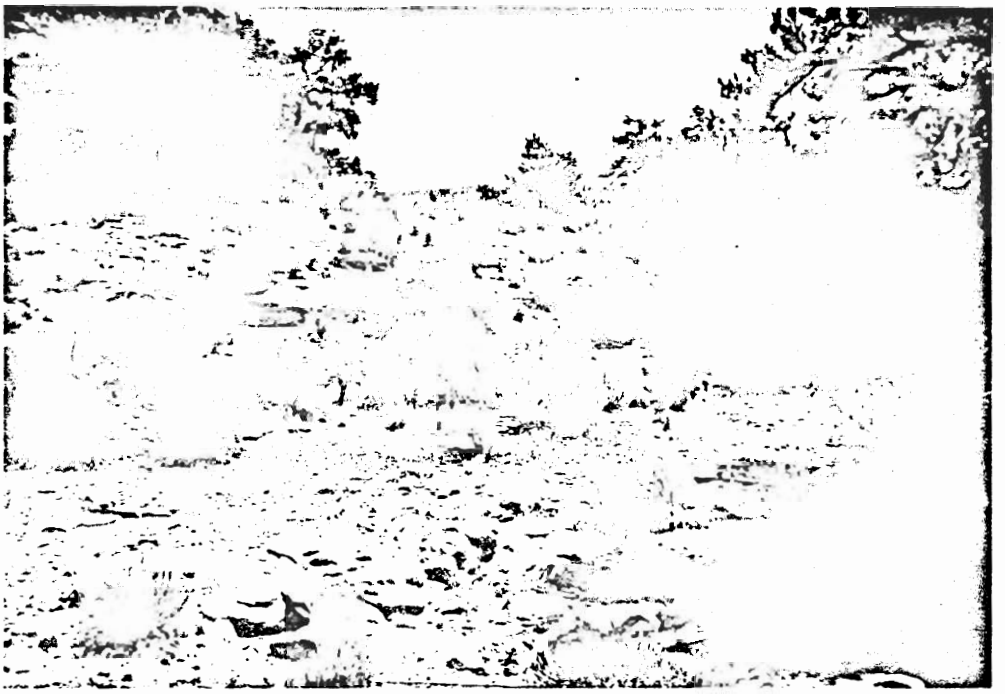
RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		.	1-2	
Inc.	Cora	::	⊠⊠	24-48	I-10%
	Star		.	1-2	
Inv.	Thmo	.	.	2-4	
	Aris-l		::	4-8	
	Ausa	:	::	7-14	
	Agut	:	::	6-12	
	Pimo	::	.	3-6	
	Outu		.	1-2	
	Ectr		.	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		11		11-22	
Hits Dec. & Inc.		14		14-28	
Tot. Rock		1		1-2	
Tot. Litter		24		24-48	
Bare Ground					
Tot. Cool Season					

Hits
Coeq
I=2
In=6

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot												



Pace Transect #27
Sanup Plateau

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWTOOTH PLATEAU Date 5-9-84 Transect No. 28
Aerial Photo No. 12-10 Place Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 1 FC Slope 4%
Key Area _____ Soil MU 182 Aspect N80E

Location Map:

BEARING S70W
SOIL PLOT 12-10-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production at 25 lbs/Acre, solely by Schr. Utilization high on this site.

Leaf Measurements (Vigor)

Species		
1	NOTHING TO MEASURE	
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	0	0	0	0	X½= 0
Inv.	24	76	100	100	X-1=100
Tot.	24	76	100	100	=100
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 0
Composition 0
Vigor 0
Total 0
Cool Season . . . . . ____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 6
Soil Disturbance Factor 20
Total 26
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 24
Hits, all Rock 0
Litter 0
Bare Soil . . . 76
Total 100
Hits, Dec. + Inc 0
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vege tation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	—	Scbr	—	—	Scbr	Scbr	—
21	22	23	24	25	26	27	28	29	30
		Gusa			Gusa				
—	Scbr	Gusa	—	—	Gusa	—	—	—	—
31	32	33	34	35	36	37	38	39	40
						Cora			
—	—	—	—	—	—	L	—	—	—
41	42	43	44	45	46	47	48	49	50
Gusa			Gusa			Gusa		Gusa	Gusa
L	—	—	Gusa	—	—	Gusa	—	Gusa	Gusa
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIBARIAN : ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

Present
Epne
OPUN
Come

RANGE COMPOSITION

Class	Species	Hits	Telly	Total	Allowable
Dec.					
Inc.					
Inv.	Guti			28-56	
	Scbr			18-36	
	Lyan			1-2	
	Bamu			1-2	
	Leer			1-2	
	Cora			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		12		12-24	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter					
Bare Ground		38		38-76	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot												



Pace Transect #28
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAN JUAN PLATEAU Date 5-9-84 Transect No. 29
Aerial Photo No. 13-10 Plane Interval 3 By SHAIROW - BREWER
Game Mgmt. _____ Vegetative Type 9 NC Slope 4%
Key Area _____ Soil _____ Aspect S 84 W

Location Map:

BEARING S 80 W
SOIL PLOT 13-10-9

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: ¼ to ½ Acre inclusion of grass area within essentially barren M.U.

Leaf Measurements (Vigor)

Species	Stsp	Hija
1	8	5
2	13	3.5
3	12	3
4	12	4.5
5	13.5	5.5
6	85	3
7	11	4
8	13	4
9	11	3
10	10	3
Tot	112.0	38.5
Ave	11.2	3.8

CROWN DENSITY (ASPEN-AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	20	24	24	X2=48
Inc.	6	16	22	22	X¼=5.5
Inv.	10	44	54	54	X1=54
Tot.	20	80	100	100	=0.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 13
Composition 18
Vigor 7
Total 38
Cool Season . . . . . ____
Condition Class . . . P
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 48
Soil Disturbance Factor 12
Total 60
Condition Class . . . . . F
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 20
Hits, all Rock 76
Litter 2
Bare Soil . . . 2
Total 100
Hits, Dec. + Inc 10
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
						Gusa	Gusa		
R	R	R	R	R	R	Gusa	Gusa	R	R
11	12	13	14	15	16	17	18	19	20
		Gusa			Atca				
R	—	R	R	—	—	R	R	R	R
21	22	23	24	25	26	27	28	29	30
Atca				Cora	Cora				
L	R	R	R	R	Cora	R	R	R	R
31	32	33	34	35	36	37	38	39	40
				Cora					
R	R	R	R	Cora	R	R	R	R	R
41	42	43	44	45	46	47	48	49	50
		Cora						Cora	
R	R	—	R	R	R	R	R	Cora	L
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

Present
Boco
Polo
Stco

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sihy		⁚	4-8	
	Boer		⁚	4-8	
	Atca	:		2-4	
	Orhy		:	2-4	
Inc.	Hija		⁚	4-8	
	Stsp		:	2-4	
	Cora	:1	⁚	8-16	I-10%
Inv.	Gusa	⁚	⊠ ⊠	23-46	
	Leer		-	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		10		10-20	
Hits Dec. & Inc.					
Tot. Rock		38		38-76	
Tot. Litter		1		1-2	
Bare Ground		1		1-2	
Tot. Cool Season					

Hits
Coer
I=6
In=4

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Od.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #29
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-10-84 Transect No. 30
Aerial Photo No. 13-11 Pace Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 9 NC Slope 38%
Key Area _____ Soil M.U. 191 Aspect S 76 E

Location Map:

BEARING 512 W
SOIL PLOT 13-11-3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production less than 25 lbs/Acre of Stco and Elsa. Plants vigorous but to widespread to produce much.

Leaf Measurements (Vigor)

Species	Stco	Elsa
1	9.5	14
2	13	11.5
3	10	20
4	13.5	17.5
5	11	14
6	8.5	10.5
7	11	17.5
8	8	19
9	9.5	15
10	8	14
Tot	102.0	153.0
Ave	10.2	15.3

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	24	26	26	X2=52
Inc.	0	8	8	8	X¼= 2
Inv.	4	62	66	66	X-1=66
Tot.	6	94	100	100	-12
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 3
Composition 16
Vigor 9
Total 28
Cool Season . . . . . _____
Condition Class . . . P
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 14
Soil Disturbance Factor 8
Total 22
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 6
Hits, all Rock 38
Litter 6
Bare Soil . . . 50
Total 100
Hits, Dec. + Inc 2
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
R	R	R	—	R	—	—	R	L	R
11	12	13	14	15	16	17	18	19	20
			Cegr						
—	R	—	L	—	—	R	R	—	—
21	22	23	24	25	26	27	28	29	30
								Yuba	
L	R	—	—	—	R	—	R	—	—
31	32	33	34	35	36	37	38	39	40
L	R	—	—	R	R	—	—	R	R
41	42	43	44	45	46	47	48	49	50
				Chna					
R	—	R	—	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Comc

BROWSE CONDITION

Specim	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot:												

RANGE COMPOSITION

Class	Species	Hits	Teliv	Total	Allowable
Dec.	Stco		N	9-18	
	Boer			1-2	
	Stde			2-4	
	Cegr			1-2	
Inc.	Cora			3-6	
	Rhtr			1-2	
Inv.	Gusa		N : 1	15-30	
	Perst			2-4	
	Thmo			2-4	
	ERIO			1-2	
	Agut			1-2	
	Chna			4-8	
	Yuba			2-4	
	Sine			1-2	
Rock	Aray			2-4	
	Unk Comp			3-6	
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				3-6	
Hits Dec. & Inc.					
Tot. Rock		19		19-38	
Tot. Litter		3		3-6	
Bare Ground		25		25-50	
Tot. Cool Season					



Pace Transect #30
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-10-84 Transect No. 31
Aerial Photo No. 13-11 Pace Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 9 NC Slope 35
Key Area _____ Soil M.U. 191 Aspect N10W

Location Map:

BEARING SOIC PLOT 13-11-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production less than 25 lbs/ACRE.

Leaf Measurements (Vigor)

Species		
1		
2		
3	GRASS	
4		
5		
6		
7		
8		
9	1/10	
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 4
Inc.	4	6	10	10	X½= 2½
Inv.	34	54	88	88	X·1= 88
Tot.	38	62	100	100	= 81.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 3
Vigor 0
Total 8
Cool Season . . . . . ____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 30
Soil Disturbance Factor 13
Total 43
Condition Class . . . . . F
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 38
Hits, all Rock 46
Litter . . . . . —
Bare Soil . . . 16
Total 100
Hits, Dec. + Inc 4
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	6	6	7	8	9	10
			Cora		Cora				Cora
R	R	R	Cora	R	—	R	R	R	—
11	12	13	14	15	16	17	18	19	20
Cora		Cora				Cora	Cora		Cora
—	—	—	R	R	R	R	R	—	R
21	22	23	24	25	26	27	28	29	30
		Cora		Cora		Cora	Cora		
R	R	—	R	L	R	L	L	—	R
31	32	33	34	35	36	37	38	39	40
		Cora	Cora				Cora		Cora
R	R	R	—	R	—	—	L	—	L
41	42	43	44	45	46	47	48	49	50
Cora	Cora					Cora			
Cora	R	—	R	—	R	—	R	R	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Present
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Orhy
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Pimo
EPHE
Sihy
Penst

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

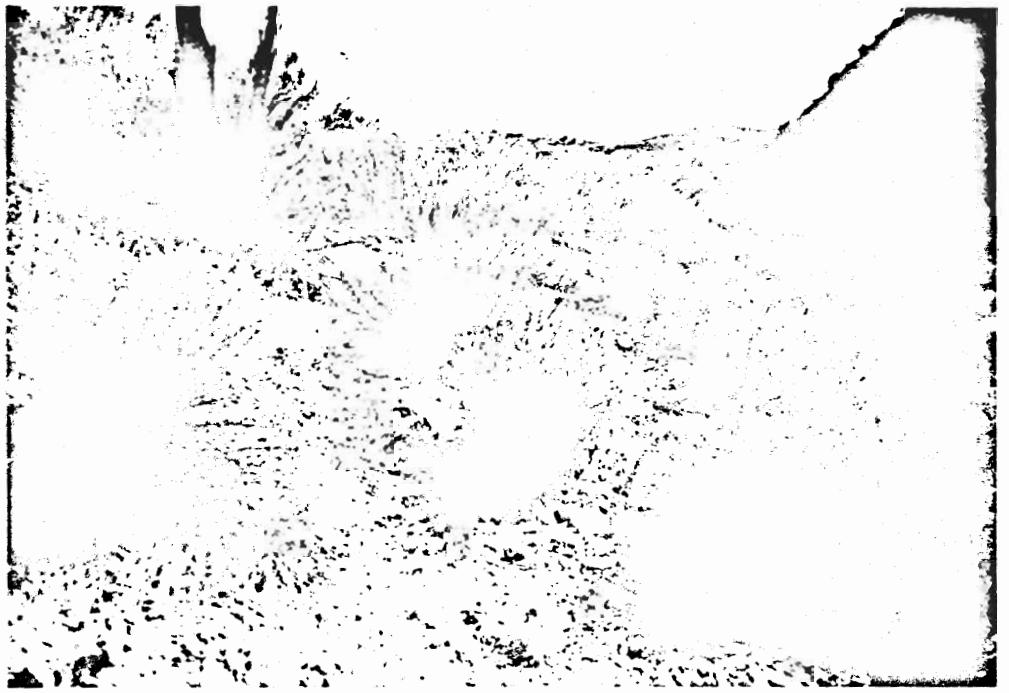
RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Fapa			1-2	
Inc.	Cora	⊠⊠	⊠⊠⊠	98-96	I-10%
Inv.	Opba			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		19		19-38	
Hits Dec. & Inc.		23		23-46	
Tot. Rock					
Tot. Litter		8		8-16	
Bare Ground					
Tot. Cool Season					

Hits
CoeA
I=4
IN=34

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #31
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAZUP PLATEAU Date 5-11-84 Transect No. 32
Aerial Photo No. 14-2 Pace Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 9 FC Slope 5%
Key Area _____ Soil MU 39 Aspect SIDE

Location Map:

BEARING N15E
SOIL PLOT 14-12-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.000
8								
9								
10								
tot								
avg								

Comments: Production less than 25 lbs/acre, could be higher with improved Boer vigor. Polo, sihy + Onhy only occur in inaccessible locations.

Leaf Measurements (Vigor)

Species	Polo	Boer
1	1.5	1.0
2	2.0	1.5
3	4	1.5
4	5	1.0
5	3	1.0
6	10	2.5
7	7	1.0
8	6	2.0
9	4	1.5
10	7	2.0
Tot	49.5	14.0
Ave	5	1.4

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	58	60	60	X2= 120
Inc.	0	0	0	0	X½= 0
Inv.	22	18	40	40	X-1= 40
Tot.	24	76	100	100	= 80
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 3
Composition 32
Vigor 2
Total 37
Cool Season . . . . . ____
Condition Class . . . P
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 20
Soil Disturbance Factor 15
Total 35
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 24
Hits, all Rock 40
Litter 4
Bare Soil . . . 32
Total 100
Hits, Dec. + Inc 2
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
				Pimo	Yuba	Cora			
R	R	R	R	L	L	L	R	R	R
11	12	13	14	15	16	17	18	19	20
				Juos					
—	—	R	R	R	—	—	—	—	R
21	22	23	24	25	26	27	28	29	30
	Thmo				Pimo				
—	R	—	R	R	Pimo	—	L	Boer	R
31	32	33	34	35	36	37	38	39	40
Pimo	Thmo			Yuba					
L	L	L	R	Yuba	—	—	—	—	R
41	42	43	44	45	46	47	48	49	50
			Cora						Yuba
R	R	R	R	R	R	—	—	—	Yuba
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

present
Enfa
COEY
Qulu
Ecfe

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		☒ □	19-38	
	Phlo		:	4-8	
	Bacu		:	2-4	
	Sihy		·	1-2	
	Mupo		·	1-2	
	Drhy		·	1-2	
	Come		·	1-2	
Inc.	Fapa		·	1-2	
Inv.	Gusa		:1	5-10	
	Pimo	:		3-6	
	Yuba	:		3-6	
	Cora	·	·	3-6	
	Juos	·		1-2	
	Thmo	:	:	4-8	
	Opun		·	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		12		12-24	
Hits Dec. & Inc.					
Tot. Rock		20		20-40	
Tot. Litter		2		2-4	
Bare Ground		16		16-32	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot:												



Pace Transect #32
Sanup Plateau

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 5-10-84 Transect No. 33
Aerial Photo No. 13-9 Pace Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 1 FC Slope 4%
Key Area _____ Soil M.U. 182 Aspect S 8 W

Location Map:

BEARING S34E
SOIL PLOT 13-9-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production 25-50 lbs pee Acee. Large gully through middle of unit. Estimated use 40 to 50% on Acee.

Leaf Measurements (Vigor)

Species	Boer	Stee
1	1	10.5
2	2	10
3	1.5	11
4	3.0	8
5	3.5	5.5
6	2.5	5
7	2	8
8	3	6
9	3	7.5
10	4	6
Tot	25.5	79.5
Ave	2.6	8

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	18	20	20	X2=40
Inc.	2	22	24	24	X¼=6
Inv.	0	56	56	56	X1=56
Tot.	4	96	100	100	-10
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 16
Vigor 2
Total 23
Cool Season . . . . . ____
Condition Class . . . P
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 3
Soil Disturbance Factor 25
Total 28
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 4
Hits, all Rock 0
Litter 6
Bare Soil . . . 90
Total 100
Hits, Dec. + Inc 4
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
—	—	—	—	—	—	—	L	—	—
31	32	33	34	35	36	37	38	39	40
—	—	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
						EPHE			
—	—	—	—	L	L	L	Boer	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Present
Atcg
Lypa
Pipe
EPOD

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling					
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
...s.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Orhy		:	2-4	
	Boer		:|	6-12	
	Stco		:	2-4	
Inc.	Spco		::	4-8	
	Spcr		:|	6-12	
	EPHE		:	2-4	
Inv.	MENT-1		⊠⊠	21-42	
	Enfa		:	1-2	
	Fusa		:|	6-12	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				2-4	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter		3		3-6	
Bare Ground		45		45-90	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #33
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 5-10-84 Transect No. 34
Aerial Photo No. 13-10 Place Interval 3 By SHARROW & BREWER
Game Mgmt. _____ Vegetative Type 9 NC Slope 4%
Key Area _____ Soil Mud 190 Aspect S58W

Location Map:

BEARING S60W
SOIL PLOT 13-10-5

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: High geologic erosion rate. Rills, small gullies, and pedistalling are found. Production 25 to 50 lbs/acre. Parent material is Hermit shale.

Leaf Measurements (Vigor)

Species	E/sa	Stsp
1	16	12
2	23	14.5
3	13	14
4	19.5	15
5	27	11
6	18	9
7	18	12
8	14	11.5
9	20.5	12
10	19	14.5
Tot	188	125.5
Ave	19	13

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 4
Inc.	2	10	12	12	X¼= 3
Inv.	10	76	86	86	X-1= 86
Tot.	12	88	100	100	—79
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 3
Composition 4
Vigor 8
Total 15
Cool Season . . . . . ____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 13
Soil Disturbance Factor 9
Total 22
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 12
Hits, all Rock 34
Litter 0
Bare Soil . . . 54
Total 100
Hits, Dec. + Inc 2
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetatic and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
						Cora			
R	—	—	—	—	—	—	R	R	R
11	12	13	14	15	16	17	18	19	20
			Cora	Cora				Cora	
R	—	R	—	Cora	—	—	—	—	—
21	22	23	24	25	23	27	28	29	30
R	R	—	—	—	R	—	—	—	—
31	32	33	34	35	33	37	38	39	40
Pimo						Cora			
—	R	R	—	—	—	Cora	R	—	—
41	42	43	44	45	46	47	48	49	00
R	R	R	R	R	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	78	79	80
81	82	83	84	85	83	87	88	89	90
91	92	93	94	95	93	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Eeco
ChnA
Stsp
Elsq
Juos
Rhte

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Come-1			1-2	
Inc.	Cora	1	⊠⊠	27-54	I-10%
	Stsp			1-2	
Inv.	Gusa		⊠ 7	16-32	
	Thmo			2-4	
	Pimo			1-2	
	Arar-1			2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		6		6-12	
Hits Dec. & Inc.					
Tot. Rock		17		17-34	
Tot. Litter					
Sare Ground		27		27-54	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Od.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #34
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAND PLATEAU Date 5-10-84 Transect No. 35

Aerial Photo No. 13-10 Place Interval 3 By SHARROW BREWER

Game Mgmt. _____ Vegetative Type 1 FC Slope 3%

Key Area _____ Soil M.U. 182 Aspect N 50 W

Location Map:

BEARING S75E
SOIL PIT 13-10-6

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¾"							X.001
2	¾-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production 25 lbs per Acre made up mostly of Hija. Mupo found only under protection of spiny shrubs. Hija plants have poor vigor.

Leaf Measurements (Vigor)

Species	Hija	
1	2	
2	4	
3	2	
4	3	
5	2.5	
6	2.5	
7	2	
8	2	
9	2.5	
10	3.5	
Tot	26.0	
Ave	2.6	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	4	6	6	X2= 12
Inc.	0	15	15	15	X¼= 4
Inv.	26	53	79	79	X-1= 79
Tot.	28	72	100	100	-63
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 3
Composition 7
Vigor 2
Total 12
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 8
Soil Disturbance Factor 14
Total 22
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 28
Hits, all Rock 0
Litter 2
Bare Soil . . . 70
Total 100
Hits, Dec. + Inc 2
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
							Yuba		
—	—	Orhy	—	—	—	—	Yuba	—	—
11	12	13	14	15	16	17	18	19	20
Gusa			Gusa					Cora	
Gusa	—	—	Gusa	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
		Gusa					Gusa		
—	—	—	L	—	—	—	L	—	—
31	32	33	34	35	36	37	38	39	40
		Gusa	Yuba	Cora			Gusa		
—	—	Gusa	Yuba	—	—	—	Gusa	—	—
41	42	43	44	45	46	47	48	49	50
Gusa	Gusa					Gusa			
L	L	—	—	—	—	L	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

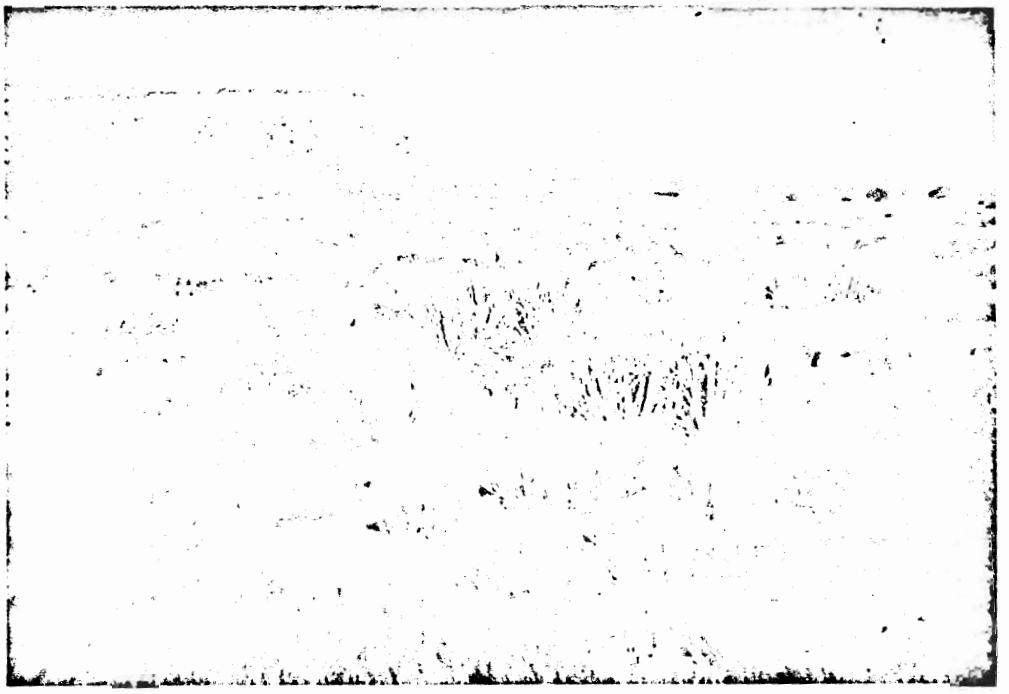
Present
Lyau
Mupo
Bace
Opac
Epvi
Atcq

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		·	1-2	
	Orhy	·	·	2-4	
Inc.	Hila		☒	10-20	I-15%
Inv.	Gusa	☒	☒ ☒	28-56	
	Leer		/	5-10	
	Yuba	:		2-4	
	Cora	:			
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		14		14-28	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter		1		1-2	
Bare Ground		35		35-70	
Tot. Cool Season					

BROWSE CONDITION

Specim	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot:												



Pace Transect #35
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 5-10-84 Transect No. 36

Aerial Photo No. 13-10 Place Interval 3 By SHARRON BREWER

Game Mgmt. _____ Vegetative Type 16 NC Slope 24%

Key Area _____ Soil M4. 178 Aspect S44W

Location Map:

BEARING N50E
SOIL PLOT 13-10-3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: NC inclusion in mapping unit. Very little use in this M.U. No preferred grasses observed. Some wildlife sign.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	GRASSES	
5		
6		
7		
8		
9		
10	NO	
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	3	7	10	10	X½=2½
Inv.	23	67	90	90	X·1=90
Tot.	26	74	100	100	-87.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 4

Composition 2

Vigor 0

Total 6

Cool Season . . . . . _____

Condition Class . . . . VP

Current Trend . . . . →

Trend Indicators _____

SOIL STABILITY

Bare Soil Index 19

Soil Disturbance Factor 15

Total 34

Condition Class . . . . . P

Current Trend . . . . . →

Summary of Hits

Hits, all Plants 26

Hits, all Rock 40

Litter 0

Bare Soil . . . 34

Total 100

Hits, Dec. + Inc 3

Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetative and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Cora						
R	–	R	Cora	—	—	—	R	R	–
11	12	13	14	15	16	17	18	19	20
R	–	–	R	R	R	R	R	R	R
21	22	23	24	25	26	27	28	29	30
Cora			Cora	Cora		Cora			
R	R	R	R	R	R	Cora	R	—	—
31	32	33	34	35	36	37	38	39	40
	Cora		Cora			Cora		Cora	
—	Cora	—	Cora	R	—	Cora	—	—	—
41	42	43	44	45	46	47	48	49	50
Cora	Cora	Cora			Cora				
R	—	L	—	R	R	—	R	—	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Opac
Epvi
Agut
come

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.	Cora	:: ⊠	⊠⊠⊠ ::	47-94	I-10%
Inv.	Yuba		::	3-6	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		13		13-26	
Hits Dec. & Inc.					
Tot. Rock		20		20-40	
Tot. Litter					
Bare Ground		17		17-34	
Tot. Cool Season					

Hits
Coeq
I=3
In=23

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot												



Pace Transect #36
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWTOOTH PLATEAU Date 5-10-84 Transect No. 37
Aerial Photo No. 13-10 Pace Interval 3 By SHARRON BREWER
Game Mgmt. _____ Vegetative Type 16 NC Slope 8%
Key Area _____ Soil M.U. 178 Aspect S20W

Location Map:

BEARING NORTH
SOIL PLOT 13-10-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: NC inclusion in mapping unit few tracks in this area with mince use on Epvi and Yuba. The sihy tallied is the only grass observed on this slope.

Leaf Measurement: (Vigor)

Species		
1		
2		
3	SIHY GRASS	
4		
5		
6		
7		
8		
9		
10	NO GRASS	
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 4
Inc.	2	8	10	10	X¼=2½
Inv.	18	70	88	88	X-1= 88
Tot.	20	80	100	100	=81.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 3
Composition 3
Vigor 0
Total 6
Cool Season . . . . . _____
Condition Class . . . XP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 18
Soil Disturbance Factor 30
Total 48
Condition Class . . . . . F
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 20
Hits, all Rock 42
Litter 0
Bare Soil . . . 38
Total 100
Hits, Dec. + Inc 2
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
CorA					CorA	CorA			
L	—	—	R	—	—	CorA	—	—	R
11	12	13	14	15	16	17	18	19	20
						CorA			
—	—	R	—	R	R	CorA	—	—	R
21	22	23	24	25	23	27	28	29	30
Cora		CORA							CorA
R	—	R	R	—	R	R	R	R	CorA
31	32	33	34	35	35	37	38	39	40
				CorA		CorA			
R	R	—	R	—	R	L	—	R	R
41	42	43	44	45	45	47	48	49	50
	CORA								
R	CorA	—	R	R	—	—	—	R	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Present
Epvi
Comc
Yubq
Chvq
Opbq
Milkweed

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sibe		. 2	1-2	
Inc.					
	CorA	☒	☒☒☒	46-92	I-1090
Inv.					
	HyAc		: 4	2-4	
	AgSt		.2	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		10		10-20	
Hits Dec. & Inc.		21		21-42	
Tot. Rock					
Tot. Litter					
Bare Ground		19		19-38	
Tot. Cool Season					

Hits
CorA
I=2
Iv=18

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #37
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-11-84 Transect No. 38

Aerial Photo No. 13-11 Place Interval 3 By SHARROW BRIEWER

Game Mgmt. _____ Vegetative Type 9 FC Slope 4%

Key Area _____ Soil N.C.S.39 Aspect _____

Location Map:

BEARING S10W
SOIL PLOT 13-11-2

RIPARIAN alluvial bench
Soil disturbed by numerous trails.

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: All grasses estimated use between 80 and 90%, all grazed within ½" of ground. Area utilized heavily. Type also browsed.

Leaf Measurements (Vigor)

Species	Hija	Boer
1	2.5	.5
2	1	.5
3	2	.5
4	3	1
5	2	1
6	2	1.5
7	3.5	2
8	4	1
9	1.5	1.5
10	1	1
Tot	22.5	10.5
Ave	2.3	1.0

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	20	20	20	X2= 40
Inc.	0	15	15	15	X¼= 4
Inv.	16	49	65	65	X·1= 65
Tot.	16	84	100	100	-21
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 0
Composition 14
Vigor 2
Total 16
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 11
Soil Disturbance Factor 14
Total 25
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 16
Hits, all Rock 14
Litter 10
Bare Soil . . . 60
Total 100
Hits, Dec. + Inc 0
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
				CorA					
—	—	L	—	L	L	L	L	—	—
11	12	13	14	15	16	17	18	19	20
	CorA								
—	—	R	—	R	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
							Yuba		
—	—	—	—	—	—	—	Yuba	—	—
31	32	33	34	35	36	37	38	39	40
					CovA				
—	L	—	—	—	—	—	—	opac	R
41	42	43	44	45	46	47	48	49	50
	CovA			CorA			R	CorA	
R	L	—	—	CorA	—	R		CorA	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	83	87	83	89	90
91	92	93	94	95	96	97	98	99	100

Present
EnFA
OpAC
LyAM
Lypq
Eeco

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
ave.							

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Bem		☐	9-18	
	Alla		•	1-2	
Inc.	Hija		☐☐	8-16	I-1570
Inv.	Gusa		⁘	4-8	
	cora	⁘	☐	14-28	
	opph	•	⁘	6-12	
	Yuba	•		1-2	
	Trpa		⁘	2-14	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants	8			8-16	
Hits Dec. & Inc.					
Tot. Rock	7			7-14	
Tot. Litter	5			5-10	
Bare Ground	30			30-60	
Tot. Cool Season					



Pace Transect #38
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 5-11-84 Transect No. 39
Aerial Photo No. 13-11 Pace Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 9 FC Slope 5%
Key Area _____ Soil MH 39 Aspect S65W

Location Map:

BEARING S37W
SOIL PLOT 13-11-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Riparian bench

Comments: 50 to 75 lbs/acre by Boer, Mupo and Hija. Utilization estimated 70 to 90%. Gully erosion is geologic. Vigor difficult to determine because plants armored. Rocky surface has stabilized most erosion.

Leaf Measurements (Vigor)

Species	Boer	Hija
1	2	2.5
2	1	1.5
3	1.5	3.5
4	.5	2
5	1.5	3.5
6	2	3
7	1.5	2
8	2.5	3
9	.5	2.5
10	1	1.5
Tot	14.0	25.0
Ave	1.4	2.5

CROWN DENSITY (ASPEN-AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	6	10	10	X2= 24
Inc.	3	13	16	16	X¼= 4
Inv.	25	49	74	74	X-1= 74
Tot.	32	68	100	100	-50
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 9
Composition 9
Vigor 2
Total 20
Cool Season . . . . . ____
Condition Class . . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 17
Soil Disturbance Factor 28
Total 45
Condition Class . . . . . F
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 32
Hits, all Rock 24
Litter 4
Bare Soil . . . 40
Total 100
Hits, Dec. + Inc 7
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
					Yuba			Cora	
—	—	R	R	R	Yuba	—	—	Cora	L
11	12	13	14	15	16	17	18	19	20
	Gusa	Thoc			Yuba		Cora		
—	L	R	R	—	Yuba	Boer	—	R	R
21	22	23	24	25	26	27	28	29	30
				Yuba		Yuba	Gusa		
—	R	L	—	Yuba	—	L	Gusa	—	—
31	32	33	34	35	36	37	38	39	40
Gusa	Cham						Cora		
Gusa	L	R	Epse	—		—	—	R	—
41	42	43	44	45	46	47	48	49	50
ATCa					Yuba				
ATCa	—	R	R	—	R	—			R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	•	••	4-8	
	ATCa	•	•	1-2	
Inc.	HiJA		••	3-6	
	StSp		•	1-2	
	EpNe	•	••	4-8	
Inv.	Erea		••	4-8	
	Gusa	••	⊠•	11-22	
	SpHA	••	••	2-4	
	Yuba	••	••	7-14	
	Thme	•		1-2	
	ChNa	•	•	2-4	
	ERIO	•	•	1-2	
	Cora	••	••	9-18	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		16		16-32	
Hits Dec. & Inc.					
Tot. Rock		12		12-24	
Tot. Litter		3		3-4	
Bare Ground		20		20-40	
Tot. Cool Season					



Pace Transect #39
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

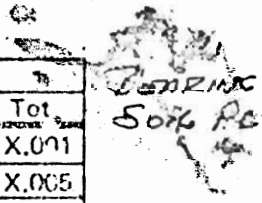
Range Allotment SAWTOOTH PLATEAU Date 5-12-84 Transect No. 40

Aerial Photo No. 12-11 Place Interval 3 By SHARROW BREWER

Game Mgmt. _____ Vegetative Type 16 PC Slope 10%

Key Area _____ Soil MCI-178 Aspect S74W

Location Map:



BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Soil depth 16"
Soil surface protected by erosion pavement.
No forage

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	NO GRASSES	
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	7	25	32	32	X¼= 8
Inv.	23	45	68	68	X·1= 68
Tot.	30	70	100	100	-60
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 9
Composition 7
Vigor 0
Total 16
Cool Season . . . . . ____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 27
Soil Disturbance Factor 16
Total 43
Condition Class . . . . . F
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 30
Hits, all Rock 50
Litter 0
Bare Soil . . . 20
Total 100
Hits, Dec. + Inc 7
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetatic and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Cora			Epne			
—	R	R	R	R	—	Epne	R	—	—
11	12	13	14	15	16	17	18	19	20
Cora						Cora	Cora		
Cora	—	R	R	R	R	R	Cora	R	R
21	22	23	24	25	26	27	28	29	30
			Cora		Cora	Cora	Cora		Cora
—	R	R	Cora	R	—	—	Cora	R	Cora
31	32	33	34	35	36	37	38	39	40
R	R	R	R	—	R	—	—	R	R
41	42	43	44	45	46	47	48	49	50
	Cora				Cora	Cora	Epne		Cora
R	Cora	R	R	R	—	Cora	Epne	—	Cora
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

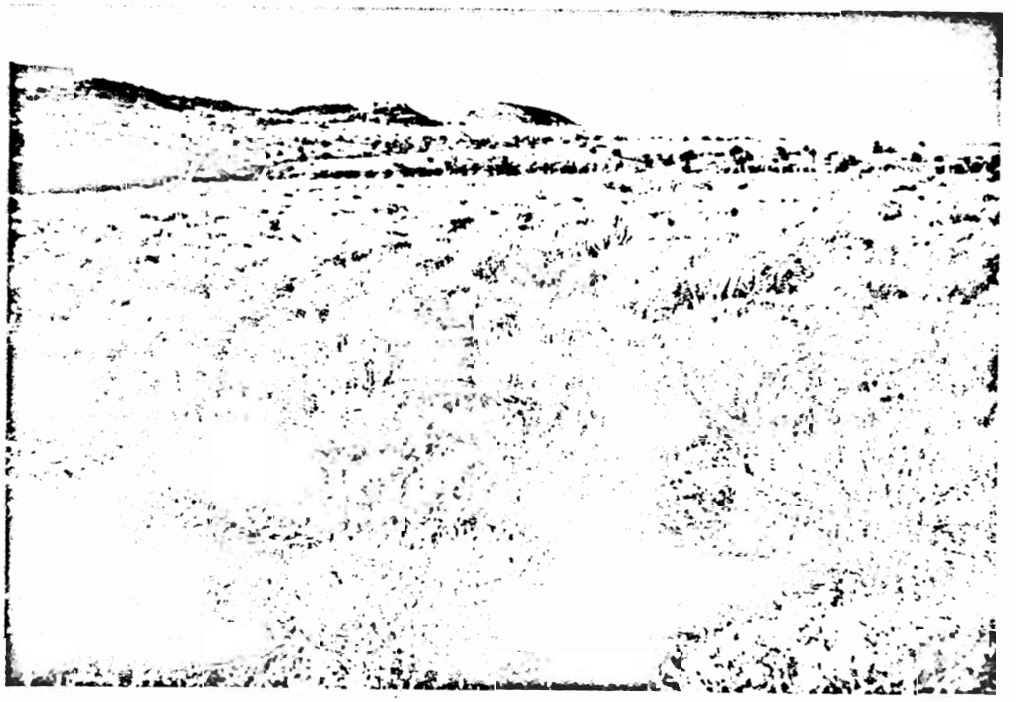
RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.	Cora	∴ ⊠	∴ ⊠⊠	39-78	I=10%
	Epne	∴	⊠	11-22	
Inv.					
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		15			15-30
Hits Dec. & Inc.					
Tot. Rock		25			25-50
Tot. Litter					
Bare Ground		10			10-20
Tot. Cool Season					

Hits
Cora
I=3
Io=23

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
To:												



Pace Transect #40
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWTOOTH PLATEAU Date 5-12-84 Transect No. 41
Aerial Photo No. 12-11 Pace Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 1/16 FC Slope 7%
Key Area _____ Soil M.U. 182 Aspect S 18 W

Location Map:

Bearing N60°E
Soil pit 12-11 #2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production less than 25 lbs/acre. Area bisected by well traveled cattle trail. Area cut by several gullies

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5	No grasses	
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	8	12	20	20	X¼= 5
Inv.	18	62	80	80	X-1= 80
Tot.	26	74	100	100	-75
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard 5 Dated 4-81

VEGETATION

Forage Cover Index 11
Composition 4
Vigor 0
Total 15
Cool Season . . . . . ____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 12
Soil Disturbance Factor 15
Total 27
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 26
Hits, all Rock 12
Litter 6
Bare Soil . . . 56
Total 100
Hits, Dec. + Inc 8
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Epne							Yuba	
—	L	—	—	—	—	—	—	L	—
11	12	13	14	15	16	17	18	19	20
	Cora								
—	—	R	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
			Epne	Epne	Cora	Epne		Cora	
—	R	R	L	Epne	L	R	—	L	—
31	32	33	34	35	36	37	38	39	40
Cora		Cora							
	R	—	R	—	—		—	L	—
41	42	43	44	45	46	47	48	49	50
Cora					Gusa	Opac			
—	—	L	—	L	L	L	—	R	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Sihy
Oph9

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.	Epne	⁘	⁘	10-20	
Inv.	Gusa	⁘	⁘	13-26	
	Bamu		⁘	4-8	
	Yuba	⁘	⁘	3-6	
	Cora	⁘	⁘	19-38	
	Opac	⁘		1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		13		13-26	
Hits Dec. & Inc.		6		6-12	
Tot. Rock		3		3-6	
Tot. Litter		28		28-56	
Bare Ground					
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
S												
Tot.												
C												
Tot.												

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWUP PLATEAU Date 5-12-84 Transect No. 42
Aerial Photo No. 12-11 Pace Interval 3 By SHARROW BREWER
Game Mgmt. _____ Vegetative Type 16 NC Slope 4%
Key Area _____ Soil M.U 183 Aspect N66E

Location Map:

BEARING S10E
SOIL PLOT 12-11-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Shallow soil only 13" in depth. Appears to be several old trails.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

NO GRASSES

CROWN DENSITY (ASPEN-AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	4	6	10	10	X½= 2½
Inv.	34	56	90	90	X·1= 90
Tot.	38	62	100	100	= 87.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 82
Vigor 0
Total 7
Cool Season . . . . . ____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 17
Soil Disturbance Factor 29
Total 46
Condition Class . . . . . F
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 38
Hits, all Rock 20
Litter . . . . . —
Bare Soil . . . 42
Total 100
Hits, Dec. + Inc 4
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
		CoBG						Cora	
R	—	—	—	R	R	—	—	—	R
11	12	13	14	15	13	17	18	19	20
	Cora			Cora	Cora	Cora	Cora	Cora	
R	Cora	—	—	Cora	R	—	Cora	—	—
21	22	23	24	25	23	27	23	29	30
		Cora				Cora	Cora		Cora
R	—	L	—	R	—	—	Cora	—	—
31	32	33	34	35	33	37	38	39	40
Cora			Cora						Cora
Cora	—	—	L	—	—	—	R	R	—
41	42	43	44	45	46	47	48	49	50
		Cord	Cora	Cora				Cora	
—	—	—	L	Cora	—	—	—	Cora	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	73	79	80
81	82	83	84	85	83	87	83	89	90
91	92	93	94	95	93	97	93	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
%							

Yuba .5%
EpNo T
ThMo T
Come .1%
OpAc T
OpBa T
EnFa T

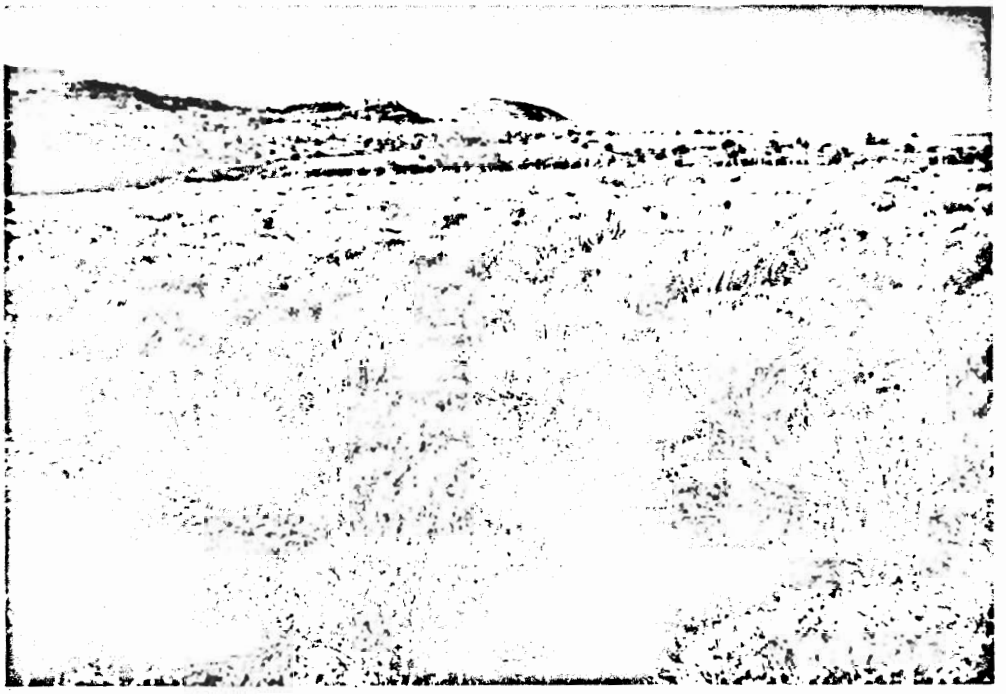
BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Taliv	Total	Allowable
Dec.					
Inc.					
	Cora	☒☐	☒☒☒	50-100	I-10%
Inv.					
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		19		19-34	
Hits Dec. & Inc.					
Tot. Rock		10		10-20	
Tot. Litter					
Bare Ground		21		21-42	
Tot. Cool Season					

Hits
Cora
I=4
IN=34



Pace Transect #42
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-21-84 Transect No. 43

Aerial Photo No. 10-4 Place Interval 3 By EDWARY - D BREWER

Game Mgmt. _____ Vegetative Type 16 FC Slope 8%

Key Area _____ Soil M.U. 194 Aspect NE 62°

Location Map:

BEARING 534W
SOIL POT 10-4-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated to be 50 lbs/acre. Limit use to 20 percent on this M.U.

Leaf Measurements (Vigor)

Species	Beer	
1	1.75	
2	3.20	
3	2.75	
4	2.50	
5	1.60	
6	3.10	
7	1.75	
8	2.90	
9	2.60	
10	2.70	
Tot	28.85	
Ave	2.4	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	10	10	10	X2= 20
Inc.	5	7	12	12	X¼= 3
Inv.	29	49	78	78	X-1= 78
Tot.	34	66	100	100	-55
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 7
Composition 8
Vigor 3
Total 18
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 19
Soil Disturbance Factor 15
Total 34
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 34
Hits, all Rock 29
Litter 8
Bare Soil . . . 34
Total 100
Hits, Dec. + Inc 5
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Cova	Cova		Agut	Cova	Agut			
R	Cova	L	B	B	L	Agut	R	R	B
11	12	13	14	15	16	17	18	19	20
Cova			Gusa	cova			Agut		
L	R	R	L	L	R	L	B	L	R
21	22	23	24	25	26	27	28	29	30
Yuba		Cova	Cova						
L	B	L	L	R	L	L		B	B
31	32	33	34	35	36	37	38	39	40
	Yuba				Cova	Cova			
R	L	B	R	B	L	Cova	OPUN	R	R
41	42	43	44	45	46	47	48	49	50
				Cova	R				
R	B	R	B	B		B	B	B	B
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	83	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Decad
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

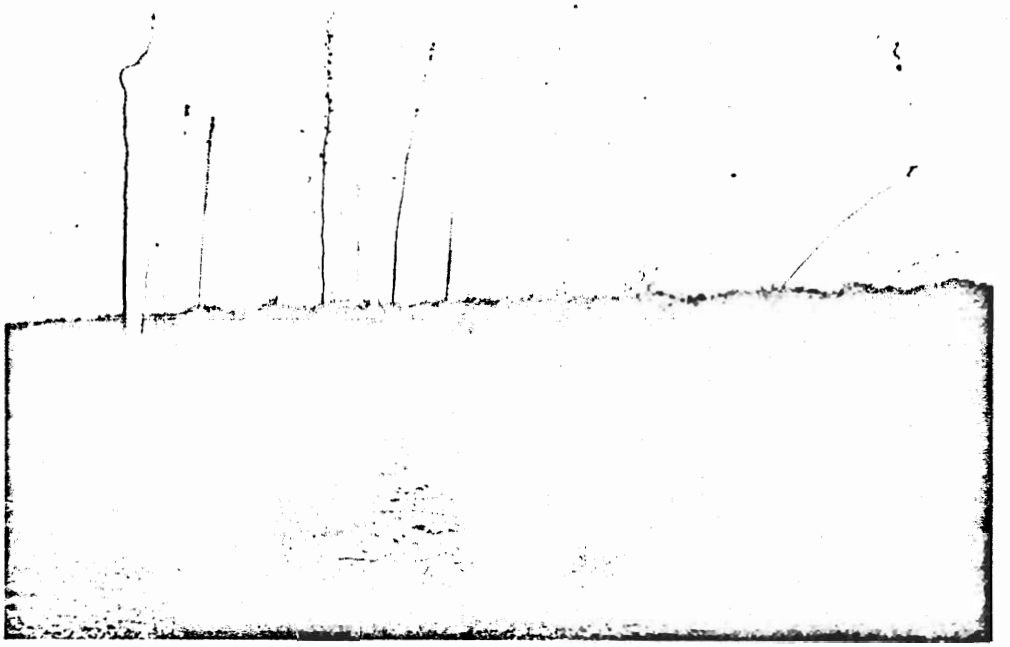
Present
Bocu

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Siby		•	1-2	
	Pofe		•	1-2	
	Oryhy				
	Boer		••	3-6	
	SpCR		•	1-2	
Inc.	AGut	6		7-14	
	OPUN	2	-	2-4	
	Yuba	4		2-4	
	GrEA			4-14	
	CORA	Shrub		20-40	I-10-INV
	Gusa	2		5-10	
	LyCI		•	1-2	
Inv.					
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				17-24	
Hits Dec. & Inc.					
Tot. Rock				12-24	
Tot. Litter				4-8	
Bare Ground				17-24	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #43
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 5-22-84 Transect No. 44
Aerial Photo No. 10-3 Place Interval 3 By JOHN RAY D BREWER
Game Mgmt. _____ Vegetative Type 1 FC Slope 4%
Key Area _____ Soil _____ Aspect N60E

Location Map:

Bearing: N60°E
Soil pit 10-3 #5

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Forage production estimated to be 300 to 400 lbs/acre.

Leaf Measurements (Vigor)

Species	Stco	Beer
1	8.5	2.5
2	10.3	1.9
3	10.5	2.4
4	11.1	3.1
5	9.7	3.3
6	13.0	2.8
7	12.5	2.7
8	11.6	2.8
9	15.3	3.4
10	11.2	4.1
Tot	113.7	29.0
Ave	11	2.9

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	30	64	94	94	X2= 188
Inc.	0	0	0	0	X½= 0
Inv.	0	6	6	6	X-1= 6
Tot.	30	70	100	100	+ 182
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 36
Composition 5
Vigor 10
Total 97
Cool Season . . . . . ____
Condition Class . . . EXCELLENT
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 18
Soil Disturbance Factor 45
Total 63
Condition Class . . . . . GOOD
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 30
Hits, all Rock 0
Litter 32
Bare Soil . . . 38
Total 100
Hits, Dec. + Inc 30
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
L	L	L	L	L	STCO	Orhy	L	Sibu	L
11	12	13	14	15	16	17	18	19	20
ATCA									
ATCA	B	Boer	Boer	B	B	B	B	L	L
21	22	23	24	25	26	27	28	29	30
Steo	L	Boer	Stco	B	Boer	Boer	B	Boer	L
31	32	33	34	35	36	37	38	39	40
L	L	Stec	B	B	L	B	B	B	B
41	42	43	44	45	46	47	48	49	50
B	Boer	B	B	Steo	L	L	B	B	B
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
[illegible]							

Prescot
Eulg
Stco
Spce
Mupo

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	ATCA	•	'	2-4	
	Orhy	•	⁝	3-6	
	Boer	⁞	⁞	13-26	
	STCO	⁞	⁞	25-50	
	Sibu	•	⁚	4-8	
Inc.					
Inv.	Gusa		⁚	2-4	
	Typa		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		⁞		15-30	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter		⁞		16-32	
Bare Ground		⁞		19-38	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #44
Sanup Plateau



PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-22-84 Transect No. 45
Aerial Photo No. 10-3 Pace Interval 3 By JOHN RAY D BREWER
Game Mgmt. _____ Vegetative Type 16 FC Slope 6%
Key Area _____ Soil M.U. 194 Aspect S16°E

Location Map:

BEARING S 42 W
SOIL PLOT 10-3-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Forage production less than 25 lbs/acre limit use to 2090 on this unit.

Leaf Measurements (Vigor)

Species		
1	NONE AVAILABLE	
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN-AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 4
Inc.	4	8	12	12	X¼= 3
Inv.	12	74	86	86	X 1= 86
Tot.	16	84	100	100	= 79
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 4
Vigor 1
Total 10
Cool Season _____
Condition Class VP
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 15
Soil Disturbance Factor 10
Total 25
Condition Class P
Current Trend →

Summary of Hits

Hits, all Plants 16
Hits, all Rock 28
Litter 8
Bare Soil 48
Total 100
Hits, Dec. + Inc 4
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
B	R	B	B	B	B	B	B	B	B
11	12	13	14	15	16	17	18	19	20
				Cora			Yuba		
B	Agut	R	EPRI	Cora	L	R	Yuba	B	R
21	22	23	24	25	26	27	28	29	30
		Cora		Cora					
B	L	Cora	R	Cora	R	B	B	B	L
31	32	33	34	35	36	37	38	39	40
L	R	B	Gusa	B	L	R	B	B	B
41	42	43	44	45	46	47	48	49	50
L	R	R	B	R	B	B	R	R	B
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
6							
6							
7							
8							
9							
10							
Tot.							
Ca.							

TxPu
Acax

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	ANOR		•	2	
Inc.					
	EPRI	•		2	
Inv.	Cora	∴(21)	⊠⊠	50	I-10%
	OPUN				
	Yuba	•		2	
	Agut	•	11	19a	
	Gusa	•	11	19	
	HyLy		•	2	
	BNK		:1	10	
	Trpu		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		8		8-16	
Hits Dec. & Inc.				14-28	
Tot. Rock				4-8	
Tot. Litter				24-48	
Bare Ground					
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #45
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-22-84 Transect No. 46
Aerial Photo No. 10-3 Place Interval 3 By JOHN RAY D BREWER
Game Mgmt. _____ Vegetative Type 16 FC Slope 2%
Key Area _____ Soil M.d 194 Aspect S 84 W

Location Map:

Bearing: S84°W
soil plot 10-3 #2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Forage production less than 25 lbs/acre. Limit use to 20 percent.

Leaf Measurements (Vigor)

Species	
1	NOTHING TO MEASURE
2	
3	
4	
5	
6	
7	
8	
9	
10	
Tot	
Ave	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	0	2	2	X2= 4
Inc.	7	13	20	20	X¼= 5
Inv.	29	49	78	78	X·1= 78
Tot.	38	62	100	100	= 69
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 12
Composition 6
Vigor 1
Total 19
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 17
Soil Disturbance Factor 20
Total 37
Condition Class . . . . . Poor
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 38
Hits, all Rock 18
Litter 4
Bare Soil . . . 40
Total 100
Hits, Dec. + Inc 9
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vege tation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Cora									
JB	JB	R	JB	JB	R	R	R	R	JB
11	12	13	14	15	16	17	18	19	20
	Cord	Cora			Yuba				Cora
JB	L	JB	JB	JB	Yuba	R	JB	R	JB
21	22	23	24	25	26	27	28	29	30
				Epvi			Cora		Yuba
JB	JB	JB	JB	Epvi	JB	JB	Cord	JB	Yuba
31	32	33	34	35	36	37	38	39	40
Cord	Cord				Epvi				Cora
Cora	Cord	R	JB	Gusa	Epvi	L	L	JB	Cora
41	42	43	44	45	46	47	48	49	50
					Atca	Cora	Cora	Cord	Cora
R	R	JB	JB	Gusa	Atca	Cora	Cora	L	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

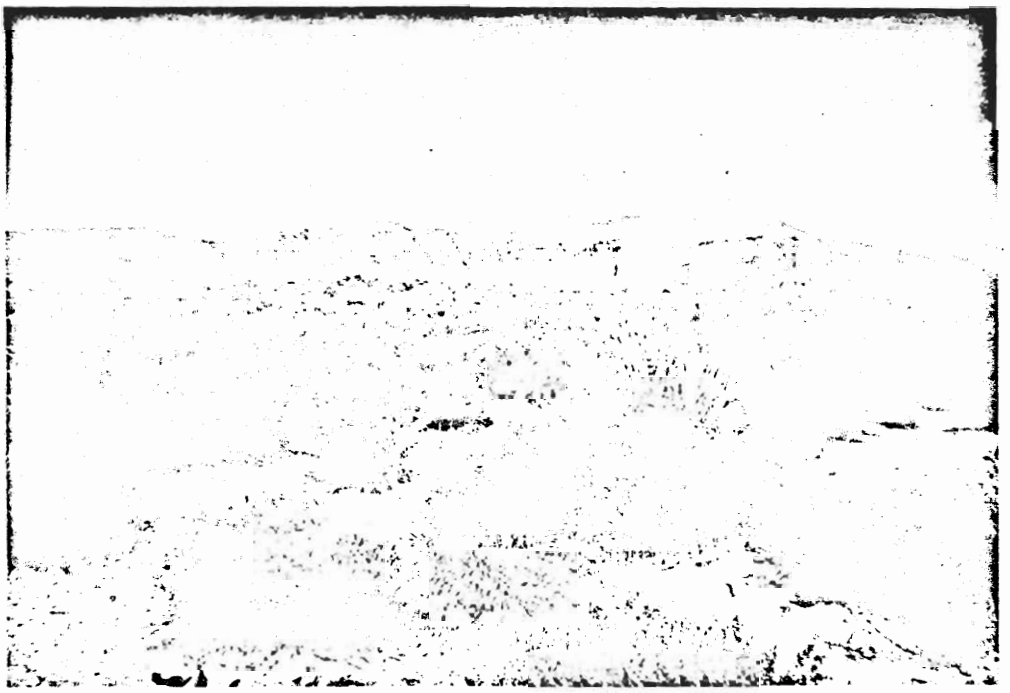
Precept
Sihi
Typu
Mupo
Come

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Bocr				
	Atca	•		2	
Inc.	Epvi	:	::	10	
Inv.	Cora	⊠"I-3	⊠⊠:"	70	I-10
	Gusa	:	::	8	
	Yuba	:	.	6	
	OPUN		:	2	
	Hyla		:	2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				19=38	
Hits Dec. & Inc.				9=18	
Tot. Rock				2=4	
Tot. Litter				20=40	
Bare Ground					
Tot. Cool Season					

BROWSE CONDITION

Specim	AGE CLASS Y	M	Dec.	Od.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #46
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWUP PLATEAU Date 5-22-84 Transect No. 47
Aerial Photo No. 10-3 Place Interval 3 By JOHN RAY D BREWER
Game Mgmt. _____ Vegetative Type 16 FC Slope 13%
Key Area _____ Soil MU 194 Aspect 578° W

Location Map:

BEARING N 14° W
SOIL PIT 10-3 #1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Forage production estimated to be 50 lbs/acre. Limit use to 20% on this unit

Leaf Measurements (Vigor)

Species	Poor-	
1	3.0	
2	2.1	
3	3.2	
4	3.1	
5	5.1	
6	4.0	
7	2.2	
8	3.1	
9	3.2	
10	2.9	
Tot	31.9	
Ave	3.2	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	8	22	30	30	X2 = 60
Inc.	4	6	10	10	X¼ = 2.5
Inv.	22	38	60	60	X-1 = 60
Tot.	34	66	100	100	+ 2.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 16
Composition 19
Vigor 3
Total 38
Cool Season . . . . . ____
Condition Class . . . Poor
Current Trend . . . . ____
Trend Indicators →

SOIL STABILITY

Bare Soil Index 29
Soil Disturbance Factor 30
Total 59
Condition Class . . . . . F
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 34
Hits, all Rock 42
Litter 6
Bare Soil . . . 18
Total 100
Hits, Dec. + Inc 12
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Cora	Cora		Cora	Cora					
B	R	R	Cora	Cora	B	R	R	Boer	Boer
11	12	13	14	15	16	17	18	19	20
Cora						Yuba			
Cora	B	R	R	R	R	Yuba	R	L	L
21	22	23	24	25	26	27	28	29	30
	Cora				Yuba	Cora		Cora	Cora
R	Cora	R	B	R	Yuba	Cora	Boer	L	L
31	32	33	34	35	36	37	38	39	40
				Cora					
B	R	R	Boer	Cora	L	R	L	R	R
41	42	43	44	45	46	47	48	49	50
R	B	R	B	B	R	R	R	B	B
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

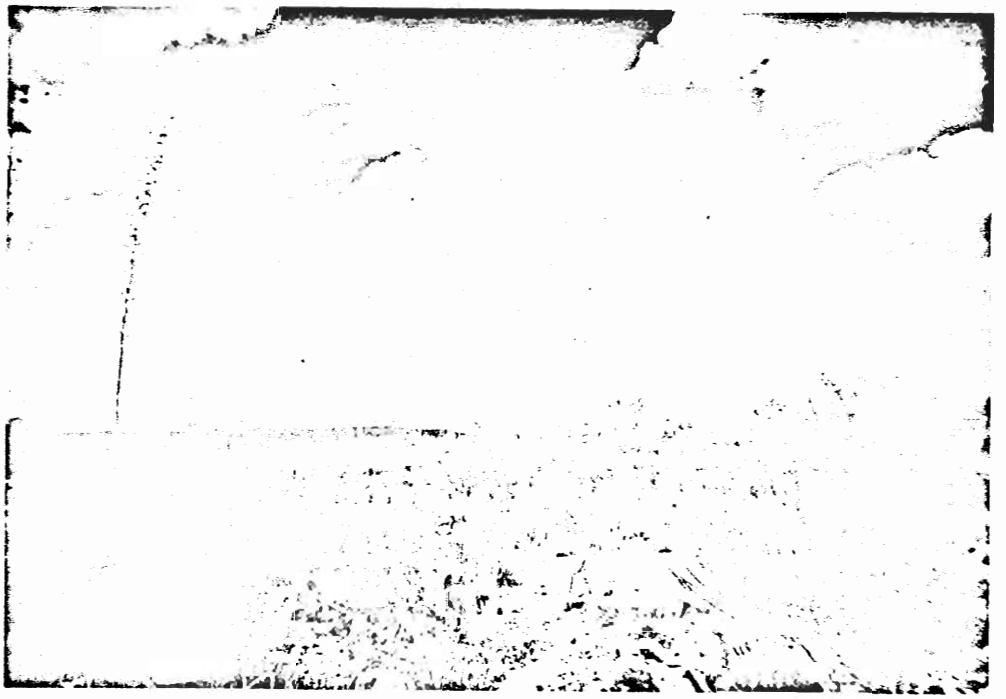
Present
Hylu
Epedra
Hija

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	11	☒	14-28	
	Orhy			1-2	
Inc.	Epvi				
Inv.	Cora	☒ 41	☒ 11	26-52	10% T
	Yuba			3-6	
	Gusa			3-6	
	OPUN			2-4	
	Hylu			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				17-34	
Hits Dec. & Inc.					
Tot. Rock				21-42	
Tot. Litter				3-6	
Bare Ground				9-18	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #47
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWTOOTH PLATEAU Date 5-22-84 Transect No. 48

Aerial Photo No. _____ Plane Interval _____ By JOHN RAY D BREWER

Game Mgmt. _____ Vegetative Type 16 NC Slope 34%

Key Area _____ Soil MH 184 Aspect N 8°E

Location Map:

BEARING N66W
SOIL PLOT 10-3-3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Forage production less than 25 lbs/acre. Geologically unstable slope.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

NONE AVAILABLE

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	6	6	6	X2= 12
Inc.	5	9	14	14	X¼=3.5
Inv.	17	63	80	80	X-1=80
Tot.	22	73	100	100	=64.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 7
Composition 6
Vigor 1
Total 14
Cool Season . . . . . ____
Condition Class . . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 24
Soil Disturbance Factor 20
Total 44
Condition Class . . . . . F
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 22
Hits, all Rock 44
Litter 8
Bare Soil . . . 26
Total 100
Hits, Dec. + Inc 4
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Cord		Cord	Cord			
JB	R	JB	Cord	R	JB	L	JB	R	R
11	12	13	14	15	16	17	18	19	20
Cord	Cord	Cord							
Cord	L	L	JB	L	JB	R	JB	JB	R
21	22	23	24	25	26	27	28	29	30
JB	R	R	JB	R	R	JB	R	JB	JB
31	32	33	34	35	36	37	38	39	40
								Cord	
L	L	L	R	R	JB	R	R	Cord	R
41	42	43	44	45	46	47	48	49	50
						Cord	Cord		Cord
Epvi	R	R	R	R	R	Cord	L	R	Cord
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

~~Preset~~
Lyci
Come
Orhy
Spev

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Atca		•	1-2	
	Come		••	2-4	
Inc.	Epvi	•	•	2-4	
Inv.	Cord	☒ 1-3	☒☒☒	40-80	1-10%
	OPUN				
	Gusa		:	5-10	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				11-22	
Hits Dec. & Inc.				22-44	
Tot. Rock				4-8	
Tot. Litter				13-26	
Bare Ground					
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #48
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWTOOTH PLATEAU Date 5-23-84 Transect No. 49
Aerial Photo No. 8-2 Place Interval 3 By JOHN RAY D BREWER
Game Mgmt. _____ Vegetative Type 16 NC Slope 48%
Key Area _____ Soil M.U 177 Aspect S82E

Location Map:

BEARING S68E
SOIL PLOT 8-2-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Steep, rocky slope. Forage production less than 25 lbs/Acre

Leaf Measurements (Vigor)

Species	Strip 2	
1	7.5	
2	5.8	
3	7.2	
4	6.4	
5	5.0	
6	5.4	
7	6.2	
8	5.0	
9	5.3	
10	6.0	
Tot	59.8	
Ave	6	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	18	20	20	X2=40
Inc.	7	21	21	28	X¼=7
Inv.	11	41	52	52	X1=52
Tot.	20	80	100	100	-5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 12
Composition 17
Vigor 4
Total 33
Cool Season . . . . . _____
Condition Class . . . POOR
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 20
Soil Disturbance Factor 35
Total 55
Condition Class . . . . . FAIR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 20
Hits, all Rock 44
Litter 4
Bare Soil . . . 22
Total 100
Hits, Dec. + Inc 9
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
					Cora				
R	R	R	Erfa	R	Cora	R	JB	JB	L
11	12	13	14	15	16	17	18	19	20
R	L	R	R	JB	R	Cora	R	Agut	R
21	22	23	24	25	23	27	28	29	30
JB	JB	JB	JB	R	R	JB	JB	R	R
31	32	33	34	35	36	37	38	39	40
R	JB	Stip	R	R	R	Yuba	JB	JB	R
41	42	43	44	45	46	47	48	49	50
	Cora								
JB	Cora	Agut	R	JB	JB	STIP	R	Come	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	78	79	80
81	82	83	84	85	83	87	83	89	90
91	92	93	94	95	93	97	93	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							

Present
Lyci
JOSHUA TREE
Sphe

RANGE COMPOSITION

Class	Species	Hits	Foliv	Total	Allowable
Doc.	AtCa		•	1-2	
	Come	•	□	9-18	
Inc.	StSp	" 4	⊔	8-16	
	Epvi		•	1-2	
Inv.	Cora	6"3-I	□	11-22	I-10
	Agut	" 4	⊔	6-12	
	Yuba	2		1-2	
	Erfa	2	⊠	10-20	
	Gusa		•	2-4	
Rock					
Tot. Doc.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		10		10-20	
Hits Dec. & Inc.					
Tot. Rock		22		22-44	
Tot. Litter		2		2-4	
Bare Ground		16		16-32	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #49
Sanup Plateau

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 5-23-84 Transect No. 50
Aerial Photo No. 8-2 Pace Interval 3 By JOHN RAY · D BREWER
Game Mgmt. _____ Vegetative Type 1 FC Slope 3%
Key Area _____ Soil MU 195 Aspect N 20 E

Location Map:

BEARING S60E
SOIL PLOT 8-2#4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Forage production estimated to be 150-200 lbs/acre with utilization ≤ 25%

Leaf Measurements (Vigor)

Species	Hija	
1	2.0	
2	3.3	
3	2.3	
4	3.0	
5	3.8	
6	3.6	
7	4.0	
8	3.8	
9	3.9	
10	4.0	
Tot	33.7	
Ave	3.0	

CROWN DENSITY (ASPEN-AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	28	30	30	X2=60
Inc.	5	10	15	15	X½=3.75
Inv.	17	38	55	55	X-1=56
Tot.	24	76	100	100	+8.75
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 9
Composition 25
Vigor 4
Total 33
Cool Season . . . . . _____
Condition Class . . . Poor
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 9
Soil Disturbance Factor 35
Total 44
Condition Class . . . . . FAIR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 24
Hits, all Rock 6
Litter 10
Bare Soil . . . 66
Total 100
Hits, Dec. + Inc 17
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
JB	B	Boer	B	B	Hija	B	B	JB	JB
11	12	13	14	15	16	17	18	19	20
JB	JB	B	L	JB	JB	L	JB	JB	B
21	22	23	24	25	26	27	28	29	30
JB	JB	JB	JB	L	JB	JB	Hija	Hija	Hija
31	32	33	34	35	36	37	38	39	40
Hija	JB	Hija	JB	L	Hija	JB	Hija	Hija	JB
41	42	43	44	45	46	47	48	49	50
Hija	JB	JB	JB	L	Hija	JB	JB	JB	JB
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	78	79	80
81	82	83	84	85	83	87	88	89	90
91	92	93	94	95	93	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

ARIS
Sihy
Orhy
Spcr

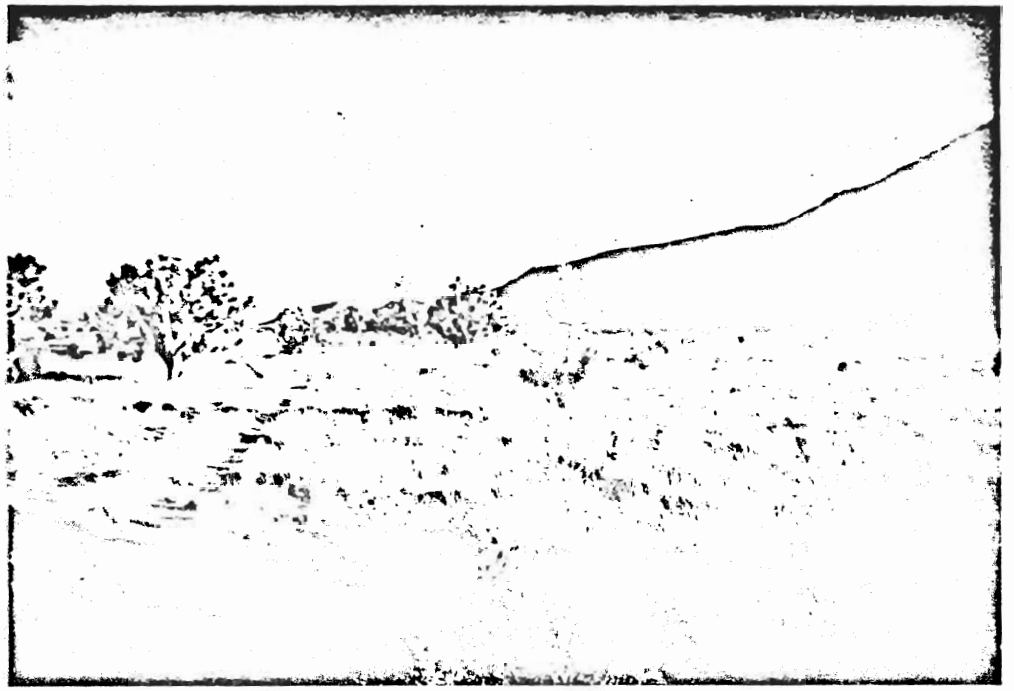
RANGE COMPOSITION

Class	Species	Hits	Taliy	Total	Allowable
Dec.					
	Boer		☒	15-30	
Inc.	Hija	☒	☒☒	31-62	I-15→IN 15.22=5.32 62
Inv.	Card			1-2	
	Trpy			1-2	
	Sabr			1-2	
	Gusa			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		☒		12-24	
Hits Dec. & Inc.					
Tot. Rock		∅			
Tot. Litter				5-10	
Sprs. Ground		☒☒☒		33-66	
Tot. Cool Season					

Hits
Hija
I-5
IN-17

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #50
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date _____ Transect No. 57
Aerial Photo No. 8-2 Place Interval 3 By D BREWER, JOHN RAY
Game Mgmt. _____ Vegetative Type 16 NC Slope 47°
Key Area _____ Soil 144 179 Aspect N78°E

Location Map:

BEARING S30E
SOIL PLOT 8-2#1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Very rocky steep slope, Forage production estimated to be less than 25 lbs/acre.

Leaf Measurement: (Vigor)

Species		STIP
1		6
2		5
3		7
4		7
5		7
6		5
7		4
8		7
9		6
10		5
Tot		59
Ave		5.9

CROWN DENSITY (ASPEN-AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	22	24	24	X2=48
Inc.	3	23	26	26	X½=6.5
Inv.	5	45	50	50	X.1=5
Tot.	10	90	100	100	=59.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 7
Composition 19
Vigor 4
Total 30
Cool Season . . . . . _____
Condition Class . . . POOR
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 36
Soil Disturbance Factor 30
Total 66
Condition Class . . . . . GOOD
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 10
Hits, all Rock 62
Litter 6
Bare Soil . . . 22
Total 100
Hits, Dec. + Inc 5
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
JB	R	R	R	R	Gusa	L	JB	R	Gusa
11	12	13	14	15	16	17	18	19	20
R	P	R	R	R	R	R	Epvi	L	R
21	22	23	24	25	26	27	28	29	30
							Atca		
R	JB	R	R	B	R	R	Atca	JB	R
31	32	33	34	35	36	37	38	39	40
L	R	R	JB	B	R	JB	R	R	JB
41	42	43	44	45	46	47	48	49	50
Cora									
Cora	R	JB	R	R	R	JB	JB	R	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

JOSHUA TREE
SPOR
Atca
Rhtr

BROWSE CONDITION

Specim	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Atca	•	•	4	
	Come		⊠	10-20	
Inc.	EPUI	•	:•	8	
	Stsp		::	8	
Inv.	Cora	:	⊠	20	1-10%
	Gusa	:	⊠	26	
	Bgut		:•	6	
	Spha				
	Yuba		::	8	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		5		5-10	
Hits Dec. & Inc.					
Tot. Rock		31		31-62	
Tot. Litter		3		3-6	
Bare Ground		11		11-22	
Tot. Cool Season					

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment: SAWTOOTH PLATEAU Date: _____ Transect No.: 52

Aerial Photo No.: 10-2 Pace Interval: 3 By: JOHN RAY & D BREWER

Game Mgmt.: _____ Vegetative Type: 16 NC Slope: 42°

Key Area: _____ Soil: MU. 177 Aspect: N 68 E

Location Map:

BEARING S
SOIL PLOT 10-2-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Rocky steep slope no capacity, Forage production estimated to be less than 25 lbs/acre

Leaf Measurements (Vigor)

Species		
1	None Available	
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	8	12	12	X2= 24
Inc.	4	30	34	34	X¼=8.5
Inv.	0	54	54	54	X·1=54
Tot.	8	92	100	100	=21.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4-81

VEGETATION

Forage Cover Index: 11
Composition: 14
Vigor: 0
Total: 25
Cool Season: _____
Condition Class: POOR
Current Trend: →
Trend Indicators: _____

SOIL STABILITY

Bare Soil Index: 18
Soil Disturbance Factor: 35
Total: 53
Condition Class: FAIR
Current Trend: →

Summary of Hits

Hits, all Plants: 8
Hits, all Rock: 52
Litter: 4
Bare Soil: 36
Total: 100
Hits, Dec. + Inc: 8
Cool Season: _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
R 11	R 12	R 13	R Come 14	R Come 15	R 16	L 17	R 18	R 19	R 20
R 21	JB 22	JB 23	Come 24	R 25	R 23	R 27	R 28	JB 29	R 30
R 31	JB 32	JB 33	JB 34	R 35	R 33	R 37	R 38	R 39	JR 40
JB 41	Fapi 42	R 43	R 44	JB 45	JB 46	Stsp 47	L 48	JB 49	JB 50
R 51	R 52	JB 53	R 54	JB 55	JB 56	R 57	JB 58	JB 59	R 60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	78	79	80
81	82	83	84	85	83	87	88	89	90
81	82	83	84	85	83	87	88	89	100

COMPOSITION BY SIZE CLASS : RIPARIAN : ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

4yem
JOSHUA TREE

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Come	::	::	6-12	
Inc.					
	EPUI	:	::	3-6	
	Stsp	:	⊠:	14-28	
Inv.	Core		⊠::	14-28	I-10
	Yuba		::	2-4	
	Aaut		::	1-2	
	Spba		:::	4-8	
	Atar		::	2-4	
	Opun		:	1-2	
	Gusa		::	2-4	
	Efpa		:	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		::		4-8	
Hits Dec., & Inc.					
Tot. Rock		⊠⊠		26-52	
Tot. Litter		::		2-4	
Bare Ground		⊠□		18-36	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot												



Pace Transect #52
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 5-23-84 Transect No. 53
Aerial Photo No. 8-2 Pace Interval 3 By JOHN RAY D BREWER
Game Mgmt. _____ Vegetative Type 16 FC Slope 10/0
Key Area _____ Soil MU 195 Aspect N 62 E

Location Map:
Bearing S28°E
Soil plot 8-2 #3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5	4	
6	4	
7	4	
8	4	
9	4	
10	1/0	
Tot	1	
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Comments: This portion of M.U. 195 is very similar to 178 in the existing perennial forage is zero. However since it is associated with grassland unit and it can't be seperated will through it into grassland.

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 14
Inc.	2	0	2	2	X½= .5
Inv.	36	60	96	96	X-1= 96
Tot.	38	62	100	100	-91.50
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 3
Composition 1
Vigor 0
Total 4
Cool Season . . . . . _____
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 16
Soil Disturbance Factor 31
Total 51
Condition Class . . . . . FAIR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 38
Hits, all Rock 18
Litter 0
Bare Soil . . . 44
Total 100
Hits, Dec. + Inc 2
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Cora	Cora	Cora				Cora
JB	JB	JB	Cora	JB	Cora	JB	JB	K	K
11	12	13	14	15	16	17	18	19	20
Cora	Cora	Cora	Cora	Cora	Cora			Cora	Cora
Cora	Cora	Cora	JB	L	Cora	JB	JB	JB	K
21	22	23	24	25	26	27	28	29	30
	Cora							Cora	
K	Cora	JB	JB	JB	JB	K	JB	Cora	K
31	32	33	34	35	36	37	38	39	40
				Cora					Cora
JB	JB	K	JB	Cora	JB	K	JB	JB	Cora
41	42	43	44	45	46	47	48	49	50
		Cora							
Gusa	JB	Cora	Epyl	JB	K	JB	JB	K	K
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
%							

JOSHUA TREE
CHOLLA

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		•	1-2	
Inc.	Epyl	•		1-2	
Inv.	Cora	☒☐	☒☒:	42-84	
	Opun		•	1-2	
	Lycl		:•	2-4	
	Gusa	•	:•	2-4	
	Typu		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		☒☒		19-38	
Hits Dec. & Inc.					
Tot. Rock		☒		9-18	
Tot. Litter					
Bare Ground		☒☒:•		22-44	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd	1	2	3	4	5	6		
A												
Tot.												
S												
Tot.												
C												
Tot.												



Pace Transect #53
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWUP PLATEAU Date 6-4-84 Transect No. 54

Aerial Photo No. 14-7 Place Interval 3 By GALEANO

Game Mgmt. _____ Vegetative Type 1/16 NC Slope 15-45 (25%)

Key Area _____ Soil M4184 Aspect SSW

Location Map:

BEARING
SOIL PLOT 14-7-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: This is a minor inclusion in NC AREA. Mapping will show NC. Soil depth 19 inches

Leaf Measurements (Vigor)

Species	Oak	
1	7	
2	8	
3	9	
4	7	
5	11	
6	7	
7	9	
8	12	
9	11	
10	10	
Tot	91	
Ave	9	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	10	34	44	44	X2=88
Inc.	6	10	16	16	X¼=4
Inv.	8	32	40	40	X1=40
Tot.	24	76	100	100	+52
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 21

Composition 27

Vigor 9

Total 57

Cool Season .....

Condition Class ... FAIR

Current Trend .... →

Trend Indicators _____

SOIL STABILITY

Bare Soil Index 18

Soil Disturbance Factor 35

Total 53

Condition Class ..... FAIR

Current Trend ..... →

Summary of Hits

Hits, all Plants 24

Hits, all Rock 54

Litter 6

Bare Soil ... 36

Total 106

Hits, Dec. + Inc 16

Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	R	—	—	R	R	R	—	—
11	12	13	14	15	16	17	18	19	20
R	Orhy	L	Boer	R	Epvi	—	—	R	L
21	22	23	24	25	26	27	28	29	30
—	Boer	R	Guti	—	—	Orhy	R	R	Guti
31	32	33	34	35	36	37	38	39	40
R	R	—	R	Boer	L	—	Epvi	—	R
41	42	43	44	45	46	47	48	49	50
R	—	Erco	Epvi	R	—	R	—	Spha	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Shrub		Sprout			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							

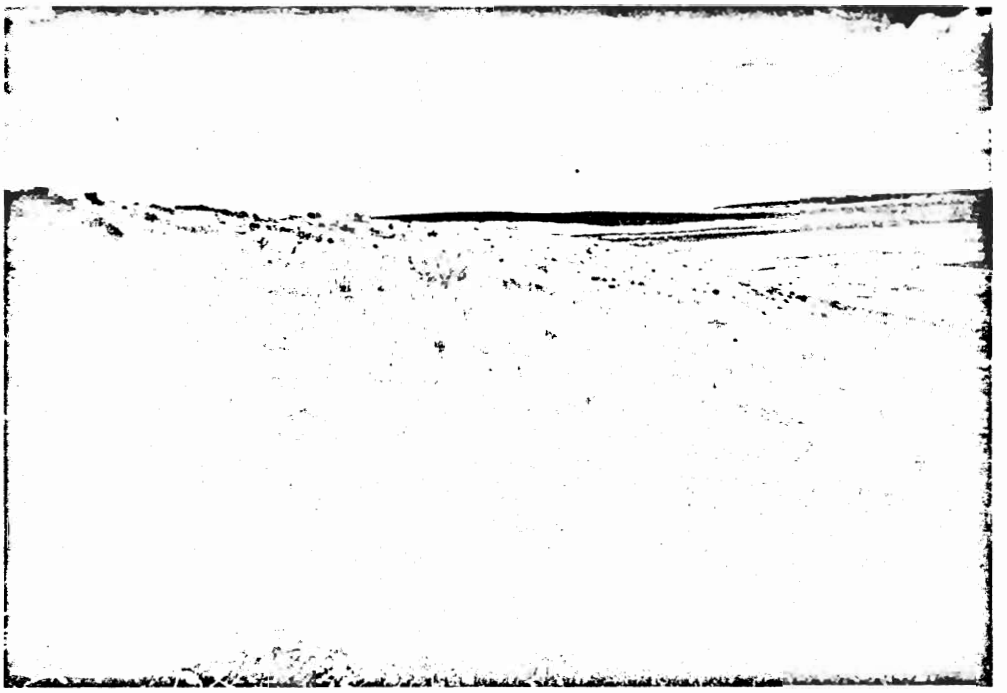
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RANGE COMPOSITION

Class	Species	Hits	Taliy	Total	Allowable
Dec.	ACTA				
	Orhy	::	⊠.]	18-36	
	Boer	::	.	4-8	
	Sihy(10)				
Inc.	Epvi	::	::	6-12	
2	TRADRIS MUTGRIS		:	2-4	
Inv.	YUBA		:	2-4	
	Guti	:	:]	8-16	
	Spha	:	::	5-10	
	Erun		.	1-2	
	Trpa		.	1-2	
	Erlo	.	.	2-4	
	ARIS-L		.	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		12		12-24	
Hits Dec. & Inc.					
Tot. Rock		17		17-34	
Tot. Litter		3		3-6	
Bare Ground		18		18-36	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #54
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment GRAND WASH Hook Date 6-4-84 Transect No. 55
Aerial Photo No. 8-3 Place Interval ___ By JEAN ARMSTRONG - BREWER
Game Mgmt. GCNP Vegetative Type 16 NC Slope 18%
Key Area ___ Soil MU 184 Aspect ___

Location Map:

BEARING S30W
SOIL PLOT 8-3-3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Less than 25 lbs/acre of production

Leaf Measurements (Vigor)

Species	Boer	
1	5	
2	6	
3	5 1/2	
4	4 1/2	
5	8	
6	8 1/2	
7	7 1/2	
8	2	
9	7 1/2	
10	8	
Tot	67.5	
Ave	6.8	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	8	16	24	24	X2=48
Inc.	2	12	14	14	X¼=3.5
Inv.	4	58	62	62	X·1=62
Tot.	14	46	100	100	-10.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 13
Composition 16
Vigor 7
Total 36
Cool Season . . . . . ___
Condition Class . . . POOR
Current Trend . . . . →
Trend Indicators ___

SOIL STABILITY

Bare Soil Index 22
Soil Disturbance Factor 30
Total 52
Condition Class . . . . . FAIR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 14
Hits, all Rock 58
Litter . . . . . —
Bare Soil . . . 28
Total 100
Hits, Dec. + Inc 10
Cool Season ___

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Rock	Rock	—	Rock	Rock	—	Rock	Rock	PAPA	—
11	12	13	14	15	16	17	18	19	20
			Core						
—	Rock	Rock	—	Rock	—	—	Rock	Rock	UNK
21	22	23	24	25	26	27	28	29	30
Core									
	—	Rock	Rock	Rock	Rock	Rock	—	—	—
31	32	33	34	35	36	37	38	39	40
Rock	Rock	Rock	—	Rock	—		Rock	Rock	Rock
41	42	43	44	45	46	47	48	49	50
Rock	Rock	Rock	Rock	—	—	Rock	—	—	Rock
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	dBOCU		;;	3-6	
	Fapa	'	::	3-6	D-15%
	Come-l	'''	'''	6-12	
Inc.	Star		::	4-8	
	Core	.	::	3-6	I-10%
Inv.	Arar		::	4-8	
	Yuba		;;	6-12	
	Gusa	.	''	3-6	
	SPHA		.	1-2	
	Leer		::	6-12	
	ERIO		;;	6-12	
	UNK	'	''''	5-10	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		7		7-14	
Hits Dec. & Inc.					
Tot. Rock		29		29-58	
Tot. Litter					
Bare Ground				0	
Tot. Cool Season				14-28	

BROWSE CONDITION

Specim	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #55
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment GRAND WASH HOOK Date 6-4-84 Transect No. 56
Aerial Photo No. 8-3 Place Interval ____ By JEAN ARMSTRONG
Game Mgmt. GCNP Vegetative Type 1 FC Slope 3%
Key Area ____ Soil MU 182 Aspect N 40 W

Location Map:

BEARING N 45 W
SOIL PLOT 8-3-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated to be 100-150 lbs/acre.

Leaf Measurements (Vigor)

Species	Stan	Boer
1	11	1
2	6	2½
3	4½	2
4	6½	2½
5	6	1½
6	8	1½
7	9	1
8	4	1
9	7	2½
10	8	3
Tot	70	18.5
Ave	7	1.9

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	20	54	74	74	X2=148
Inc.	0	6	6	6	X¼=1.5
Inv.	0	20	20	20	X-1=20
Tot.	20	80	100	100	+129.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 27
Composition 41
Vigor 5
Total 73
Cool Season . . . . . ____
Condition Class . . . . Good
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 30
Total 35
Condition Class . . . . . Poor
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 20
Hits, all Rock 0
Litter 0
Bare Soil . . . 80
Total 100
Hits, Dec. + Inc 20
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Boer	—	—	—	—	—	Boer	—	—	Boer
11	12	13	14	15	16	17	18	19	20
—	—	—	Boer	—	Boer	—	—	Boer	—
21	22	23	24	25	26	27	28	29	30
—	—	Boer	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
—	—	—	Boer	—	Boer	—	—	—	—
41	42	43	44	45	46	47	48	49	50
—	—	—	—	—	—	—	—	—	Boer
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

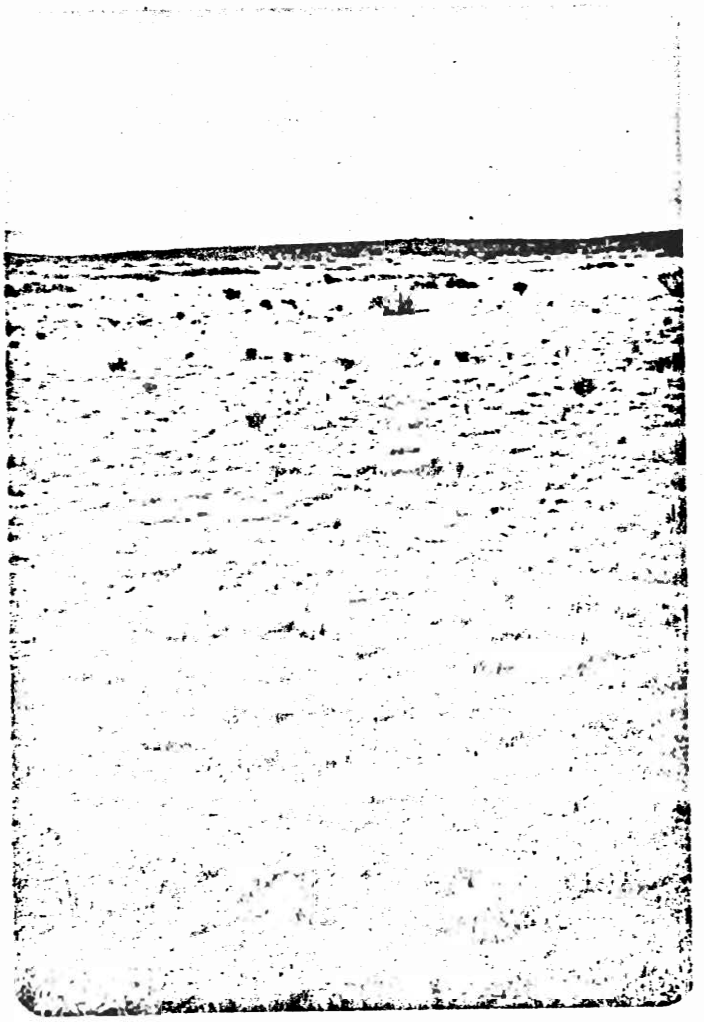
Ephedra
WINTER FAT
1 UNKNOWN

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	⊠	⊠⊠	33-66	
	Stco		::	4-8	
Inc.	Ephedra		::	3-6	
Inv.	Gusa		::	6-12	
	SPHA		::	4-8	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		10		10-20	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter					
Bare Ground		40		40-80	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #56
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment GRANDWASH HOOK Date 6-4-84 Transect No. 57
Aerial Photo No. 8-3 Place Interval 3 By JEAN ARMSTRONG-BREWER
Game Mgmt. GCNP Vegetative Type 1 FC Slope 3%
Key Area _____ Soil MU 195 Aspect N 8 E

Location Map:

BEARING N 50 E
SOIL PLOT 8-3-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated to be 50 to 75 lbs/acre, with utilization around 50%.

Leaf Measurements (Vigor)

Species	Boer	
1	4 1/2	
2	3	
3	1 1/2	
4	2 1/2	
5	2 1/2	
6	2	
7	2	
8	2 1/2	
9	2	
10	1 1/2	
Tot	24	
Ave	2.4	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	12	52	64	64	X2= 128
Inc.	0	0	0	0	X½= 0
Inv.	4	32	36	36	X-1= 36
Tot.	16	84	100	100	+ 92
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 16
Composition 35
Vigor 3
Total 54
Cool Season . . . . . ____
Condition Class . . . FAIR
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 4
Soil Disturbance Factor 21
Total 25
Condition Class . . . . . P
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 16
Hits, all Rock 0
Litter 0
Bare Soil . . . 84
Total 100
Hits, Dec. + Inc 12
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	Boer	-	—	Boer	—	Sebr	-
21	22	23	24	25	26	27	28	29	30
—	—	—	Boer	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
Boer	—	—	Boer	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
—	—	—	—	Boer	—	—	—	—	Gusa
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

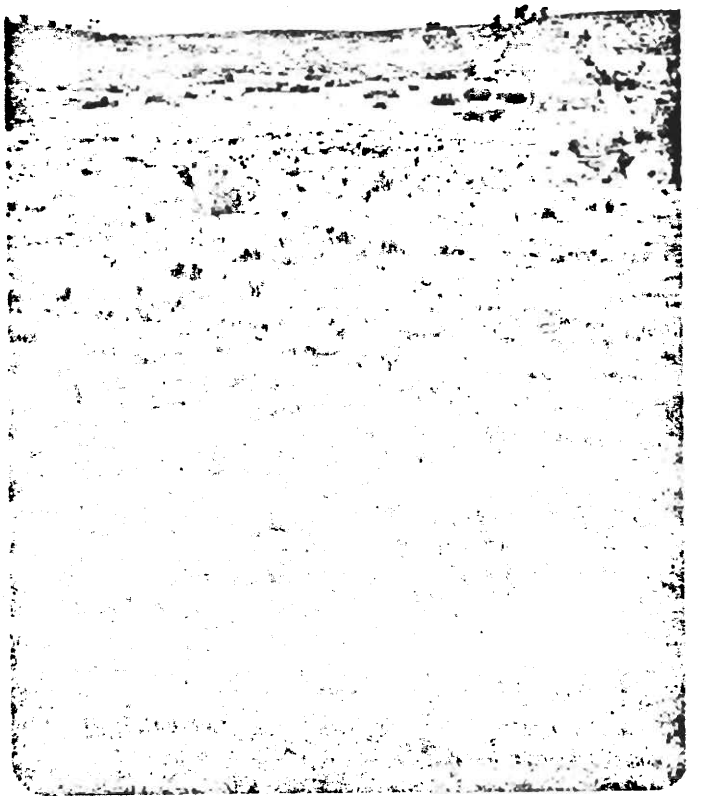
Lysian
Mallow
Buckwheat
Inflated
Cliff Rose
Black Brush
Winter
Prickley Pear
Joshua Tree

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Doc.	Boer	5	IIII	32-64	
Inc.					
Inv.	Gusa	:	☒	13-26	
	Sebr	:	::	5-10	
Rock					
Tot. Doc.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		8		8-16	
Hits Doc. & Inc.					
Tot. Rock					
Tot. Litter					
Bare Ground		42		42-84	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
	-											
Tot.												
C												
Tot.												



Pace Transect #57
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment GRANDWASH HOOKS Date 6-4-84 Transect No. 58
Aerial Photo No. 8-2 Place Interval ___ By JEAN ARMSTRONG - BREWER
Game Mgmt. GCNP Vegetative Type 16 FC Slope 8%
Key Area ___ Soil MU 195 Aspect ___

Location Map:

BEARING S 70 W
SOIL PLOT 8-2-8

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Forage production less than 25 lbs/Acre.

Leaf Measurements (Vigor)

Species	Spot 1	
1	1 1/2	
2	5 1/2	
3	5	
4	4 1/2	
5	4 1/2	
6	3 1/2	
7	4	
8	4	
9	3 1/2	
10	4 1/2	
Tot	40.5	
Ave	4.1	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	0	26	26	26	X¼= 6.5
Inv.	14	60	74	74	X1= 74
Tot.	14	86	100	100	= 67.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 0
Composition 6
Vigor 3
Total 9
Cool Season . . . . . ___
Condition Class . . . VP
Current Trend . . . . →
Trend Indicators ___

SOIL STABILITY

Bare Soil Index 7
Soil Disturbance Factor 10
Total 17
Condition Class . . . . . VP
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 14
Hits, all Rock 10
Litter 2
Bare Soil 74
Total 100
Hits, Dec. + Inc 0
Cool Season ___

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Cora					Cora			
—	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
Litter	—	—	—	—	—	—	Rock	Rock	—
21	22	23	24	26	23	27	28	29	30
Rock	—	—	—	Rock	—	Yuba	—	—	—
31	32	33	34	36	33	37	33	39	40
—	—	—	—	—	—	—	—	—	Rock
41	42	43	44	46	46	47	48	49	50
					Cord			Cord	Cord
—	—	—	—	—	—	—	—	—	—
51	52	53	54	55	56	57	59	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	93	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

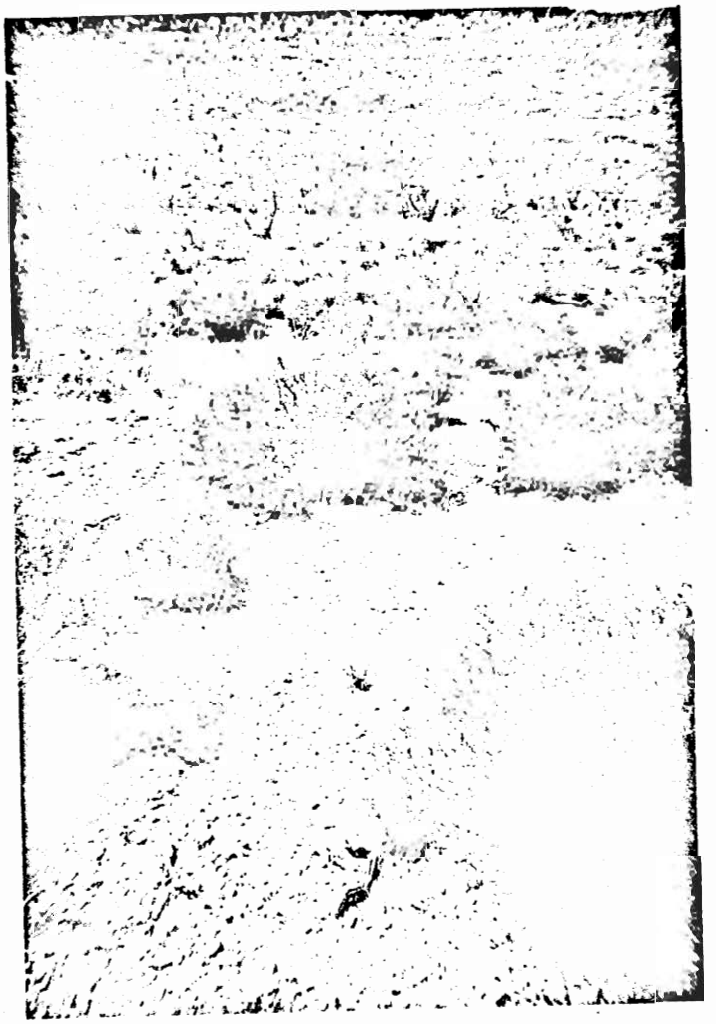
Present
Yuba
Cora
Joshua Tree
Ephedra
Cora
Atco 4-wing
Prickley Pear
Gusa
Oth

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.					
	Spt		𝍸	13-26	
Inv.	Gusa		𝍸	3-6	
	Yuba	•	𝍸	2-4	
	Cholla		𝍸	1-2	
	Joshua	•	𝍸	2-4	
	Cora	1	𝍸𝍸	29-58	All Inv.
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		7		7-14	
Hits Dec. & Inc.					
Tot. Rock		5		5-10	
Tot. Litter		1		1-2	
Bare Ground		37		37-74	
Tot. Cool Season					



Pace Transect #58
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment GRAND WASH HOOK Date 6-4-84 Transect No. 59
Aerial Photo No. 8-2 Place Interval 3 By JEAN ARMSTRONG - BREWER
Game Mgmt. GCNP Vegetative Type 1 FC Slope 9%
Key Area _____ Soil _____ Aspect _____

Location Map:

BERING 540 to Soil Plot 8-2-5

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Open grassland surrounded by dense Cora stands. Production estimated at 150 to 200 lbs/acre, utilization 15 to 20%

Leaf Measurements (Vigor)

Species	Hija	Boer
1	2	3
2	3½	2½
3	2½	3
4	4	3
5	3½	2
6	4	1
7	4	2
8	4	1
9	3	2
10	2½	2½
Tot	33	22
Ave	3.3	2.2

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	28	32	32	X2=64
Inc.	6	9	15	15	X¼=3.75
Inv.	20	33	53	53	X-1=53
Tot.	30	70	100	100	+14.75
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 13
Composition 21
Vigor 2
Total 36
Cool Season . . . . . ____
Condition Class . . . . Poor
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 8
Soil Disturbance Factor 25
Total 33
Condition Class . . . . . Poor
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 30
Hits, all Rock 2
Litter 0
Bare Soil 68
Total 100
Hits, Dec. + Inc 10
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Hija	—	—	—	Hyj	—	—	—	Hij	—
11	12	13	14	15	16	17	18	19	20
									Gora
—	—	—	Hija	Rock					
21	22	23	24	25	26	27	28	29	30
—	—	—	—	—	—	—	Hija	—	
31	32	33	34	35	36	37	38	39	40
—	—	—	Hija	Hija	—	Boer	Hija	—	—
41	42	43	44	45	46	47	48	49	50
Hija	—	—	—	Hija	—	—	Boer	—	Hija
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

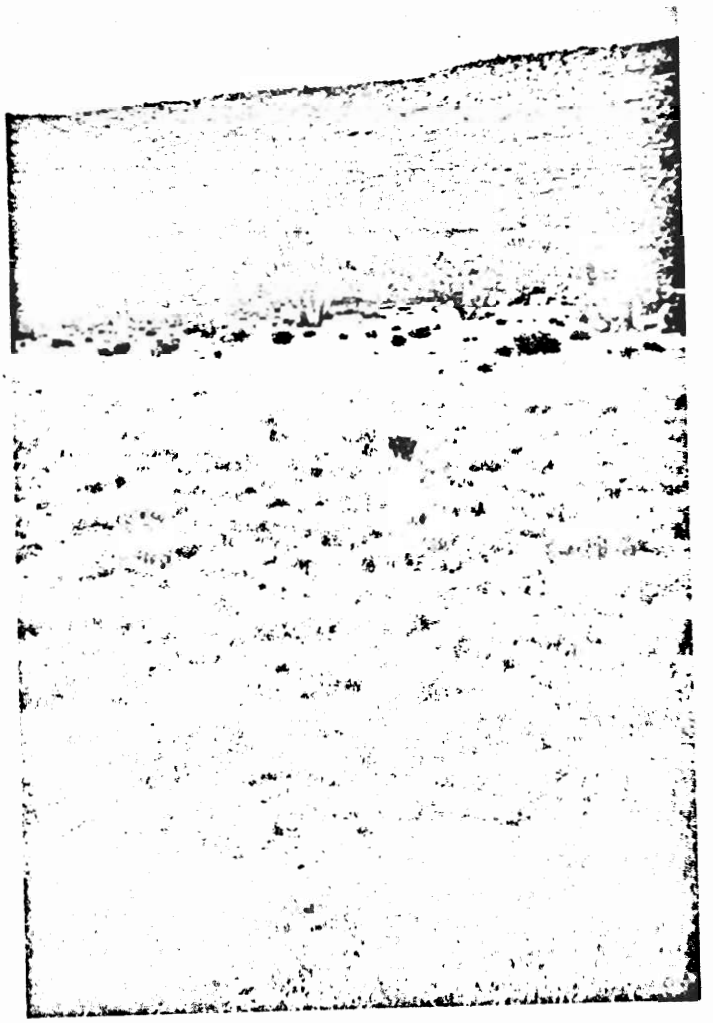
Yucca
BLACKBRUSH Cora
Eriogonium
INFLATION

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	11	𝍸	16-33	
Inc.	Hija	𝍸	𝍸	30-60	15-Inc
Inv.	Gusa			3-6	
	Cora			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		15		15-30	
Hits Dec. & Inc.					
Tot. Rock		1		1-2	
Tot. Litter				0-0	
Bare Ground		34		34-68	
Tot. Cool Season					



Pace Transect #59
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLETEAU Date 6-5-84 Transect No. 60

Aerial Photo No. 14-7 Place Interval ____ By GALEANO

Game Mgmt. ____ Vegetative Type 1/16 NC Slope 25%

Key Area ____ Soil MC 184 Aspect NORTH NE

Location Map: Soil plot 14-7#3

BASAL AREA - Riparian or Aspen

Number or size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Burned AREA.

Leaf Measurements (Vigor)

Species		
1		
2		
3	TO	
4		
5	NOT MEASURED	
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	24	24	24	X2= 48
Inc.	0	18	18	18	X½= 4.5
Inv.	0	58	58	58	X-1= 58
Tot.	0	100	100	100	=5.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 0

Composition 17

Vigor 1

Total 18

Cool Season ..... ____

Condition Class ..... VP

Current Trend ..... →

Trend Indicators ____

SOIL STABILITY

Bare Soil Index 8

Soil Disturbance Factor 20

Total 28

Condition Class ..... POOR

Current Trend ..... →

Summary of Hits

Hits, all Plants 0

Hits, all Rock 30

Litter 2

Bare Soil 68

Total 100

Hits, Dec. + Inc 0

Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	R	R	R	—	—	R	—	—	—
11	12	13	14	15	16	17	18	19	20
				R					
—	—	R	R		—	—	R	—	—
21	22	23	24	25	26	27	28	29	30
—	—	—	—	R	R	—	—	—	—
31	32	33	34	35	36	37	38	39	40
—	—	L	—	R	R	—	—	—	R
41	42	43	44	45	46	47	48	49	50
—	—	—	R	—	R	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Doc.	ATCA.		:	1-2	
	Ovhy		⊠	10-20	
	Boek		:	1-2	
Inc.	Cova		⊠ □	18-36	I-10%
	~~Rhtr.~~		:	2-4	I-10%
	~~Epra~~		:	2-4	
Inv.	Luba.		:	2-4	
	Cuti		::	3-6	
	Lase		⊓	6-12	
	Aris		::	2-4	
	Sphe		::	3-6	
Rock					
Tot. Doc.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		0		0-0	
Hits Dec. & Inc.					
Tot. Rock		15		15-30	
Tot. Litter		1		1-2	
Bare Ground		34		34-68	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment GRAND WASH HOOK Date 6-5-84 Transect No. 61

Aerial Photo No. 8-3 Place Interval ____ By JEAN ARMSTRONG-BREWER

Game Mgmt. GCNP Vegetative Type 16 FC Slope 2%

Survey Area ____ Soil MH 194 Aspect N6E

Location Map:

BEARING N6E
SOIL PLOT 8-3-5

BASAL AREA - Riparian or Aspen

Number or Class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: No perennial grasses obs.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

NONE AVAILABLE

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	2	4	4	X2= 8
Inc.	7	5	12	12	X¼= 3
Inv.	37	47	84	84	X1= 84
Tot.	46	54	100	100	=75
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-85

VEGETATION

Forage Cover Index 12
Composition 5
Vigor 1
Total 18
Cool Season ..... ____
Condition Class .... VP
Current Trend .... →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 17
Soil Disturbance Factor 15
Total 32
Condition Class ..... POOR
Current Trend ..... →

Summary of Hits

Hits, all Plants 46
Hits, all Rock 12
Litter 2
Bare Soil 40
Total 100
Hits, Dec. + Inc 9
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
					Cova		Cova	Cova	Yuba
—	—	—	Rock	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
Cova			EPHE		Gusa		ATca	Cova	
—	Rock	—	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
	Cova		Cova				Cova		Cova
—	—	—	—	—	—	—	—	Rock	—
31	32	33	34	35	36	37	38	39	40
			Cova	Cova			Cova	Aqut	
Rock	Litter	Rock	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
Yuba	Yuba	Cova	Cova	Gusa					
—	—	—	—	—	—	—	—	Rock	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

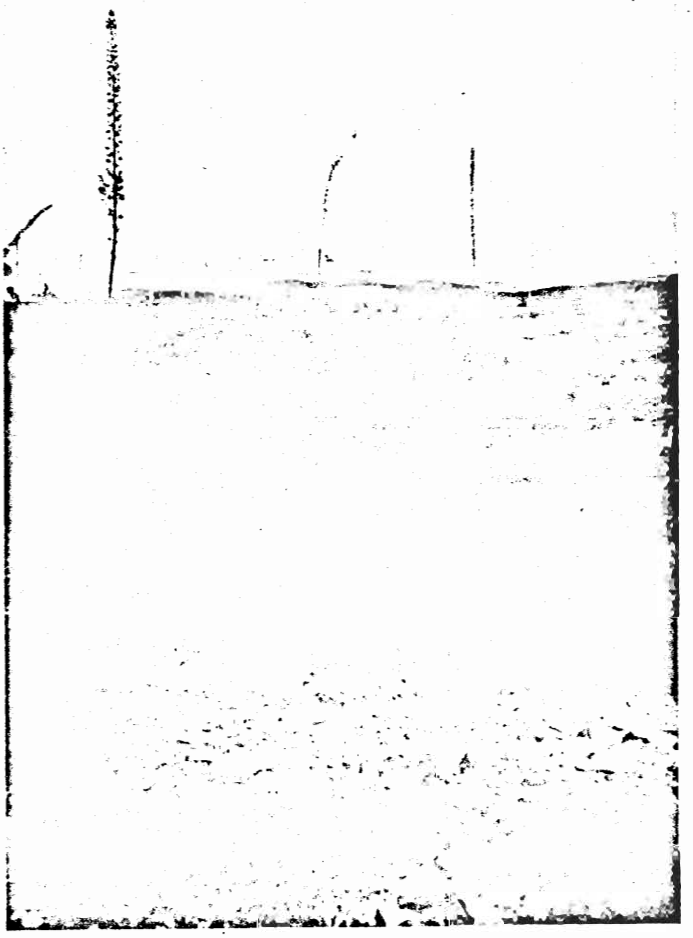
Present
OPUS
Comc
EBOG

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	ATca	.		1-2	
	Come		.	1-2	
		Shrtg=I			
Inc.	Cova	M..	M.	30-60	I-10%
	EPHE	.		1-2	
Inv.	ENFA		.	1-2	
	Yuba	.	.	2-4	
	SPHA		.	2-4	
	Gusa	..	..	6-12	
	Aqut	..	..	6-12	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		23		23-46	
Hits Dec. & Inc.					
Tot. Rock		6		6-12	
Tot. Litter		1		1-2	
Bare Ground		20		20-40	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #61
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment: Grand Wash Hook Date: 6/5/84 Transect No.: 62
Aerial Photo No.: B-3 Place Interval: 3 By: J. Armstrong - D. Brewer
Game Mgmt.: GCNP Vegetative Type: 16 NC Slope: 24
Key Area: Soil: M.U. 184 Aspect: S64°W

Location Map:

Bearing S50°E
Soil plot B-3#4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Estimated production @ 50 to 75 lbs/Acre. Although transect scores fair this is inclusion in NC unit.

Leaf Measurements (Vigor)

Species	Bocu	Spfl
1	8	5
2	7	4½
3	7½	4½
4	8½	3½
5	8	4
6	7	4½
7	5	7
8	8	5
9	8½	4½
10	6	5
Tot	73.5	47.5
Ave	7.4	4.8

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	8	30	38	38	X2= 76
Inc.	6	22	28	28	X¼= 7
Inv.	2	32	34	34	X-1= -34
Tot.	16	84	100	100	+49
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4/81

VEGETATION

Forage Cover Index: 19
Composition: 27
Vigor: 5
Total: 51
Cool Season:
Condition Class: Fair
Current Trend: →
Trend Indicators:

SOIL STABILITY

Bare Soil Index: 16
Soil Disturbance Factor: 30
Total: 46
Condition Class: Fair
Current Trend: →

Summary of Hits

Hits, all Plants: 16
Hits, all Rock: 32
Litter: 8
Bare Soil: 44
Total: 100
Hits, Dec. + Inc: 14
Cool Season:

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	Rock	—	Rock	—	—	—
11	12	13	14	15	16	17	18	19	20
Come									
Come	—	liHer	rock	—	liHer	Bocu	Rock	liHer	rock
21	22	23	24	25	26	27	28	29	30
				CoeA					
liHer	rock	—	—	—	rock	rock	EPOG	rock	rock
31	32	33	34	35	36	37	38	39	40
					CorA	CorA			
—	—	—	Rock	Bocu	—	—	—	Rock	—
41	42	43	44	45	46	47	48	49	50
—	Bocu	—	rock	rock	—	—	rock	—	Rock
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

Present

Yucc
Come

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Bocu	::	⊠::	16-32	
	Come	:	::	3-6	
Inc.	EPHE		::	3-6	
	Spfl		⊓	7-14	
	Coea	::	·	4-8	T-10%
Inv.	SPHA		⊐	7-14	
	GUSA		⊓	7-14	
	EPOG	·	·	2-4	
	ENFA		·	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		8		8-16	
Hits Dec. & Inc.					
Tot. Rock		16		16-32	
Tot. Litter		9		4-8	
Bare Ground		22		22-44	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #62
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment GRANDWASH HOOK Date 6-5-84 Transect No. 63

Aerial Photo No. 8-2 Place Interval 3 By JEAD ARMSTRONG D BREWER

Game Mgmt. GCNP Vegetative Type 16 NC Slope 34°

Key Area _____ Soil MU 184 Aspect N10W

Location Map:

BEARING S60W
SOIL PLOT 8-246

BASAL AREA - Riparian or Aspen

Number or size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: no significant erosion. Although this transect rated fair it is inclusion in NC unit.

Leaf Measurements (Vigor)

Species	Spec	
1	2	
2	3	
3	4	
4	4	
5	4	
6	3	
7	2	
8	1	
9	3	
10	4	
Tot	30	
Ave	3.0	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	8	8	16	16	X2=32
Inc.	10	36	46	46	X¼=11.5
Inv.	18	20	38	38	X1=38
Tot.	36	64	100	100	+5.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 24
Composition 19
Vigor 2
Total 45
Cool Season ____
Condition Class FAIR
Current Trend →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 20
Soil Disturbance Factor 15
Total 35
Condition Class POOR
Current Trend →

Summary of Hits

Hits, all Plants 36
Hits, all Rock 32
Litter 0
Bare Soil 32
Total 100
Hits, Dec. + Inc 18
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Atca					Mosc			
—		—	Rock	—	—		—	—	Rock
11	12	13	14	15	16	17	18	19	20
Cora	Cora				Cora			Cora	Ephe
		Rock	Rock	Stsp		Rock	—		
21	22	23	24	25	26	27	28	29	30
	Cora			Cora		Cora		Come'	
—		—	Rock		—		Rock	—	Rock
31	32	33	34	35	36	37	38	39	40
						Cora			Cora
Rock	Rock	—	Rock	—	—		—	—	
41	42	43	44	45	46	47	48	49	50
	Cora	Cora	Come'			Fapa			
Rock			L	Rock	Rock	L	Rock	—	Rock
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Yubr
GUTI
Somo?

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Atca	•	•	2 - 4	
	Sihy.	:	•	1 - 2	
	Fapa	:.	-	2 - 4	
	Come		•	3 - 6	
Inc.	Spcr		:.	5 - 10	
	6-I				
	Cora	⊠ •	⁝.	17 - 34	I = 10%
	Ephe	:		1 - 2	
	Stsp	•	⊠•	12 - 24	
Inv.	Mosc	•	:	3 - 6	
	Mallons		:	2 - 4	
	OPUN		•	1 - 2	
	Yuba		•	1 - 2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		18		18 - 36	
Hits Dec. & Inc.					
Tot. Rock		16		16 - 32	
Tot. Litter		0		0	
Bare Ground		16		16 - 32	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment GRAND WASH HOOK Date 6-5-84 Transect No. 64

Aerial Photo No. 10-3 Place Interval 3 By JEAN ARMSTRONG - KREUGER

Game Mgmt. GCNP Vegetative Type 16 FC Slope 11%

Key Area _____ Soil M.U.195 Aspect N38E

Location Map:

BEARING 540W
SOIL PLOT 10-3-C

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: production less than 85 lbs/acre. Although this transects rates poor it is in close proximenty to grassland ecosystem and is being thrown into it.

Leaf Measurements (Vigor)

Species	Sper	
1	2	
2	2	
3	3	
4	4	
5	6	
6	3	
7	2	
8	1	
9	2	
10	2	
Tot	27	
Ave	2.7	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	6	10	10	X2= 20
Inc.	2	22	24	24	X¼= 6
Inv.	26	40	66	66	X-1=66
Tot.	32	68	100	100	-40
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 13
Composition 13
Vigor 2
Total 28
Cool Season . . . . . ____
Condition Class . . . . POOR
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 12
Soil Disturbance Factor 20
Total 32
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 32
Hits, all Rock 8
Litter 4
Bare Soil 56
Total 100
Hits, Dec. + Inc 6
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
						Cora			
—	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
			Cora	Cora		Litter			Cora
—	—	—	—	—	—	—	—	—	
21	22	23	24	25	26	27	28	29	30
	Cora				Cora				
—	—	—	—	—	—	—	—	—	Litter
31	32	33	34	35	36	37	38	39	40
Cora	Cora	Cora					1 Tree		Atca
			Rock	—	—	Rock		Rock	
41	42	43	44	45	46	47	48	49	50
Atca	Cora	—							
		—	Rock	—	opun	—	—	Cora	Sper
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

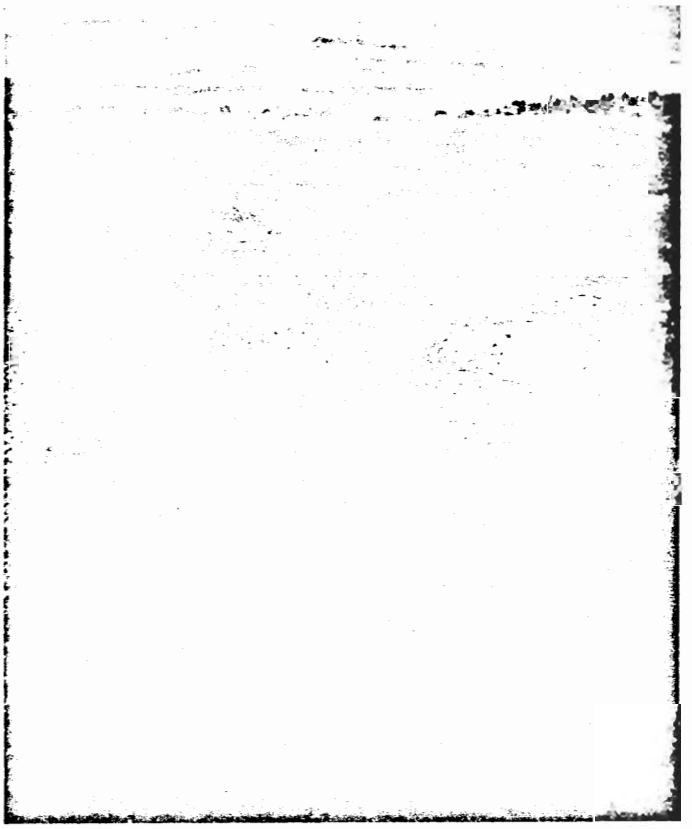
	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		:	3-6	
	Atca	:		2-4	
Inc.	Sper	.	⊠	12-24	
Inv.	OPUN	.	:	3-6	
	Gusa		:	2-4	
	Yuba		.	1-2	
	Cora	⊠	⊠ :	36-52	100% Inv.
	Ybr	.		1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants				16-32	
Hits Dec. & Inc.	16				
Tot. Rock	4			4-8	
Tot. Litter	2			2-4	
Bare Ground	28			28-56	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #64
Sanup Plateau.

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANDIP PLATEAU Date 6-16-84 Transect No. 65

Aerial Photo No. 12-11 Place Interval 3 By GALEANO

Game Mgmt. _____ Vegetative Type 1 FC Slope 2

Key Area _____ Soil MU 182 Aspect NE

Location Map:

BEARING
SOIL PLOT 12-11-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species	Orhy	
1	4	
2	3	
3	5	
4	6	
5	7	
6	5	
7	5	
8	6	
9	5	
10	4	
Tot	50	
Ave	5.0	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	8	14	22	22	X2=44
Inc.	0	0	0	0	X½=0
Inv.	32	46	78	78	X-1=78
Tot.	40	60	100	100	=34
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 11
Composition 12
Vigor 6
Total 29
Cool Season . . . . .
Condition Class . . . . POOR
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 13
Soil Disturbance Factor 25
Total 38
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 40
Hits, all Rock 0
Litter 8
Bare Soil 52
Total 100
Hits, Dec. + Inc 8
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Guti					Guti	Guti	Yucca		
Guti	—	—	L	Leer	—	—	Prea	—	orhy
11	12	13	14	15	16	17	18	19	20
Arstida	L	Boer	heer	—	—	—	—	—	—
21	22	23	24	25	23	27	28	29	30
							Cora		
—	—	—	—	Orhy	L	L	—	—	—
31	32	33	34	35	36	37	38	39	40
			Guti		Guti				Guti
Chvi	—	—	—	—	Guti	—	—	—	—
41	42	43	44	45	46	47	48	40	50
Guti	Guti	Cora		Atca	Guti				
Guti	Guti	—	—	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	63	69	70
71	72	73	74	75	78	77	78	79	80
81	82	83	84	85	88	87	88	89	90
91	92	93	94	95	93	97	93	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

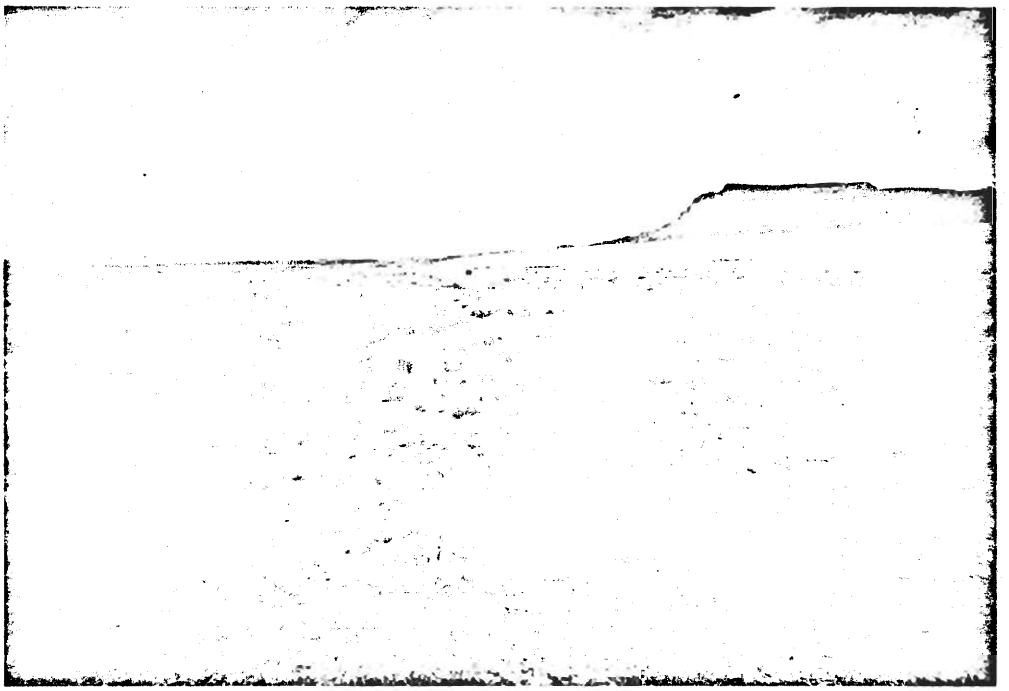
	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Telly	Total	Allowable
Dec.	Orhy	••	••	5-10	
	Boer	•	••	4-8	
	Sihy		•	1-2	
	Atca	•		1-2	
Inc.					
Inv.	Guti	⊠	⊠ T.	25-50	
	Leer	••	••	7-14	
	Yuba	•		1-2	
	Cora	••		2-4	
	Chvi	•		1-2	
	Sebr		•	1-2	
	ARIS	•	•	2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		20		20-40	
Hits Dec. & Inc.					
Tot. Rock		Ø		0-0	
Tot. Litter		2		4-8	
Bare Ground		26		26-52	
Tot. Cool Season					



Pace Transect #65
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment GRAND WASH HOOK Date 6-6-84 Transect No. 66
Aerial Photo No. 10-3 Place Interval 2 By JEAN ARMSTRONG D BREWER
Game Mgmt. _____ Vegetative Type 16 FC Slope 7%
Key Area _____ Soil MU 194 Aspect _____

Location Map:

BEARING DUCE NORTH
SOIL PLOT 10-3-8

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: very little perennial forage, limit use to 20 percent

Leaf Measurements (Vigor)

Species	Poor	
1	4	
2	4	
3	3	
4	2	
5	4	
6	4	
7	3	
8	3	
9	4	
10	2	
Tot	33	
Ave	3.3	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	8	30	38	38	X2= 76
Inc.	2	8	10	10	X¼= 2.5
Inv.	10	42	52	52	X.1=5.2
Tot.	20	80	100	100	+26.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 13
Composition 23
Vigor 3
Total 39
Cool Season . . . . . _____
Condition Class . . . . Poor
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 9
Soil Disturbance Factor 20
Total 29
Condition Class . . . . . Poor
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 28
Hits, all Rock 12
Litter 4
Bare Soil 64
Total 100
Hits, Dec. + Inc 10
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
							Comp'		
—	—	Rock	—	—	—	—		—	—
11	12	13	14	15	16	17	18	19	20
Cora	Litter						Comp'		
		—	OPUN	—	—	—		—	—
21	22	23	24	25	26	27	28	29	30
	Yuba			Comp'					
Rock		—	—		—	Rock	Rock	—	—
31	32	33	34	35	36	37	38	39	40
	Comp'								
Rock		OPUN	Litter	Hija	—	—	Rock	—	—
41	42	43	44	45	46	47	48	49	50
							Cora		
—	—	—	—	—	—	—		—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

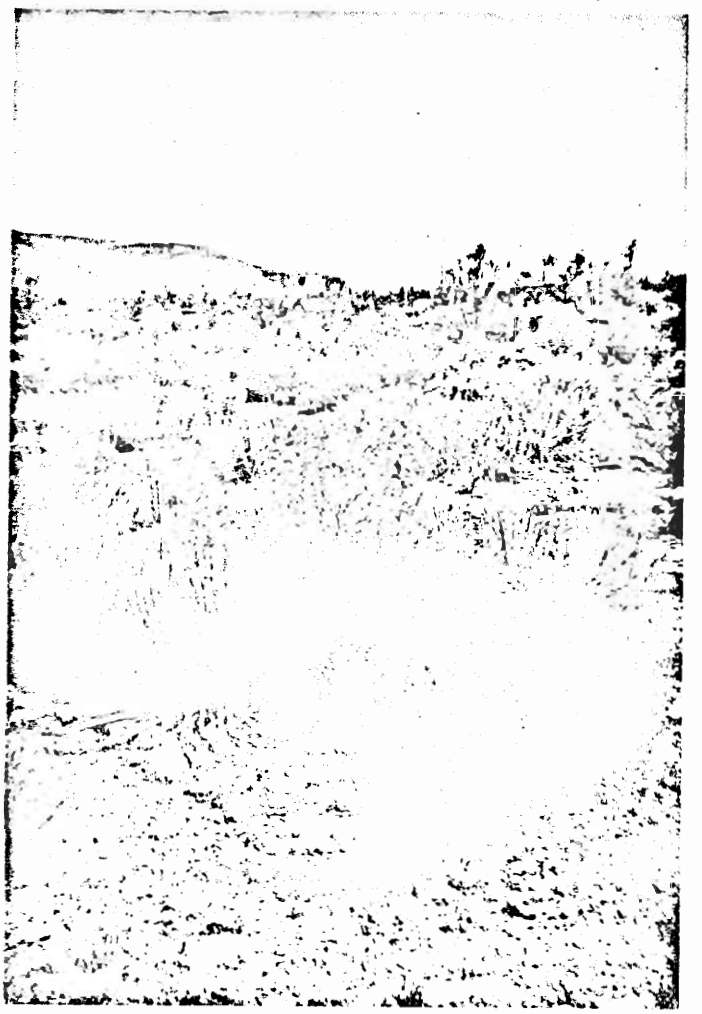
	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavailable
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		IIII	9-18	
	Comp'	::	::	10-20	
Inc.	Spar		::	4-8	
	Hija	•		1-2	
Inv.	Cora	::	::	7-14	
	Yuba	•	::	5-10	
	OPUN	:		2-4	
	EPHE				
	CHOL		::	3-6	
	Gusa		:	2-4	
Rock	Aust		::	4-8	
	SPHA		:	2-4	
	Leer		•	1-2	
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		10		10-20	
Hits Dec. & Inc.					
Tot. Rock		6		6-12	
Tot. Litter		2		2-4	
Bare Ground		32		32-64	
Tot. Cool Season					



Pace Transect #66
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment GRAND WASH HOOK Date 6-6-84 Transect No. 67
Aerial Photo No. 10-3 Place Interval 3 By JEAN ARMSTRONG & DREWER
Name Mgmt. GCNP Vegetative Type 1 FS Slope
Key Area Soil MU 195 Aspect

Location Map:

BEARING N 70 W
SOIL PLOT 10-3-7

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Open grassland with Yucca scattered. Estimated production 150-200 lbs/acre.

Leaf Measurements (Vigor)

Species	Boer	
1	4	
2	4	
3	3½	
4	3	
5	3	
6	3½	
7	5	
8	3½	
9	4	
10	4½	
Tot	38	
Ave	3.8	

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	32	46	78	78	X2=156
Inc.	0	0	0	0	X½=0
Inv.	8	14	22	22	X1=22
Tot.	40	60	100	100	+134
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 36
Composition 42
Vigor 3
Total 81
Cool Season
Condition Class EXCELLENT
Current Trend →
Trend Indicators

SOIL STABILITY

Bare Soil Index 11
Soil Disturbance Factor 30
Total 41
Condition Class FAIR
Current Trend →

Summary of Hits

Hits, all Plants 40
Hits, all Rock 0
Litter 0
Bare Soil 60
Total 100
Hits, Dec. + Inc 32
Cool Season

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	Boer	—	—	—	Boer	Boer	Boer	Boer	—
11	12	13	14	15	16	17	18	19	20
						J.Tree			
—	Boer	Gusa	—	Boer	Boer		Boer	—	—
21	22	23	24	25	26	27	28	29	30
Boer	—	—	—	—	Boer	—	Boer	—	Boer
31	32	33	34	35	36	37	38	39	40
Boer	Boer	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
						Gusa			
—	SPHA	—	—	Boer	—		—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Hijg
Coeg
OPUN

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	15	IIII :	39-78	
Inc.					
Inv.	Gusa	:	L	8-16	
	J.Tree	:		1-2	
	SPHA	:	:	2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		20		20-40	
Hits Dec. & Inc.					
Tot. Rock		0		0-0	
Tot. Litter		0		0-0	
Bare Ground		30-		30-60	
Tot. Cool Season					

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment GRAND WASH HOOK Date 6-6-84 Transect No. 68
Aerial Photo No. 8-2-7 Place Interval 3 By JEAN ARMSTRONG D. BREWER
Game Mgmt. GCNP Vegetative Type 16 FC Slope 8%
Key Area _____ Soil MU 195 Aspect N 58 E

Location Map:

Bearing S 75° W
Soil plot 8-2 #7

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Few disirable grass species on the unit Slight erosion not as you approach scarp slope. Shallow soils, Although transects rates VP felt that unit as whole can support grazing. This is do to it being essentially deep soils.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	10	
5		
6		
7		
8		
9		
10	10	
Tot	20	
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	3	7	10	10	X¼=2.5
Inv.	25	65	90	90	X-1= 90
Tot.	28	72	100	100	= 87.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 4
Composition 2
Vigor 1
Total 7
Cool Season _____
Condition Class VP
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 12
Soil Disturbance Factor 10
Total 22
Condition Class POOR
Current Trend _____

Summary of Hits

Hits, all Plants 28
Hits, all Rock 12
Litter 2
Bare Soil 58
Total 100
Hits, Dec. + Inc 3
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Cora	Cora		Cora	Cora	Cora	
—	—	Rock			—				—
11	12	13	14	15	16	17	18	19	20
Cora						Cora			
	Rock	—	Rock	Rock	Rock		Litter	—	—
21	22	23	24	25	26	27	28	29	30
						Yuba			
—	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
	Cora				Cora				Cora
—	—	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
		Yuba		CHOL				Cora	
—	—	—	—	—	—	—	—	—	Rock
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
SPOR
Bree
EPHE

Shallow soils, hence Corn is still 10% I.

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
		3-I			
Inc.	Cora	[illegible]	[illegible]	39-78	I-10% INV
Inv.	CHOL	•	•	2-4	
	Yuba	:	:	7-14	
	J. Tree		•	1-2	
	OPUN		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		14		14-28	
Hits Dec. & Inc.					
Tot. Rock		6		6-12	
Tot. Litter		1		1-2	
Bare Ground		29		29-58	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #68
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 6-6-84 Transect No. 69

Aerial Photo No. 9-5 Place Interval 3 By JEAN ARMSTRONG & BREWER

Game Mgmt. GCNP Vegetative Type 16 NC Slope

Key Area Soil MU 183 Aspect

Location Map:

BEARING N 20W
SOIL PLOT 9-5-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Typical Coeg site with a complete lack of available forage. NC classification due to lack of forage & shallow soils.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	NOTHING TO MEASURE	
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 4
Inc.	3	19	22	22	X¼=5.5
Inv.	27	49	76	76	X-1= 76
Tot.	30	70	100	100	-66.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 4
Composition 6
Vigor 1
Total 11
Cool Season
Condition Class VP
Current Trend →
Trend Indicators

SOIL STABILITY

Bare Soil Index 10
Soil Disturbance Factor 10
Total 20
Condition Class VP
Current Trend →

Summary of Hits

Hits, all Plants 30
Hits, all Rock 6
Litter 2
Bare Soil 62
Total 100
Hits, Dec. + Inc 3
Cool Season

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
				Cora				Cora	
Rock	—	Litter	—	R	—	—	—	R	—
11	12	13	14	15	16	17	18	19	20
		ENCE	Cora	ENCE					Cora
—	—				—	Yuba	—	—	
21	22	23	24	25	26	27	28	29	30
Cora						Cora	Cora		
—	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
				EPHE					
—	—	—	—	—	—	—	—	Rock	—
41	42	43	44	45	46	47	48	49	50
	Cora		Gusa			Cora			Cora
—	—	—	—	Rock	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present.

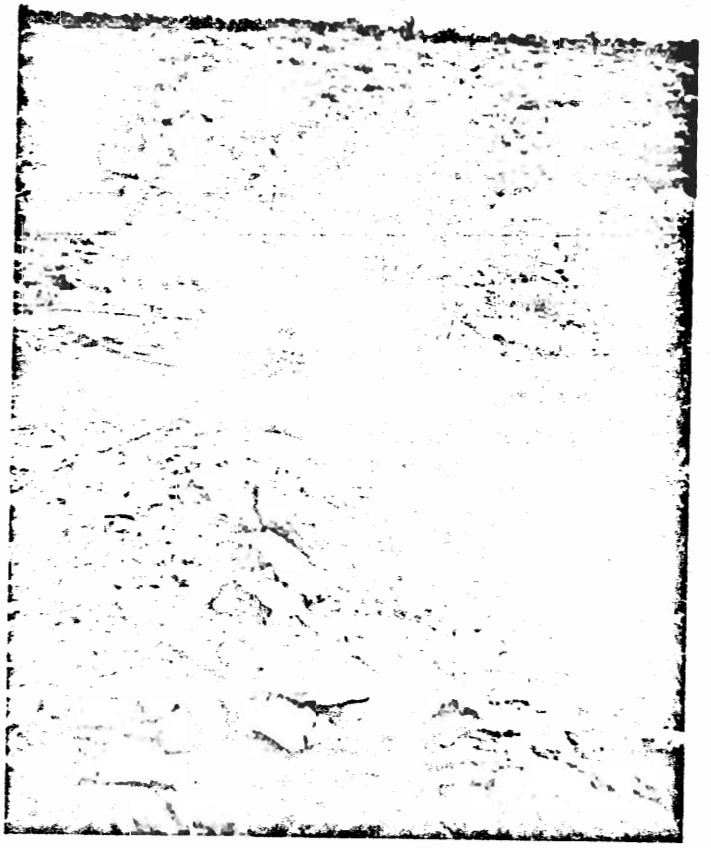
ThmO

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	STEO		•	1-2	
		3=3			
Inc.	Cora	5	⊠⊠::	34-68	10%I→IN
	EPHE	•	::	6-12	
Inv.	Yuba	•	:	3-6	
(Enda)	ENCE	:		2-4	
	CHOL		•	1-2	
	Gusa	•	•	2-4	
	ECHI²		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		15		15-30	
Hits Dec. & Inc.					
Tot. Rock		3		3-6	
Tot. Litter		1		1-2	
Bare Ground		31		31-62	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #69
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWUP PLATEAU Date 6-6-84 Transect No. 70

Aerial Photo No. 9-6 Place Interval 3 By JEAN ARMSTRONG - BREWER

Game Mgmt. GCNP Vegatative Type 1 RC Slope

Key Area Soil MU 182 Aspect

Location Map:

BEARING S 20 E
SOIL PLOT 9-6-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated at 50 to 75 lbs/acre. Utilization high in this area.

Leaf Measurements (Vigor)

Species	Hija	
1	4	
2	4 1/2	
3	6 1/2	
4	8 1/2	
5	4 1/2	
6	7	
7	5 1/2	
8	4	
9	5	
10	6 1/2	
Tot	56	
Ave	5.6	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	6	18	24	24	X2=48
Inc.	0	15	15	15	X½=3.75
Inv.	12	49	61	61	X1=61
Tot.	18	82	100	100	-9.25
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 8
Composition 16
Vigor 6
Total 30
Cool Season
Condition Class POOR
Current Trend →
Trend Indicators

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 20
Total 25
Condition Class POOR
Current Trend →

Summary of Hits

Hits, all Plants 18
Hits, all Rock 2
Litter 2
Bare Soil 80
Total 100
Hits, Dec. + Inc 6
Cool Season

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	—	ARIS'
11	12	13	14	15	16	17	18	19	20
	Lyci								
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
—	—	—	Litter	—	—	—	—	Gusa	—
31	32	33	34	35	36	37	38	39	40
		Lyci							
—	ARIS	Litter	—	—	Orhy	Boer	Boer	—	—
41	42	43	44	45	46	47	48	49	50
—	—	—	—	—	Arar	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

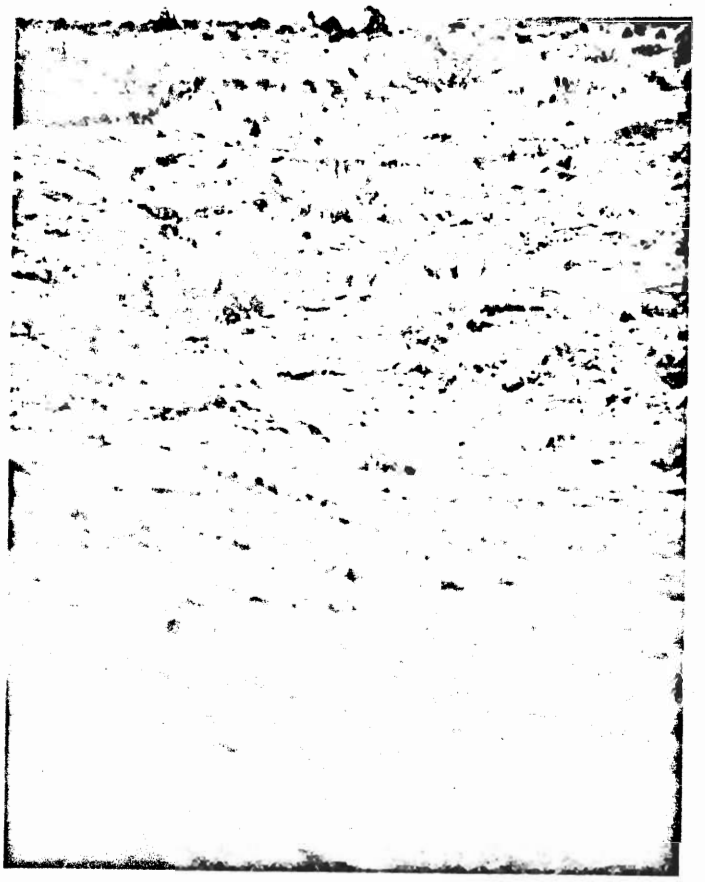
Present
Atcq
CHOL

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	:	:	4-8	
	Orhy	•	⊏	8-16	
Inc.	Hija		⊠:·	13-26	I-15→INV
Inv.	Leer		::	4-8	
	SPHA		::	4-8	
	GUTI	•	⊏	8-16	
	Lyci	:	•	3-6	
	UNK#2		•	1-2	
	ARIS	:·	:·	5-10	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		9		9-18	
Hits Dec. & Inc.					
Tot. Rock		Ø		0-0	
Tot. Litter		1		1-2	
Bare Ground		40		40-80	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #70
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-6-84 Transect No. 71

Aerial Photo No. 9-6 Place Interval 3 By JEAN ARMSTRONG - D. BREWER

Game Mgmt. _____ Vegetative Type .. 16 PC Slope _____

Key Area _____ Soil MLL 178 Aspect _____

Location Map:

BEARING N 40 E
SOIL PIT 9-6-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	10	
5	1	
6	VETHUM	
7	VEPIS	
8	MEPIS	
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	6	8	14	14	X½=3.5
Inv.	18	68	86	86	X 1= 86
Tot.	24	76	100	100	=82.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 9-81

VEGETATION

Forage Cover Index 8
Composition 5
Vigor 1
Total 12
Cool Season .....
Condition Class .... VP
Current Trend .... →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 8
Soil Disturbance Factor 20
Total 28
Condition Class ..... POOR
Current Trend ..... →

Summary of Hits

Hits, all Plants 24
Hits, all Rock 8
Litter 0
Bare Soil 68
Total 100
Hits, Dec. + Inc 6
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
					Cora			Cora	
	—	—	—	—	—	—	—	—	Rock
11	12	13	14	15	16	17	18	19	20
		Cora				Cora		Cora	Cora
—	Rock	—	—	—	—	—	—		
21	22	23	24	25	26	27	28	29	30
	Cora								Cora
—	—	—	—	—	—	Rock	Rock	—	
31	32	33	34	35	36	37	38	39	40
Cora	—								
	—	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
	EPHE				—	CORA		Cora	
—		—	—	—	—		—		—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

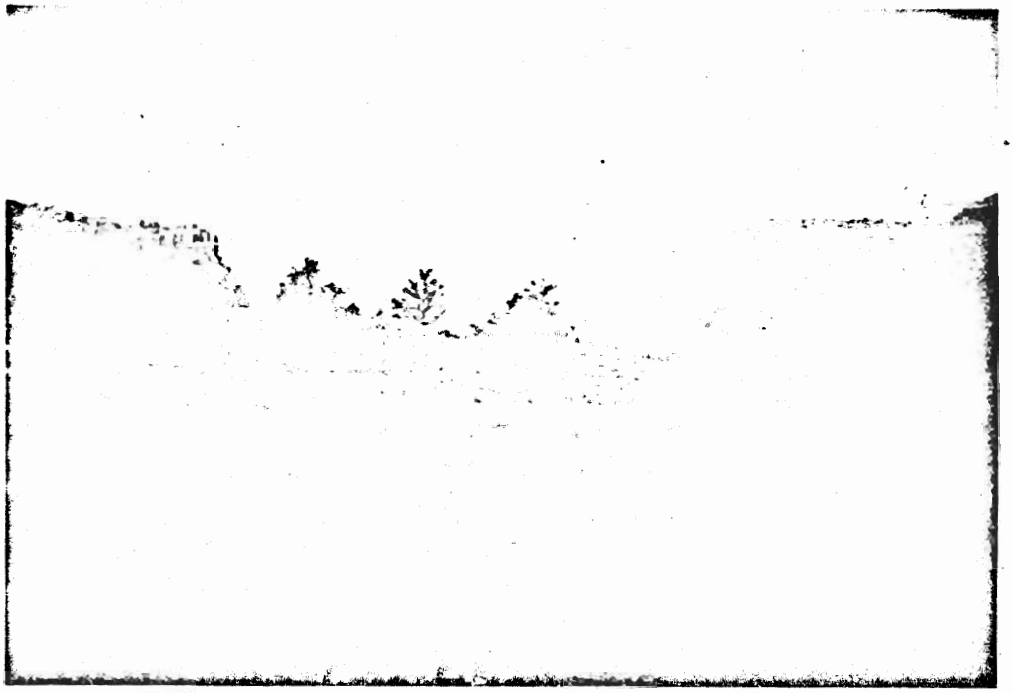
Present
Thmo
Agut
CHOL

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
		2=J			
Inc.	Cora	☒	☒☒☒	8:46-92	10%J
	EPHE			2-4	
Inv.	Yuba		:	2-4	
	CHOL				
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		12		12-24	
Hits Dec. & Inc.					
Tot. Rock		4		4-8	
Tot. Litter		Ø		0-0	
Bare Ground		34		34-68	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #71
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 6-7-84 Transect No. 7C

Aerial Photo No. 7-6 Place Interval 3 By JERRY ARMSTRONG - BREWER

Game Mgmt. GCNP Vegetative Type 1 FC Slope

Key Area Soil MU 192 Aspect

Location Map:

BEARING DUE SOUTH
SOIL PLOT 7-6-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.095
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Heavey Utilization near pit, drops off At end of transect.

Leaf Measurements (Vigor)

Species	Hija	Boer
1	4	3
2	5½	1½
3	7	2
4	10	1½
5	6½	3
6	10	3
7	6½	3½
8	5	2
9	11½	1½
10	8	2½
Tot	74	23.5
Ave	7.4	2.4

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	22	26	26	X2=52
Inc.	6	25	31	31	X¼=7.75
Inv.	8	35	43	43	X.15=6.45
Tot.	18	82	100	100	+16.75
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 13
Composition 21
Vigor 5
Total 39
Cool Season
Condition Class POOR
Current Trend →
Trend Indicators

SOIL STABILITY

Bare Soil Index 6
Soil Disturbance Factor 30
Total 36
Condition Class POOR
Current Trend →

Summary of Hits

Hits, all Plants 18
Hits, all Rock 0
Litter 4
Bare Soil 78
Total 100
Hits, Dec. + Inc 10
Cool Season

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	Boer	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
									Gusa
Sper	Boer	Litter	Hija	—	—	—	—	—	
21	22	23	24	25	26	27	28	29	30
					JUNI	→			Gusa
—	—	—	—	—	Litter	Litter	—	—	
31	32	33	34	35	36	37	38	39	40
—	—	—	—	—	—	—	Litter	Sper	—
41	42	43	44	45	46	47	48	49	50
—	—	—	—	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY FIVE CLASSIFICATION AREAS

	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole,		
	Preferred		Nonpreferred			Mature	Young
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

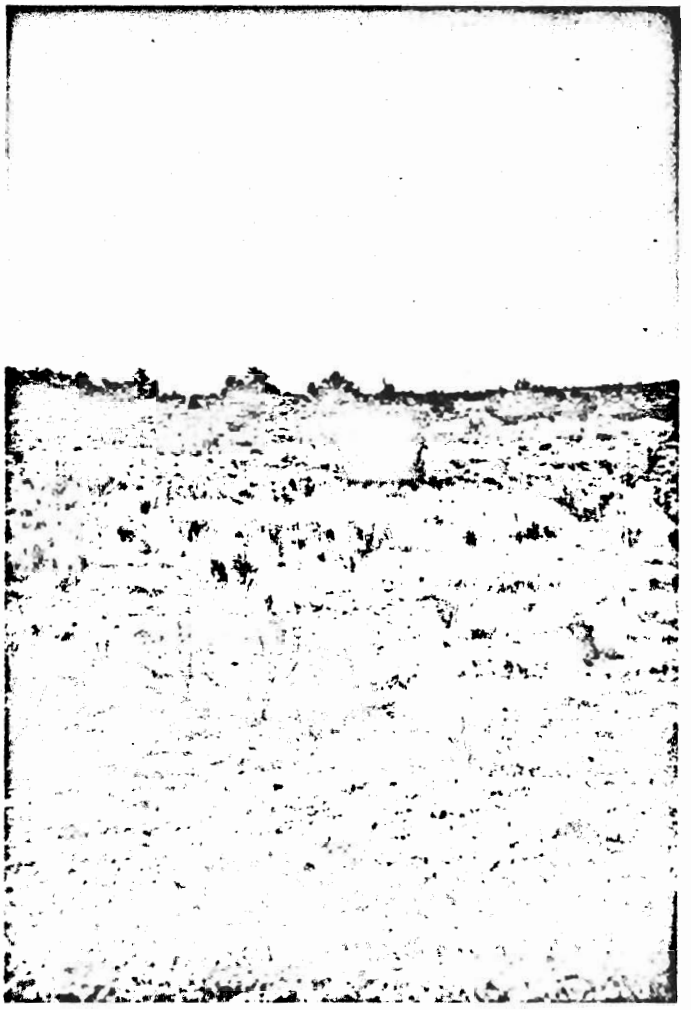
Present
CHOL
Corq
OPUN

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	:	⊠·	13-26	
Inc.	Hija	· (I)	I	9-18	I-15→INV
	Sper	:	I·	8-16	
Inv.	Mallow		:	3-6	
	Gusa	:	⊠·	13-26	
	JUNI	:		2-4	
LEER	Aster	:	·	1-2	
	ARIS		·	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		9		9-18	
Hits Dec. & Inc.					
Tot. Rock		—		0-0	
Tot. Litter		2		2-4	
Bare Ground		39		39-78	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #72
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWUP PLATEAU Date 6-7-84 Transect No. 73

Aerial Photo No. 6-3 Place Interval 3 By JEAN ARMSTRONG D BREWER

Game Mgmt. GCNP Vegetative Type 1 FC Slope

Key Area Soil MU 192 Aspect

Location Map:

BEARING S80E
SOIL PLOT 6-3-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Utilization heavey in this bottom. Four foot gully inventoried in bottom of drainage. Estimated production at 100lbs/Acre.

Leaf Measurements (Vigor)

Species	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
Tot	
Ave	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	10	12	12	X2=24
Inc.	2	12	14	14	X¼=3.5
Inv.	14	60	74	74	X1=74
Tot.	82	82	100	100	=46.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 10
Vigor 1
Total 16
Cool Season
Condition Class VP
Current Trend →
Trend Indicators

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 10
Total 15
Condition Class VP
Current Trend →

Summary of Hits

Hits, all Plants 18
Hits, all Rock 0
Litter 0
Bare Soil 82
Total 100
Hits, Dec. + Inc 4
Cool Season

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	Sper	—	—	—	—	ARIS
11	12	13	14	15	16	17	18	19	20
						Gusa			
—	—	—	—	—	—	Litter	—	—	Gusa
21	22	23	24	25	26	27	28	29	30
—	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
								Gusa	
—	—	Boer	—	Aris	—	—	—	Litter	—
41	42	43	44	45	46	47	48	49	50
								Gusa	
—	—	—	—	—	—	—	—		Gusa
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS · BROWSED · ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
LYC1

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	•	::	5-10	
	Atsa		•	1-2	
Inc.	Hija		:	2-4	
	Sper	•	::	5-10	
Inv.					
	Oak Shrub #1				
	Gusa	1:	⊠ ☐	23-46	
	SPHA		⠇	6-12	
	ARIS	••	⠇	8-16	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		9		9-18	
Hits Dec. & Inc.					
Tot. Rock		∅		0-0	
Tot. Litter		∅		0-0	
Bare Ground		41		41-82	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Od.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #73
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SALMA PLATEAU Date 6-7-84 Transect No. 74

Aerial Photo No. 6-3 Place Interval 3 By JOHN ARMSTRONG - D BREWER

Game Mgmt. _____ Vegetative Type 1 FC Slope _____

Key Area _____ Soil MU 192 Aspect _____

Location Map:

Bearing: N80°W

Soil Plot 6-3#2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Grasses utilized to 1½ above ground, vigor measurements impossible to do with utilization so high. Estimated production 25 to 50 lbs/acre.

Leaf Measurements (Vigor)

Species		
1		
2	10	
3		
4		
5	NO TWIGS	
6		
7		
8	NO TWIGS	
9		
10	NO TWIGS	
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	38	42	42	X2= 84
Inc.	0	14	14	14	X½= 3.5
Inv.	4	40	42	42	X-FC= 84
Tot.	8	92	100	100	+ 3.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5

Composition 26

Vigor 1

Total 32

Cool Season _____

Condition Class POOR

Current Trend →

Trend Indicators _____

SOIL STABILITY

Bare Soil Index 3

Soil Disturbance Factor 15

Total 18

Condition Class VP

Current Trend →

Summary of Hits

Hits, all Plants 8

Hits, all Rock 0

Litter 2

Bare Soil 90

Total 100

Hits, Dec. + Inc 4

Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
						Gusa			
—	—	—	Boer	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
—	—	Leer	—						
31	32	33	34	35	36	37	38	39	40
—	—	—	Boer	—	—	—	—	—	Litter
41	42	43	44	45	46	47	48	49	50
—	—	—	—	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present

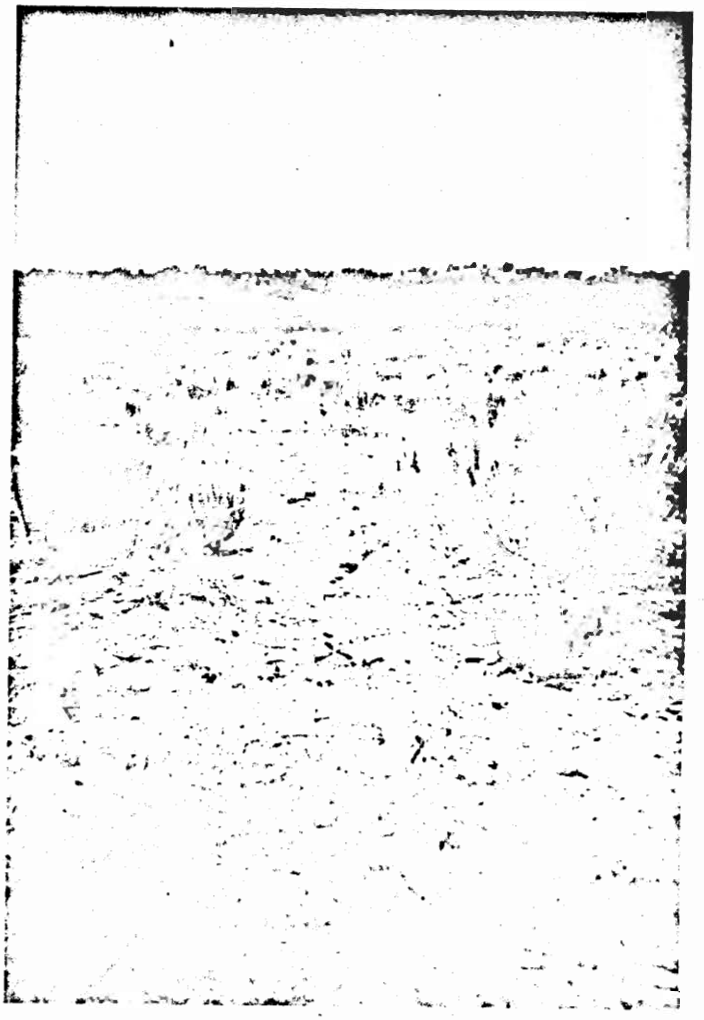
CHOL
Atca

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	:	⊠ ⊠	21-42	
Inc.	Sper		⊏	7-14	
Inv.					
	Gusa	•	⊡	9-18	
	SPHA		⊏	6-12	
	Leer	•	•	2-4	
	ARTR'		:1	5-10	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		4		4-8	
Hits Dec. & Inc.					
Tot. Rock		0		0-0	
Tot. Litter		1		1-2	
Bare Ground		45		45-90	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Od.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #74
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWUP PLATEAU Date 6-7-84 Transect No. 75
Aerial Photo No. 7-6 Place Interval 3 By JEAN ARMSTRONG - D BREWER
Game Mgmt. _____ Vegetative Type 9 FC Slope _____
Key Area _____ Soil M4 189 Aspect _____

Location Map:

BEARING N 35W
SOIL PLOT 7-6-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Rather open P-J stand with high canopy covers + frequency of GUTT. Could possibly been grassland prior to grazing?

Leaf Measurements (Vigor)

Species	Boer	
1	3	
2	3 1/2	
3	2	
4	1 1/2	
5	2	
6	1 1/2	
7	3	
8	2	
9	2 1/2	
10	1 1/2	
Tot	22.5	
Ave	2.3	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	28	32	32	X2=64
Inc.	0	2	2	2	X¼=.5
Inv.	16	50	66	66	X-1=66
Tot.	20	80	100	100	-1.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard B Dated 4-81

VEGETATION

Forage Cover Index 3
Composition 18
Vigor 1
Total 22
Cool Season . . . . . _____
Condition Class . . . . POOR
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 7
Soil Disturbance Factor 15
Total 22
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 20
Hits, all Rock 2
Litter 4
Bare Soil 74
Total 100
Hits, Dec. + Inc 4
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	6	6	7	8	9	10
—	—	—	—	Litter	—	Gusa	Gusa	—	—
11	12	13	14	16	16	17	18	19	20
			Juni						
—	—	—	Litter	—	—	—	—	—	Boer
21	22	23	24	25	26	27	28	29	30
—	Gusa	—	—	—		Boer	—	—	—
31	32	33	34	36	36	37	38	39	40
				Juni	Juni		Cora		
—	—	—	Rock	Litter	—	—	Litter	—	—
41	42	43	44	46	46	47	48	49	60
—	—	Gusa	—	—	—	—	Litter	—	—
51	52	53	54	56	56	57	58	69	60
61	62	63	64	66	66	67	68	69	70
71	72	73	74	76	76	77	78	79	80
81	82	83	84	86	86	87	88	89	90
91	92	93	94	96	96	97	98	99	100

COMPOSITION BY SIZE CLASS : ERIAN : ASPEN

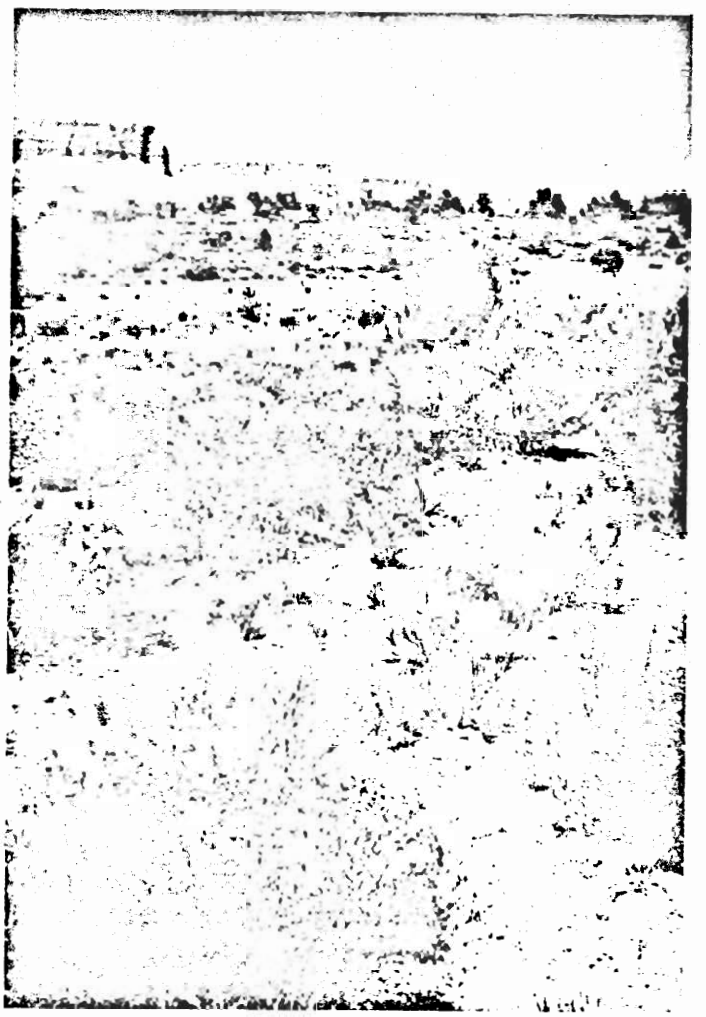
	Sprout		Sapling		Pole,		
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	: 2	𝍸 : 14	16-32	
Inc.					
	Spar		• 1	1-2	
Inv.	Gusa	: 4	𝍸 : 16	20-40	
	CHOL				
	Juni	: 3		3-6	
	ARIS		•	1-2	
	Cora	•	□	9-18	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		10		10-20	
Hits Dec. & Inc.					
Tot. Rock		1		1-2	
Tot. Litter		2		2-4	
Bare Ground		37		32-74	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #75
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-7-84 Transect No. 76
Aerial Photo No. 7-6 Place Interval 3 By JEAN ARMSTRONG & BREWER
Game Mgmt. _____ Vegetative Type 9 NC Slope _____
Key Area _____ Soil MU 190 Aspect _____

Location Map:

BEARING N 10° E
SOIL PLOT 7-6 #3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Current erosion rate appears excessive, probably geologic. Little perennial forage. NC classification

Leaf Measurements (Vigor)

Species	Boer	
1	3	
2	1½	
3	1½	
4	2	
5	1	
6	1½	
7	2½	
8	1	
9	1½	
10	2½	
Tot	20	
Ave	2.0	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	6	30	36	36	X2=72
Inc.	2	4	6	6	X¼=1.5
Inv.	10	48	58	58	X-1=58
Tot.	18	82	100	100	+15.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard B Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 2.1
Vigor 2
Total 28
Cool Season _____
Condition Class POOR
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 7
Soil Disturbance Factor 15
Total 22
Condition Class POOR
Current Trend →

Summary of Hits

Hits, all Plants 18
Hits, all Rock 6
Litter 2
Bare Soil 74
Total 100
Hits, Dec. + Inc 8
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	Boer	—
11	12	13	14	15	16	17	18	19	20
—	Yuba	—	—	Rock	Rock	Litter	—	—	—
21	22	23	24	25	26	27	28	29	30
				Lysium					
—	—	—	—	—	Rock	—	—	—	—
31	32	33	34	35	36	37	38	39	40
					EPHE		Yuba		
—	—	—	Boer	—	Litter	—	—	—	—
41	42	43	44	45	46	47	48	49	50
				Pinyon			Pinyon		
—	Boer	—	—	Litter	—	—	Litter	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Seedling		Pole	Mature	Decad
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

Present
OPUP
Arte
Juos
CHCL
Pimo

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	::	⊠ ::	18-36	
Inc.	EPHE	•	•	2-4	
	Cora		•	1-2	5-10%
Inv.					
	Gusa		⊠ □	18-36	
	Mallow		:	2-4	
	Yuba	:	:	4-8	
	Aster		•	1-2	
	Lysium	•		1-2	
	Barrel Cactus		•	1-2	
Rock	Pinyon	:		2-4	
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		9		9-18	
Hits Dec. & Inc.					
Tot. Rock		3		3-6	
Tot. Litter		1		1-2	
Bare Ground		37		37-74	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavoidable
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #76
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWTOOTH PLATEAU Date 6-7-84 Transect No. 77

Aerial Photo No. 7-6 Pace Interval 5 By JEAN ARMSTRONG - D BREWER

Game Mgmt. _____ Vegetative Type 9 NC Slope _____

Key Area _____ Soil M.V.190 Aspect _____

Location Map:

BEARING N 60E
SOIL PLOT 7-6-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Extremely limited available forage on side. Erosion in the form of sheety rill evident.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	TO	
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	2	8	10	10	X¼=2.5
Inv.	10	80	90	90	X.1=90
Tot.	12	88	100	100	=87.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard B Dated 4-81

VEGETATION

Forage Cover Index 1
Composition 2
Vigor 1
Total 4
Cool Season _____
Condition Class VP
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 10
Total 15
Condition Class VP
Current Trend →

Summary of Hits

Hits, all Plants 12
Hits, all Rock 6
Litter 0
Bare Soil 82
Total 100
Hits, Dec. + Inc 2
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	Rock	—	—	—	—
11	12	13	14	15	16	17	18	19	20
									Cora
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	23	27	28	29	30
							Cora		
—	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
Gusa					Cora				
—	—	—	—	—	—	—	—	—	Rock
41	42	43	44	45	46	47	48	49	50
Cora							Gusa		
Litter	—	—	—	—	—	—	Litter	—	Rock
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	75	73	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	93	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present

EPHE
Pimo
JUOS

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Doc.					
		2-3-2			
Inc.	Cora	⁞	𝍸	22-44	10% I-7 IN
Inv.	Gusa	⁚	𝍸	20-40	
	OPUN		⁚	6-12	
	CHOL		•	1-2	
	Yuba		•	1-2	
Rock					
Tot. Doc.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		6		6-12	
Hits Doc. & Inc.					
Tot. Rock		3		3-6	
Tot. Litter		0		0-0	
Bare Ground		41		41-82	
Tot. Cool Season					

BROWSE CONDITION

Specie	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
					—							
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #77
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 6-8-84 Transect No. 78
Aerial Photo No. 7-6 Place Interval 3 By JEAN ARMSTRONG - D BREWER
Game Mgmt. GCNP Vegetative Type 9 NC Slope
Key Area Soil M.U.191 Aspect

Location Map:

BEARING DUE NORTH
SOIL PLOT 7-6-5

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Few perennial forage species.

Leaf Measurements (Vigor)

Species	Beer	
1	1	
2	1	
3	1	
4	2	
5	1	
6	1	
7	1	
8	2	
9	1	
10	1	
Tot	12	
Ave	1.2	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	8	8	8	X2=16
Inc.	3	23	26	26	X¼=6.5
Inv.	15	51	66	66	X-1=66
Tot.	18	82	100	100	=88.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard B Dated 4-81

VEGETATION

Forage Cover Index 2
Composition 10
Vigor 1
Total 13
Cool Season
Condition Class VP
Current Trend →
Trend Indicators

SOIL STABILITY

Bare Soil Index 14
Soil Disturbance Factor 10
Total 24
Condition Class Poor
Current Trend →

Summary of Hits

Hits, all Plants 18
Hits, all Rock 28
Litter 4
Bare Soil 50
Total 100
Hits, Dec. + Inc 3
Cool Season

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	Rock	Rock	—	Spcr	—
11	12	13	14	15	16	17	18	19	20
			Cora	Juni			Cat	Yuba	
—	—	Rock			—	—	Claw	Litter	—
21	22	23	24	25	26	27	28	29	30
						Pinyon	Pinyon		
Rock	Rock	Rock	Rock	Rock	Rock	Litter	—	—	—
31	32	33	34	35	36	37	38	39	40
				Cora				Cat	
—	Rock	—	—	—	Rock	—	—	Claw	Litter
41	42	43	44	45	46	47	48	49	50
—	—	—	Rock	—	Rock	Rock	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS · RIPARIAN · ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		::	4-8	
		3=5			
Inc.	Cora	·:	T:	8-16	±-10% TIN
	Spcr	·	LJ	8-16	
Inv.	Agut		:	2-4	
	OPUN				
	Juni	:		1-2	
	Pinyon	:		2-4	
	Phau		:	2-4	
	UNK I				
	Gusa		⁝	5-10	
Rock	CatCLAW	··	:·	4-8	
	Yuba	·	·	2-4	
	ARIS		~~2~~··	12-24	
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		9		9-18	
Hits Dec. & Inc.					
Tot. Rock		14		14-28	
Tot. Litter		1		1-2	
Bare Ground		26		26-52	
Tot. Cool Season					



Pace Transect #78
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-8-84 Transect No. 79
Aerial Photo No. 7-6 Place Interval 3 By JEAN ARMSTRONG & J. BREWER
Game Mgmt. GCNP Vegetative Type 9 NC Slope 59%
Key Area _____ Soil MU 190 Aspect N34E

Location Map:

BEARING S35E
SOIL PLOT 7-6-6

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Rocky shallow upland landscape position Natural geologic erosion rate Above tolerance, NC classification.

Leaf Measurements (Vigor)

Species		
1		
2	TP	
3		
4		
5	NOTHOLAENA	
6		
7	MEAS	
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	2	8	10	10	X¼=2.5
Inv.	8	82	90	90	X-1=90
Tot.	10	90	100	100	=92.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard R Dated 4-81

VEGETATION

Forage Cover Index 1
Composition 2
Vigor 1
Total 4
Cool Season . . . . . ____
Condition Class . . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 12
Soil Disturbance Factor 10
Total 22
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 10
Hits, all Rock 28
Litter 4
Bare Soil 58
Total 100
Hits, Dec. + Inc 2
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Cora						
—	—	—		Litter	—	Litter	—	—	—
11	12	13	14	15	16	17	18	19	20
Rock	—	—	Rock	Rock	Rock	—	Rock	—	Rock
21	22	23	24	25	26	27	28	29	30
						Cora			
Rock	—	—	—	—	Rock	—	—	Rock	—
31	32	33	34	35	36	37	38	39	40
Toni	→				Gosa				
—	Rock	—	—	—		—	—	—	Rock
41	42	43	44	45	46	47	48	49	50
—	Rock	—	—	Rock	Rock	—	—	—	Rock
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS . RIPARIAN . ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
		2=I			
Inc.	Cora	:	I:	9-18	I-10% → IM
	ARIS'		::	4-8	
Inv.	OPUN		⊠	8-16	
	Guti	•	⊠⊠:	23-46	
	Scbr		•	1-2	
	CHOL				
	Yuba				
	Agut		:	2-4	
	Toni	••	•	3-6	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		5		5-10	
Hits Dec. & Inc.					
Tot. Rock		14		14-28	
Tot. Litter		2		2-4	
Bare Ground		29		29-58	
Tot. Cool Season					



Pace Transect #79
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-8-84 Transect No. 80
Aerial Photo No. 7-6 Place Interval 3 By JEAN ARMSTRONG - D BREWER
Game Mgmt. GCNP Vegetative Type 1 FC Slope 4
Key Area _____ Soil M/L 192 Aspect N 70 E

Location Map:

BEARING DUE NORTH
SOIL PLOT 7-6-7

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Large gully bisecting delineation.

Leaf Measurements (Vigor)

Species	Boor	Hija
1	2	6
2	2 1/2	4 1/2
3	3 1/2	5 1/2
4	1 1/2	6
5	2	4
6	2	4 1/2
7	2 1/2	6
8	1 1/2	6 1/2
9	3	4
10	2	4 1/2
Tot	22.5	51.5
Ave	2.3	5.2

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	6	8	14	14	X2=28
Inc.	5	12	17	17	X½=8.5
Inv.	19	50	69	69	X1=69
Tot.	30	70	100	100	=36.75
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 15
Composition 11
Vigor 4
Total 30
Cool Season . . . . . ____
Condition Class . . . . POOR
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 8
Soil Disturbance Factor 15
Total 23
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 30
Hits, all Rock 0
Litter 0
Bare Soil 70
Total 100
Hits, Dec. + Inc 11
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	Gusa	—	Schr
11	12	13	14	15	16	17	18	19	20
									Gusa
Gusa		Busa	Schr	—	—	—	—	—	—
21	22	23	24	25	23	27	28	29	30
—	—	—	—	—	—	—	—	—	—
31	32	33	34	35	33	37	38	39	40
—	Boer	Hija	Hija	—	—	Susa	—	—	Boer
41	42	43	44	45	46	47	48	49	50
—	—	Hija	—	Boer	—	Hija	CHOL	—	—
51	52	53	54	55	56	57	53	59	60
61	62	63	64	65	63	67	68	69	70
71	72	73	74	76	78	77	78	79	80
81	82	83	84	85	83	87	88	89	90
91	92	93	94	95	93	97	93	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

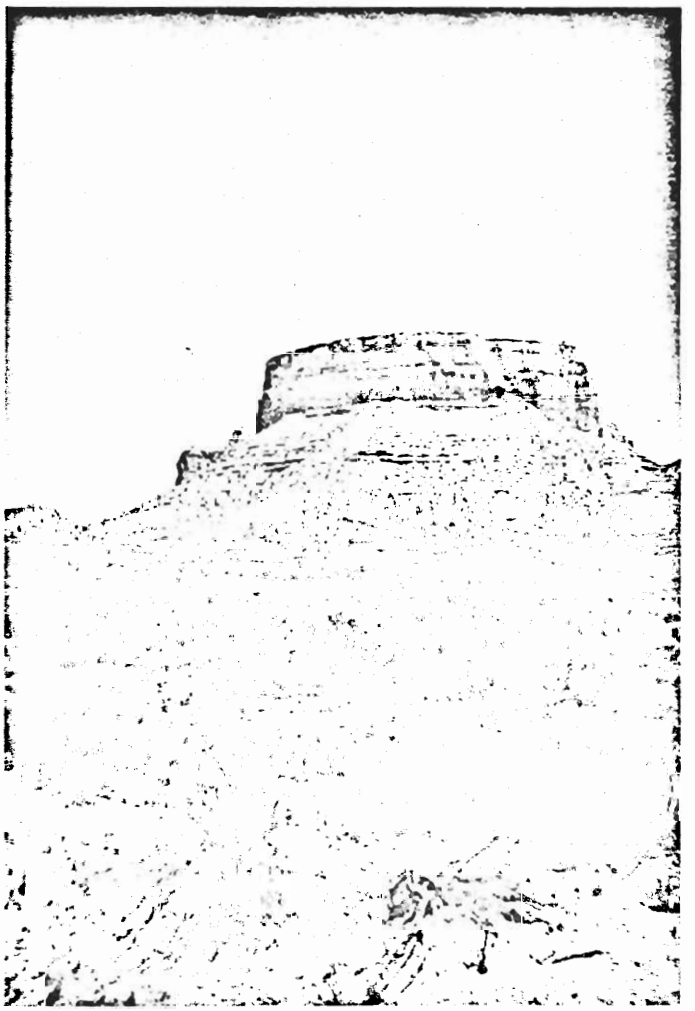
	Sprout		Seedling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	::	::	6-12	
	Siby		•	1-2	
Inc.	Cora				
	Spcr	5½	•	1-2	
	Hija	::	::	12-24	7-15% PIN
Inv.	Gusa	::	::	17-34	
	CFOL	•		1-2	
	Yuba		•	1-2	
	Schr	:	::	10-20	
	SPHA		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		15		15-30	
Hits Dec. & Inc.					
Tot. Rock		0		0-0	
Tot. Litter		0		0-0	
Bare Ground		35		35-70	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #80
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWUP PLATEAU Date 6-8-84 Transect No. 81
Aerial Photo No. _____ Place Interval 3 By JEAN ARMSTRONG - BREWER
Game Mgmt. _____ Vegetative Type 9 NC Slope 24%
Key Area _____ Soil MU 191 Aspect S22E

Location Map:

BEARING N 35 E
SOIL PLOT 7-6-8

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Steep, rocky sides 10pc

Leaf Measurements (Vigor)

Species	Beer	
1	1	
2	1	
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	2	
10	1	
Tot	11	
Ave	1.1	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	18	18	18	X2=
Inc.	0	18	18	18	X½=
Inv.	0	64	64	64	X-1=
Tot.	0	100	100	100	=20.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 0
Composition 14
Vigor 1
Total 15
Cool Season . . . . . ____
Condition Class . . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 7
Soil Disturbance Factor 20
Total 27
Condition Class . . . . . Poor
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 0
Hits, all Rock 24
Litter 2
Bare Soil 74
Total 100
Hits, Dec. + Inc 0
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., tation type, predominant vegetation, vege and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	Rock	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
Rock	—	Rock	—	Rock	—	—	—	Rock	Rock
21	22	23	24	25	26	27	28	29	30
—	—	—	—	Rock	Rock	—	—	—	Rock
31	32	33	34	35	36	37	38	39	40
Litter	—	—	—	—	—	—	—	—	Rock
41	42	43	44	45	46	47	48	49	50
Rock	—	—	—	—	Rock	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Sihy
Mupo
Rhtr
Pimo
Juos

RANGE COMPOSITION

Class	Species	Hits	Telly	Total	Allowable
Dec.	Boer		2!	7-14	
	Orhy		::	2-4	
Inc.	Cora		⊠ ::	14-28	1-10%
	Hija		::	2-4	
	EPHE		::	2-4	
Inv.					
	Gusa		⊠	9-18	
	Thmo		⊠	10-20	
	Yuba		::	4-8	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		0		0-0	
Hits Dec. & Inc.					
Tot. Rock		17		12-24	
Tot. Litter		1		1-2	
Bare Ground		37		37-74	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Od.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #81
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 6-8-84 Transect No. 82

Aerial Photo No. 7-6 Place Interval 3 By STEVE ARMSTRONG D BREWER

Game Mgmt. _____ Vegetative Type 1 FC Slope 3

Key Area _____ Soil MU 182 Aspect S504

Location Map:

BEARING DUE WEST
SOIL PIT 7-6-9

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Utilization estimated in excess of 50%. Large gully through delineation.

Leaf Measurements (Vigor)

Species	Boer	Hijd
1	1½	4
2	1	5
3	1	7
4	2	6½
5	1½	4½
6	2	5
7	2½	4½
8	1	6
9	1½	6½
10	1½	4
Tot	15.5	53
Ave	1.6	5.3

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	8	32	40	40	X2=80
Inc.	3	12	15	15	X¼=3.75
Inv.	7	38	45	45	X.1=4.5
Tot.	18	82	100	100	+38.75
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 15
Composition 25
Vigor 4
Total 44
Cool Season . . . . . ____
Condition Class . . . . FAIR
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 25
Total 30
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 18
Hits, all Rock 0
Litter 2
Bare Soil 80
Total 100
Hits, Dec. + Inc 11
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE 276

FS-2209.19 (4-79)

LOOP MEASUREMENTS

11	12	13	14	15	16	17	18	19	
—	Hija	—	Hija	Hija	—	—	—	Hija	—
21	22	23	24	25	26	27	28	29	30
—	—	—	Boer	—	Boer	—	Hija	—	—
31	32	33	34	35	36	37	38	39	40
—	—	—	—	—	—	Litter	—	—	—
41	42	43	44	45	46	47	48	49	50
Boer	Boer	—	—	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

FOLIAGE PROFILE BY SIZE CLASS — RIPARIAN - ASPEN

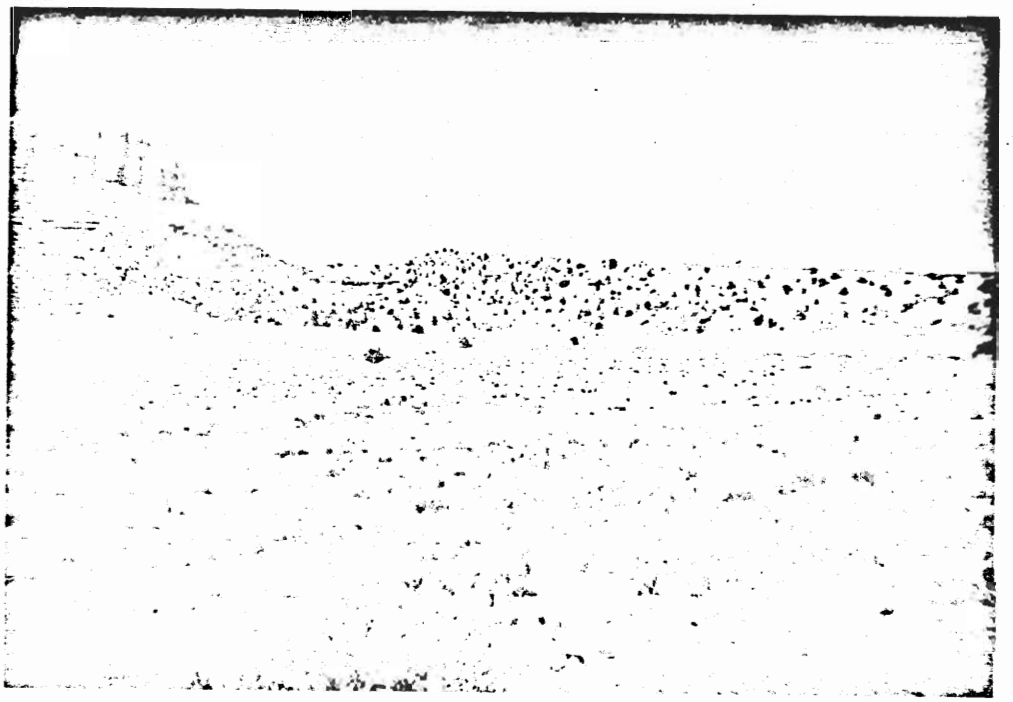
	Woody	Understory	Browse	Overstory	Note	Nature	Comp.
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	::	⊠ :]	20-40	
		3-ID			
Inc.	Hija	:]	:⊠⊠	27-54	I-15% PJN
Inv.	Gusa		:·	3-6	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		9		9-18	
Hits Dec. & Inc.					
Tot. Rock		0		0-0	
Tot. Litter		1		1-3	
Bare Ground		40		40-80	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
To:												



Pace Transect #82
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-11-84 Transect No. 83

Aerial Photo No. 6-8 Place Interval 3 By SHARROW JORGENSEN

Game Mgmt. _____ Vegetative Type 1 FC Slope 3%

Key Area _____ Soil MV 189 Aspect 110°

Location Map:

BEARING N10W
SOIL PLOT 6-8-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.000
8								
9								
10								
tot								
avg								

Comments: Open P-J Unit. Higher grass cover percentages than other grazed area. No recent grazing. Little or no utilization. Production estimated at 200 or 250 lbs/acre.

Leaf Measurements (Vigor)

Species	Bser	
1	2	
2	3	
3	2.5	
4	3.5	
5	3.5	
6	3	
7	3	
8	2	
9	2	
10	2	
Tot	26.5	
Ave	2.7	

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	8	22	30	30	X2=60
Inc.	6	2	8	8	X¼= 2
Inv.	10	52	62	62	X1=62
Tot.	24	76	100	100	0
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 19
Composition 18
Vigor 1
Total 38
Cool Season . . . . . ____
Condition Class . . . . Poor
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 6
Soil Disturbance Factor 16
Total 22
Condition Class . . . . . Poor
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 24
Hits, all Rock 0
Litter 0
Bare Soil . . . 76
Total 100
Hits, Dec. + Inc 14
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
									Epvi
—	—	—	—	—	Arar	—	—	—	—
11	12	13	14	15	16	17	18	19	20
Gusa									Gusa
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
							Atca		
—	Boer	—	—	—	—	—	L	—	—
31	32	33	34	35	36	37	38	39	40
—	Siby	—	—	—	—	—	Acer	—	—
41	42	43	44	45	46	47	48	49	50
					Epvi	Epvi	Atca		
—	—	—	—	Arar	L	L	L	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

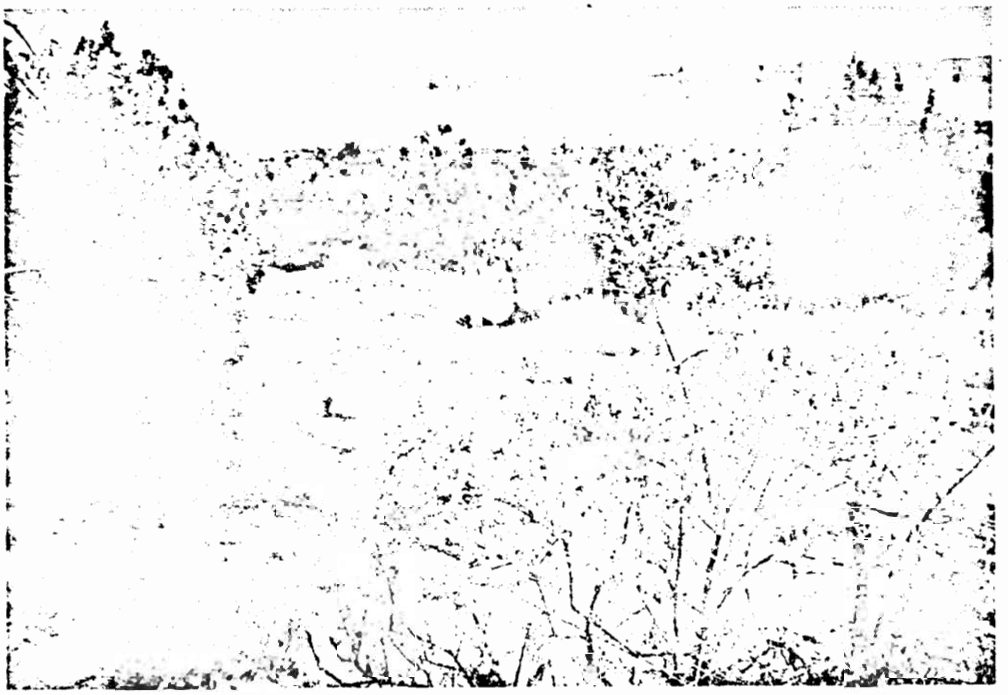
Present
Hiei
Yucc
Juas
Pino

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Orhy		.	1-2	
	Boer	.	𝍸	9-18	
	Atca	:		2-4	
	Siby	.	:	3-6	
Inc.					
	Epvi	::		3-6	
	Hija		.	1-2	
Inv.	Gusa	:	𝍸	9-18	
	Acer	.	𝍸	7-14	
	OPUN		.	1-2	
	Cora		::	4-8	
	SPHA		:	2-4	
	ARIS	..	:I	7-14	
	Cora		.	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		12		12-24	
Hits Dec. & Inc.					
Tot. Rock		Ø		0-0	
Tot. Litter		Ø		0-0	
Bare Ground		30		38-76	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
					—							
Tot.												
S												
	-	-										
Tot.												
C												
Tot.												



Pace Transect #83
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment: SAND PLATEAU Date: 6-11-81 Transect No.: 84

Aerial Photo No.: Pace Interval: 3 By: SHARROW JORGENSON

Game Mgmt.: GCNP Vegetative Type: 1 FC Slope: 2

Key Area: Soil: MU 192 Aspect: 140°

Location Map:

BEARING 120°
SOIL PLOT 6-8-8

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated at 200 lbs/acre mostly of Hiei Vigor variable.

Leaf Measurements (Vigor)

Species	Beer	Hurl
1	2	3.5
2	2	2.5
3	1.5	4.5
4	2.5	3.0
5	2	7
6	1.5	5
7	1.5	3.5
8	1	3
9	2.0	4
10	3.0	2
Tot	18.0	39.0
Ave	1.8	3.9

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	18	46	64	64	X2=128
Inc.	4	0	4	4	X½=1
Inv.	4	28	32	32	X-1=32
Tot.	26	74	100	100	+97
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4-81

VEGETATION

Forage Cover Index: 29
Composition: 35
Vigor: 4
Total: 68
Cool Season:
Condition Class: GOOD
Current Trend: →
Trend Indicators:

SOIL STABILITY

Bare Soil Index: 7
Soil Disturbance Factor: 20
Total: 27
Condition Class: POOR
Current Trend: →

Summary of Hits

Hits, all Plants: 26
Hits, all Rock: 0
Litter: 2
Bare Soil: 72
Total: 100
Hits, Dec. + Inc: 22
Cool Season:

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
						Atca			
Meal	Hiri	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
—	Boer	—	—	Hiri	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
					Atca	Atca		Gusa	
—	—	—	—	L	Atca	—	Siby	—	—
31	32	33	34	35	36	37	38	39	40
—	—	—	—	—	—	—	—	—	Siby
41	42	43	44	45	46	47	43	49	50
							Epui		
—	—	—	—	Sper	—	Boer	Epui	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Present
Lypo?
Juos
Pimo

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Atca	::		6	
	Boer	:	11	22	
	Siby	:	9	18	
	Hiri	::	4	9-18	
Inc.					
	Sper.	•		2	
	Epui.	•		2	
Inv.	Meal	•		2	
	Coma		::	6	
	Gusa	•	3	14	
	Leer		::	6	
	Opac		•	2	
	ARIS		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		26		13-26	
Hits Dec. & Inc.		22			
Tot. Rock		0		0-0	
Tot. Litter		2		1-2	
Bare Ground		22		36-72	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unusable
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWUP PLATEAU Date 6-11-84 Transect No. 85

Aerial Photo No. 6-8 Place Interval ___ By SHARROW JORGENSON

Game Mgmt. ___ Vegetative Type 9 FC Slope 2%

Key Area ___ Soil MU 189 Aspect 350°

Location Map:

BEARING 260°
SOIL PLOT 6-8-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated at 250 lbs/acre mostly of Hipi + Boer. No evidence of recent grazing

Leaf Measurements (Vigor)

Species	Boer	Hipi
1	1.5	6.5
2	2	5
3	2	6.5
4	1.5	4.0
5	1	4.0
6	2.5	4.0
7	2.0	3.0
8	2.0	6.0
9	1.0	6.5
10	1.5	6.0
Tot	17.0	51.5
Ave	1.7	5.2

CROWN DENSITY (ASPEN-AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	8	52	60	60	X2= 120
Inc.	2	2	4	4	X¼= 1
Inv.	16	20	36	36	X-15= 6
Tot.	26	74	100	100	+8.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-84

VEGETATION

Forage Cover Index 13
Composition 33
Vigor 3
Total 49
Cool Season . . . . . ___
Condition Class . . . FAIR
Current Trend . . . . →
Trend Indicators ___

SOIL STABILITY

Bare Soil Index 7
Soil Disturbance Factor 16
Total 23
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 26
Hits, all Rock 0
Litter 0
Bare Soil 74
Total 100
Hits, Dec. + Inc 10
Cool Season ___

- SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
						Tuos			
—	—	—	Hirl	—	—	L	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	—	Arar	—	Boer	—	—	—
21	22	23	24	25	26	27	28	29	30
						Gusa			
—	—	Boer	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
		Epvi			Tuos	Yuba			
—	—	Epvi	—	—	Sihy	L	Sihy	—	—
41	42	43	44	45	46	47	48	49	50
				Tuos			Tuos	Tuos	
—	—	—	—	—	—	—	L	L	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Seedling		Sapling		Pole	METERS	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present.
Cegr
Acte
Opoc
Pimo

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sihy	•	⁝	8	
	Boer	⁝	𝍸 ⁝	28	
	Orhy	⁝	⁝	4	
	Hirl	•	⁝⁝	10	
Inc.	Epvi	•	-	4	
	ARIS'	•	⁝	8	
Inv.	Gusa	•	⁝1	12	
	Tuos	⁝1		10	
	Leer	•	•	2	
	Yuba	•	-	4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		13		26	
Hits Dec. & Inc.					
Tot. Rock		0		0	
Tot. Litter		9		9	
Bare Ground				24	
Tot. Cool Season		37			

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
	-	-										
Tot.												
C												
Tot.												

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 6-11-84 Transect No. 86

Aerial Photo No. 12-15 Pace Interval 3 By GALGANO

Game Mgmt. _____ Vegetative Type 7 FC Slope 3

Key Area _____ Soil _____ Aspect N80E

Location Map:

BEARING N90W
SOIL PLOT 12-15-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Dissected by numerous drainages

Leaf Measurements (Vigor)

Species		
1		
2		
3	GRASS	
4	GRASS	
5	GRASS	
6	GRASS	
7	GRASS	
8	GRASS	
9		
10	NO MEASURE	
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	12	2	14	14	X2= 28
Inc.	20	15	35	35	X¼= 8.75
Inv.	22	29	51	51	X-1= 51
Tot.	54	46	100	100	= 14.25
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard 8 Dated 4/81

VEGETATION

Forage Cover Index 21
Composition 15
Vigor 1
Total 37
Cool Season . . . . . _____
Condition Class . . . Poor
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 27
Soil Disturbance Factor 20
Total 47
Condition Class . . . . . Fair
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 54
Hits, all Rock 12
Litter 14
Bare Soil . . . 20
Total 100
Hits, Dec. + Inc 32
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	3	3	4	5	6	7	8	9	10
		Tuos			Yuba		Qutu		Qutu
R	L	—	R	—	Yuba	—	Qutu	L	Qutu
11	12	13	14	15	16	17	18	19	20
Qutu				Qutu	CeGr	Cora			Yuba
Qutu	—	—	R	Rhtr	-	Cora	R	L	Yuba
21	22	23	24	25	26	27	28	29	30
CeGr	CeGr						CeGr	Rhtr	CeGr
—	CeGr	—	Opuntia	L	—	—	R	R	CeGr
31	32	33	34	35	36	37	38	39	40
Qutu	Qutu	Yuba					Qutu	Qutu	Qutu
—	—	—	R	L	L	L	Qutu	Qutu	—
41	42	43	44	45	46	47	48	49	50
Yuba	CeGr			Tuos	Cora	Cora		Epvi	
Yuba	CeGr	—	—	Cora	Cora	—	—	Epvi	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Decay
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Fapi
Come

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Fapa				
	Come				
	Cegr	7	•	7-14	
Inc.	Artr		:	3-6	1-5% TIN
	Qutu	2	:	10-20	
	Rhtr	•	•	3-6	
	Epvi	•	-	2-4	
Inv.	Yuba	:1		5-10	
	Tuos	•		2-4	
	Cora	:	:	8-16	
	Guti		2	7-14	
	OPUN	•	•	3-6	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		27		22-54	
Hits Dec. & Inc.					
Tot. Rock		6		6-12	
Tot. Litter		7		7-14	
Bare Ground		10		10-20	
Tot. Cool Season					

BROWSE CONDITION

	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec	Dd.	1	2	3	4	5	6		



Pace Transect #86
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-11-84 Transect No. 87

Aerial Photo No. 12-5 Place Interval ____ By GALEANO

Game Mgmt. ____ Vegetative Type 7. FC Slope 3-5

Key Area ____ Soil MU 39 Aspect EAST

Location Map:

BEARING DUE WEST N 90 W
SOIL PLOT 12-15-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.019
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: ____

Leaf Measurements (Vigor)

Species		
1.		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	12	14	14	X2=28
Inc.	13	6	19	19	X¼=4.75
Inv.	27	40	67	67	X.1=6.7
Tot.	42	58	100	100	=39.25
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard B Dated 4-81

VEGETATION

Forage Cover Index 10

Composition 12

Vigor 1

Total 23

Cool Season . . . . . ____

Condition Class . . . . Poor

Current Trend . . . . →

Trend Indicators ____

SOIL STABILITY

Bare Soil Index 26

Soil Disturbance Factor 20

Total 46

Condition Class . . . . . →

Current Trend . . . . . ____

Summary of Hits

Hits, all Plants 42

Hits, all Rock 26

Litter 10

Bare Soil 22

Total 100

Hits, Dec. + Inc 15

Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Cora	Artr			Quto	Quto			
C	Cora	—	—	R	Quto	Quto	—	—	—
11	12	13	14	15	16	17	18	19	20
			Quto		Cora				
R	—	C	—	R	Cora	—	—	C	Guti
21	22	23	24	25	26	27	28	29	30
									Quto
R	L	R	L	Guti	R	R	Guti	Guti	
31	32	33	34	35	36	37	38	39	40
			Jvos	Artr			Fapa		
R	R	R	—	—	—	R	—	—	—
41	42	43	44	45	46	47	48	49	50
Jvos	Quto			Yuba	Yuba	Artr	Guti	Jvos	
—	—	—	R	—	Yuba	—	Guti	Rhtr	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Gagg
Come

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Fapa	•	••	3-6	D-15%
	GoGR		••	4-8	
	Come				
		3+5			
Inc.	Artr	••	•	5-10	I-5%-2IW
	Quto	••	•	6-12	
	Epvi		•	1-2	
	PHLOX		•	1-2	
Inv.					
	Cora	••	••	4-8	
	Guti	:1	14::	19-38	
	Jvos	:•		3-6	
	Yuba	:	•	3-6	
	Cholla		•	1-2	
Rock S					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		21		21-42	
Hits Dec. & Inc.					
Tot. Rock		13		13-26	
Tot. Litter		5		5-10	
Bare Ground		11		11-22	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavailable
	Y	M	Dec.	Od.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #87
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWTOOTH PLATEAU Date 6-11-84 Transect No. 88

Aerial Photo No. 12-16 Place Interval 3 By GALEANO BREWER

Game Mgmt. _____ Vegetative Type _____ Slope 0-5

Key Area _____ Soil MU 39 Aspect EAST

Location Map:

BEARING S80W
SOIL PLOT 12-16-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
Tot								
Avg								

Comments: _____

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	10	
5		
6		
7		
8		
9		
10		
Tot	10	
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	8	10	10	X2= 20
Inc.	18	4	22	22	X¼=5.5
Inv.	16	52	68	68	X.1=6.8
Tot.	36	64	100	100	=42.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard B Dated 4-81

VEGETATION

Forage Cover Index 13
Composition 10
Vigor 1
Total 24
Cool Season . . . . . ____
Condition Class . . . . Poor
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 19
Soil Disturbance Factor 20
Total 39
Condition Class . . . . . Poor
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 36
Hits, all Rock 28
Litter 2
Bare Soil 34
Total 100
Hits, Dec. + Inc 20
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	CeGR		Qutu			Arpu	Arpu		
—	CeGR	—	R	~	R	Arpu	R	—	R
11	12	13	14	15	16	17	18	19	20
		Qutu	Qutu		Qutu	Qutu			
—	—	—	—	R	Qutu	Qutu	Yuba	R	R
21	22	23	24	25	26	27	28	29	30
Stsp	R	R	—	—	R	R	—	R	R
31	32	33	34	35	36	37	38	39	40
Qutu		Rhtr			Pimo				
Qutu	R	Rhtr	—	Guti	—	—	—	L	—
41	42	43	44	45	46	47	48	49	50
	Qutu					—		Yuba	Pimo
R	—	—	—	—	R	Yuba	—	Yuba	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Fapa
Come
Artr
OPUN

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Fapa				
	Come				
	CeGr	•	:	3-6	
	Erfa		:	2-4	
Inc.	Artr				
	Qutu	5	-	8-16	
	Rhtr	•	-	2-4	
	Stsp	•		1-2	
	Phlox		3	8-16	
Inv.	Pimo	:	•	3-6	
	Guti	•	7 :	14-28	
	Yuba	:	•	4-8	
	Arpu	:		2-4	
	Cora		••	2-4	
	Erigeron		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		18		18-36	
Hits Dec. & Inc.					
Tot. Rock		14		14-28	
Tot. Litter		1		1-2	
Bare Ground		17		17-34	
Tot. Cool Season					

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-11-84 Transect No. 89

Aerial Photo No. 12-16 Pace Interval 3 By GALEANO - BREWER

Game Mgmt. _____ Vegetative Type 9 NC Slope 2-3

Key Area _____ Soil MU 190 Aspect EAST

Location Map:

BEARING E 205
SOIL PLOT 12-16-2

BASAL AREA - Riparian or Aspen

Number or Code class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Active geologic erosion: NC

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	0	2	2	X2= 4
Inc.	2	8	10	10	X½=2.5
Inv.	36	52	88	88	X.5=88
Tot.	40	60	100	100	=81.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 3
Vigor 1
Total 9
Cool Season ____
Condition Class VP
Current Trend →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 14
Soil Disturbance Factor 20
Total 34
Condition Class POOR
Current Trend →

Summary of Hits

Hits, all Plants 40
Hits, all Rock 6
Litter 4
Bare Soil 50
Total 100
Hits, Dec. + Inc 4
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

FS-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Cora	Cora			Cora	Cora	Cora
			Cora	Cora	—	—	Cora	Cora	Cora
11	12	13	14	15	16	17	18	19	20
Cora						Cora	Cora		—
Cora	R	L	—	—	—	L	L	—	Cora
21	22	23	24	25	26	27	28	29	
			Cora				Cora	Cora	
—	—	—	—	—	—	—	Cora	Cora	—
31	32	33	34	35	36	37	38	39	40
		Cora	Cora		Cora				
		Cora	Cora	Cora	Cora	—	—	—	Cora
41	42	43	44	45	46	47	48	49	50
	Cora	Cora					Come		
R	Cora	L	—	B	—	—	Come	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

Present
Pimo
Juos

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Come	•		1-2	
		2=12			
Inc.	Cora	☒☐	☒☒ıı	45-90	I-10%
	Chna		•	1-2	
	Opuntia		••	2-4	
	Agave				
	Yuba		•	1-2	
Inv.					
Flock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		20		20-40	
Hits Dec. & Inc.					
Tot. Rock		3		3-6	
Tot. Litter		2		2-4	
Bare Ground		25		25-50	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
U												
Tot.												
C												
Tot.												

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-12-84 Transect No. 90
Aerial Photo No. 6-8 Place Interval 3 By SHARROW JORGENSON
Game Mgmt. _____ Vegetative Type 1 FC Slope _____
Key Area _____ Soil MU 192 Aspect S20E

Location Map:

BEARING N30E
SOIL PLOT 6-8-3

BASAL AREA - Riparian or Aspen

Number or size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated to be 175 lbs/acre. No evidence of recent grazing. Boer & Sihy appear to be vigorous.

Leaf Measurements (Vigor)

Species	Boer	Sihy
1	1.5	8.5
2	2	8
3	1.5	9
4	1.5	12
5	1.5	10
6	3.0	10
7	4.0	8
8	2.5	7
9	3.0	10
10	3.0	10.5
Tot	26.5	93.0
Ave	2.7	9.3

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	10	36	46	46	X2= 92
Inc.	0	2	2	2	X½= 1
Inv.	8	44	52	52	X1= 52
Tot.	18	82	100		+ 145
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 13
Composition 25
Vigor 6
Total 44
Cool Season . . . . . _____
Condition Class . . . . FAIR
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 7
Soil Disturbance Factor 20
Total 27
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 18
Hits, all Rock 0
Litter 8
Bare Soil 74
Total 100
Hits, Dec. + Inc 12
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Gusa								
—	—	Leer	—	—	L	L	—	—	—
11	12	13	14	15	16	17	18	19	20
Atca		Gusa							
L	—	—	—	—	—	L	—	—	—
21	22	23	24	25	26	27	28	29	30
	Gusa				Atca				
—	Gusa	—	—	—	—	—	—	—	Boer
31	32	33	34	35	36	37	38	39	40
—	—	—	—	—	—	—	L	—	—
41	42	43	44	45	46	47	48	49	50
Atca									
Atca	—	—	—	—	—	Boer	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

Present
Juos
Yubq

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Orby		.	1-2	
	Atca	:.	.	4-8	
	Boer	:	⊟::	16-32	
	Sihy		.	1-2	
	Mupo		.	1-2	
Inc.	Epui		.	1-2	
	ABIS'		..	2-4	
Inv.	Gusa	:.	::	7-14	
	Leer	.	::	5-10	
	Lile		::	4-8	
	Cora		.	1-2	
	SPHA		:	2-4	
	Primrose		:]	5-10	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		18		9-18	
Hits Dec. & Inc.					
Tot. Rock		0		0-0	
Tot. Litter		8		4-8	
Bare Ground		74		37-74	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Od.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #90
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-12-84 Transect No. 91
Aerial Photo No. 6-9 Place Interval 3 By SHARROW - JORGENSON
Game Mgmt. _____ Vegetative Type 1 FC Slope 1%
Key Area _____ Soil MU 192 Aspect S40E

Location Map:

BEARING N60E
SOIL PLOT 6-9-1

BASAL AREA - Riparian or Aspen

Number or ze class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated at 200 lbs/acre. Plants appear vigorous, with no signs of recent utilization.

Leaf Measurements (Vigor)

Species	Bser	Sihy
1	2.0	5.0
2	3.5	4.0
3	2.5	9.5
4	2.5	8.0
5	3.0	10.5
6	2.5	12
7	2.5	13.5
8	2.5	9.0
9	3.0	7.5
10	3.0	6.0
Tot	27.0	87.0
Ave	2.7	8.7

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	12	52	64	64	X2=128
Inc.	0	0	0	0	X½= 0
Inv.	6	30	36	36	X1=36
Tot.	18	82	100	100	÷92
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 110
Composition 35
Vigor 6
Total 57
Cool Season . . . . . _____
Condition Class . . . . FAIR
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 24
Total 29
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 18
Hits, all Rock 0
Litter 2
Bare Soil 80
Total 100
Hits, Dec. + Inc 12
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
				ATCa	ATCa				
Sihy	L	—	—	L	L	—	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	—	—	—	—	—	SPHE	—
21	22	23	24	25	26	27	28	29	30
—	—		—	STEO	—	—		—	
31	32	33	34	35	36	37	38	39	40
		Jues							
—	—	—	—	—	STEO	—	—	—	—
41	42	43	44	45	46	47	48	49	50
								SYMO	CHSE
—	—	—	—	—	—	—	—	—	L
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Vulg
Spce
Spco
OPUN
Copg

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer		7	16-32	
	Sihy		1	8-16	
	ATCa		2	4-8	
	Steo		2	4-8	
Inc.					
Inv.	ARSi		2	5-10	
	LIPE		1	1-2	
	Leer		1	2-4	
	Guso		3	2-14	
	Juon		1	1-2	
	SPHE		1	1-3	
	Lypa		1	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		9		9-18	
Hits Dec. & Inc.					
Tot. Rock		0		0-0	
Tot. Litter		1		1-2	
Bare Ground		40		40-80	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
					—							
					—							
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #91
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SALUP PLATEAU Date 6-12-84 Transect No. 92

Aerial Photo No. 6-8 Place Interval 3 By SHARROW JORGENSON

Game Mgmt. _____ Vegetative Type 9 FC Slope 10%

Key Area _____ Soil _____ Aspect S40E

Location Map:

BEARING S75°W
SOIL PLOT 6-8-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production approx. 250 lbs/acre with no sign of recent utilization.

Leaf Measurements (Vigor)

Species	Bear	Silky
1	3.5	7
2	5	5
3	4	5.5
4	5.5	8.5
5	1.5	6.5
6	1.5	7
7	4.5	8
8	3.5	6
9	3.5	7
10	2.5	6
Tot	33.0	70.5
Ave	3.3	7.1

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	48	52	54	X2= 104
Inc.	0	4	4	4	X1= 1
Inv.	6	38	44	42	X.1= 4.4
Tot.	10	90	100	100	= 16
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 29
Vigor 6
Total 40
Cool Season . . . . . ____
Condition Class . . . . POOR
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 20
Total 25
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 10
Hits, all Rock 0
Litter 8
Bare Soil 82
Total 100
Hits, Dec. + Inc 4
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	—	—	—	Steo	—	—	—
21	22	23	24	25	26	27	28	29	30
—	—	—	—	L	L	L	—	—	—
31	32	33	34	35	36	37	38	39	40
—	—	—	—	—	—	—	—	—	—
41	42	43	44	45	46	47	48	49	50
					Yuba				
—	Yuba	—	—	—	L	—	Orhy	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Seedling		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Baey			10-20	
	Steo			2-14	
	Sihy			2-14	
	Orhy			2-4	
Inc.	Epui			1-2	
	Sper			1-2	
Inv.	Leer			5-10	
	Jusc			1-2	
	Gusa			8-16	
	SPHA			2-4	
	Yuba			2-4	
	Avsa1			4-8	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		5		5-10	
Hits Dec. & Inc.					
Tot. Rock		0		0-0	
Tot. Litter		4		4-8	
Bare Ground		41		41-82	
Tot. Cool Season					



Pace Transect #92
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-12-84 Transect No. 93
Aerial Photo No. 6--8 Place Interval 3 By SHARROW JORGENSON
Game Mgmt. _____ Vegetative Type 16 PC Slope _____
Key Area _____ Soil MU 178 Aspect S40°W

Location Map:

BEARING N45E
SOIL PLOT 6-8-5

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Typical Coop tables with zero production, no utilization and/or past use. Soils stable due to gentle slop

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	0	2	2	X2= 4
Inc.	4	6	10	10	X¼= 2.5
Inv.	36	52	88	88	X-1=
Tot.	42	58	100	100	-81.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-8)

VEGETATION

Forage Cover Index 8
Composition 3
Vigor 1
Total 12
Cool Season . . . . . ____
Condition Class . . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 20
Soil Disturbance Factor 26
Total 46
Condition Class . . . . . FAIR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 46
Hits, all Rock 26
Litter 0
Bare Soil 32
Total 100
Hits, Dec. + Inc 6
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
		Cova		Cova	Cova			Cova	
—	—	Cova	—	—	Cova	—	R	Cova	—
11	12	13	14	15	16	17	18	19	20
Cova		Cova	Cova			Cova		Cova	
—	R	L	—	R	—	R	R	Cova	—
21	22	23	24	25	26	27	28	29	30
			Comp						Yuba
R	—	—	L	R	R	R	R	—	—
31	32	33	34	35	36	37	38	39	40
			Cova		Cova		Cova	Cova	
Cova	—	—	R	—	Cova	R	L	Cova	—
41	42	43	44	45	46	47	48	49	50
Cova					Cova	Cova	Cova		Cova
Cova	—	R	R	—	L	—	—	R	Cova
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Epui
Rhtr
OPUN
Stsp
Chna

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Come	•		1-2	
Inc.					
		4=Ib			
Inv.	Cova	☒☐	☒☒☐	47-94 I-10%	
	ECHI		•	1-2	
	Yuba	•		1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		21		21-42	
Hits Dec. & Inc.					
Tot. Rock		13		13-16	
Tot. Litter		0		0-0	
Bare Ground		16		16-32	
Tot. Cool Season					



Pace Transect #93
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 6-12-84 Transect No. 94
Aerial Photo No. 12-16 Place Interval 3 By GALGANO BREWER
Game Mgmt. _____ Vegetative Type 7 FC Slope 3-5
Key Area _____ Soil MU 39 Aspect SOUTH

Location Map:

BEARING N20°E
SOIL PLOT 12-16-3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	10	
5	10	
6	15	
7	15	
8		
9		
10		
Tot		
Ave	1	

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	12	14	26	26	X2=52
Inc.	1	6	7	7	X1=7
Inv.	19	48	67	67	X.5=67
Tot.	32	68	100	100	=13.25
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard B Dated 4-81

VEGETATION

Forage Cover Index 9
Composition 16
Vigor 1
Total 26
Cool Season . . . . . _____
Condition Class . . . . POOR
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 29
Soil Disturbance Factor 20
Total 49
Condition Class . . . . . FAIR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 32
Hits, all Rock 46
Litter 4
Bare Soil 18
Total 100
Hits, Dec. + Inc 13
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
					Fapa				CeGr
—	—	—	—	—	R	—	R	R	—
11	12	13	14	15	16	17	18	19	20
	Come			Stsp					
ArTV	Come	R	R	Stsp	—	R	R	Cefor	R
21	22	23	24	25	26	27	28	29	30
mach	R	R	R	Rhtr	R	R	R	Arar	L
31	32	33	34	35	36	37	38	39	40
									Yucca
R	Come	R	R	L	R	R	R	Ardr	Capa
41	42	43	44	45	46	47	48	49	50
						Juno	Chli	Arpu	Arpa
—	—	R	—	R	R	Juno	—	P	
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Present
Rhtr
LAEI

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavailable
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Fapa			5-10	
	CeGr			2-4	
	Come			3-6	
	StSP			1-2	
	Silv			1-2	
	Pofe			2-4	
Inc.	Artr			4-8	I-5%
	MyAch			2-4	
	Chna			1-2	
	Brto			5-10	
	OPUN			1-2	
	ARIS			1-2	
Inv.	Guti			7-14	
	Chli			3-6	
	Juno			5-10	
	ARLU			2-4	
	PENS			2-4	
	Ardr			1-2	
Rock	Arpa			2-4	
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		16		16-32	
Hits Dec. & Inc.					
Tot. Rock		23		23-46	
Tot. Litter		2		2-4	
Bare Ground		9		9-18	
Tot. Cool Season					



Pace Transect #94
Sanup Plateau

USDA Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 6-12-84 Transect No. 95

Aerial Photo No. 12-16 Place Interval 3 By GALEANO BREWER

Game Mgmt. _____ Vegetative Type 7 FC Slope _____

Key Area _____ Soil MLI 39 Aspect E-SE

Location Map:

BEARING N40°W
SOIL PLOT 12-16-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species	Beard	
1	1	
2	2	
3	2	
4	1	
5	2	
6	2	
7	1	
8	1	
9	1	
10	1	
Tot	14	
Ave	1.4	

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots	Comp	ALLOW Comp	Comp Value
Dec.	4	10	14	14	X2= 28
Inc.	13	4	17	17	X½= 8.5
Inv.	21	48	69	69	X-= 69
Tot.	38	62	100	100	= 36.75
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard 13 Dated 4-81

VEGETATION

Forage Cover Index 11
Composition 11
Vigor 1
Total 23
Cool Season _____
Condition Class POOR
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 17
Soil Disturbance Factor 20
Total 37
Condition Class POOR
Current Trend →

Summary of Hits

Hits, all Plants 38
Hits, all Rock 18
Litter 2
Bare Soil 42
Total 100
Hits, Dec. + Inc 17
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Quto	Quto	Quto	Quto				Artr	—	Artr
—	Quto	—	Quto	R	Guti	—	Orhy	—	L
11	12	13	14	15	16	17	18	19	20
							Pota		
R	R	Artr	—	—	—	R	Pota	—	—
21	22	23	24	25	26	27	28	29	30
		Artr				Pota			
—	—	—	L	R	R.	Poa.	R	R	—
31	32	33	34	35	36	37	38	39	40
Pota						Artr			Atca
—	Guti	—	R	—		—	—	—	—
41	42	43	44	45	46	47	48	49	50
Artr	Epvi								
Opun.	—	—	—	—	—	Guti	Boer	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Yuba

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	ATca	•		1-2	
	Boer	•	••	5-10	
	CeGr		•	1-2	
	Qulo	••		5-10	
Inc.	Artr	•• (35)	••	11-22	7-5% of Inv.
	Epvi	•		1-2	
Inv.	Yuba				
	Guti	••	## =	19-38	
	Pota	••	•	4-8	
	Temu		•	1-2	
	Opun		•	2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		19		19-38	
Hits Dec. & Inc.					
Tot. Rock		9		9-18	
Tot. Litter		1		1-2	
Bare Ground		21		21-42	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavailable
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
S												
Tot.												
C												
Tot.												

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SHALLOW PLATEAU Date 6-13-85 Transect No. 96

Aerial Photo No. 6-8 Place Interval 3 By SHARROW/JORGENSON

Game Mgmt. _____ Vegetative Type 9 FC Slope 3%

Key Area _____ Soil MU 189 Aspect S10E

Location Map:

BEARING S40E
SOIL PLOT 6-8-9

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated at 150 lbs/acre. No evidence of utilization at this time. Vigor variable.

Leaf Measurements (Vigor)

Species	Boer	Shy
1	2.5	5.5
2	1.5	6
3	3	5.5
4	3.5	6
5	1.5	7.5
6	2.5	6
7	2.0	7
8	1.5	7.5
9	3.0	8
10	4	8.5
Tot	25.0	67.5
Ave	2.5	6.8

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	44	48	48	X2=96
Inc.	0	4	4	4	X¼=1
Inv.	10	35	48	48	X=48
Tot.	14	86	100	100	145
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 27
Vigor 4
Total 36
Cool Season . . . . . ____
Condition Class . . . . POOR
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 10
Total 15
Condition Class . . . . . VP
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 14
Hits, all Rock 4
Litter 2
Bare Soil 80
Total 100
Hits, Dec. + Inc 4
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			Juos						
—	—	—	L	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
				Gusa					
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
—	—	—	—	—	Sihy	—	—	Avar	—
31	32	33	34	35	36	37	38	39	40
			Gusa	Gusa					
—	—	—	—	—	—	—	—	L	—
41	42	43	44	45	46	47	48	49	50
	Atca								
—	—	—	—	—	R	—	—	R	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

Present
Befr
Erog

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail- able
	Y	M	Dm.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sihy	4	::	4-8	
	Boer		⊠	16-32	
	Atca	1		1-2	
	Sico		.	1-2	
	Hiri		:	2-4	
Inc.	Spec		.	1-2	
	STSP		.	1-2	
Inv.	Leer		.	1-2	
	Juos	1		1-2	
	Gusa	::	⊠	13-26	
	Copa	:	::	3-6	
	Avis	1	::	6-12	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		7		7-14	
Hits Dec. & Inc.					
Tot. Rock		2		2-4	
Tot. Litter		1		1-2	
Bare Ground		40		40-80	
Tot. Cool Season					



Pace Transect #96
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-13-84 Transect No. 97

Aerial Photo No. 6-8 Place Interval 3 By SHARROW JORGENSON

Game Mgmt. _____ Vegetative Type 1 FC Slope 3%

Key Area _____ Soil M.U. 189 Aspect N 60°E

Location Map:

BEARING TO SOIL PLOT 6-8-6

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated at 150 lbs/Acre, utilization low or not evident.

Leaf Measurements (Vigor)

Species	Boer	Stop
1	3	10.5
2	2	11.
3	1.5	11.5
4	2.5	13
5	2.5	13
6	3.5	12.5
7	3.0	15
8	3.5	16
9	2.5	13.5
10	3.0	17
Tot	27.0	143.0
Ave	2.7	14

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	40	44	44	X2= 88
Inc.	4	2	6	6	X½= 1.5
Inv.	14	36	50	52	X1= 50
Tot.	22	78	100	102	139.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 11

Composition 25

Vigor 5

Total 41

Cool Season _____

Condition Class FAIR →

Current Trend _____

Trend Indicators _____

SOIL STABILITY

Bare Soil Index 6

Soil Disturbance Factor 12

Total 18

Condition Class VP

Current Trend →

Summary of Hits

Hits, all Plants 22

Hits, all Rock 0

Litter 2

Bare Soil 76

Total 100

Hits, Dec. + Inc 8

Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
			Epvi						
—	—	—	L	Boer	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
Rhtr							Juos		
L	—	—	—	—	Boer	—	L	—	—
31	32	33	34	35	36	37	38	39	40
Juos	Juos							Gusa	
L	Siby	—	—	—	—	—	—	L	—
41	42	43	44	45	46	47	48	49	50
	Juos		Yuba						
—	L	L	Yuba	ARIS	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Doc.	Boer	••	M :	17-34	
	Orhy	•	•	1- 2	
	Stco	•	•	2- 4	
	Siby	•	•	2- 4	
Inc.	Epvi	•	•	2-4	
	Rhtr	•		1-2	T-1070
Inv.	Gusa	•	⊠	10-20	
	Bamu	•	•	1- 2	
	Juos	••		4- 8	
	Laar	•	•	1- 0	
	Yuba	•		1- 2	
	Casa	•	•	2- 4	
	ARIS	•	: :	6-12	
Rock					
Tot. Doc.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		11		11-22	
Hits Bas. & Inc.					
Tot. Rock		0		0	
Tot. Litter		1		1-2	
Bare Ground		38		38-76	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #97
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 6-13-84 Transect No. 98

Aerial Photo No. 6-8 Place Interval 3 By SHARROW JORGENSON

Game Mgmt. _____ Vegetative Type 9 FC Slope 3%

Key Area _____ Soil MU 189 Aspect N15°W

Location Map:

BEARING N40°W
SOIL PLOT # 6-8#7

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.660
8								
9								
10								
tot								
avg								

Comments: Production At 175 lbs/acre. Vigor variable.

Leaf Measurements (Vigor)

Species	Hiri	Sihy
1	5.5	10
2	5	7
3	7.5	6.5
4	6.5	11.5
5	6	9
6	7	10
7	8	11.5
8	5.5	11
9	5	7
10	4.5	6
Tot	60.5	89.5
Ave	6.1	9.0

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	12	26	38	38	X2= 76
Inc.	2	28	15	15	X½=3.75
Inv.	8	24	47	47	X.5=47
Tot.	22	78	100	100	+32.75
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 19
Composition 24
Vigor 9
Total 52
Cool Season _____
Condition Class FAIR
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 8
Soil Disturbance Factor 10
Total 18
Condition Class VP
Current Trend →

Summary of Hits

Hits, all Plants 22
Hits, all Rock 0
Litter 10
Bare Soil 68
Total 100
Hits, Dec. + Inc 14
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Boer	—	—	—	—	Boer	—	—	—	—
11	12	13	14	15	16	17	18	19	20
									ATCA
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
		Juos							
—	—	L	L	—	—	—	Heer	—	—
31	32	33	34	35	36	37	38	39	40
		Juos							ATCA
—	—	L	L	—	—	—	—	L	L
41	42	43	44	45	46	47	48	49	50
	Gusa	ATCO				Juos			
—	—	ATCO	Sihy	L	—	L	L	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	5	7	7-14	
	Atca	3	4	4-8	
	Sihy	1	1	5-12	
	Orhy			2-4	
Inc.	Hyg	6	12	10-20	I-15%
Inv.	Leer		3	3-6	
	Posp		1	1-2	
	Juos	3		3-6	
	Gusa	1	4	7-14	
	Lyam		2	2-4	
	ARIS		1	5-10	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		22		11-22	
Hits Dec. & Inc.		14			
Tot. Rock		0		0	
Tot. Litter		10		5-10	
Bare Ground		68		34-68	
Tot. Cool Season					



Pace Transect #98
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-13-84 Transect No. 99
Aerial Photo No. 13-24 Pace Interval 3 By SHARROW
Game Mgmt. _____ Vegetative Type 16 NC Slope 70%
Key Area _____ Soil MU 177 Aspect S12°E

Location Map:

BEARING S 12°E
SOIL PLOT 13-24-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Steep unstable talus. Production estimated at 25 lbs/acre. Utilization noted.

Leaf Measurements (Vigor)

Species	Sitsp
1	12
2	20
3	16
4	24
5	21.5
6	17.5
7	13.
8	13.5
9	18.5
10	20
Tot	176
Ave	17.6

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	3	31	34	34	X½=8.5
Inv.	25	41	66	66	X1=66
Tot.	28	72	100	100	=57.5
Cool Seas.					

CONDITION AND TREND RATING

from Scorecard C Dated 4-8-81

VEGETATION

Forage Cover Index 4
Composition 8
Vigor 10
Total 22
Cool Season _____
Condition Class POOR
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 27
Soil Disturbance Factor 10
Total 37
Condition Class POOR
Current Trend →

Summary of Hits

Hits, all Plants 28
Hits, all Rock 52
Litter 0
Bare Soil 20
Total 100
Hits, Dec. + Inc 3
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
				mosc					
—	R	R	R	Mosc	R	R	R	R	R
11	12	13	14	15	16	17	18	19	20
		Cora		Cora		Cora			Cora
R	R	Cora	—	R	R	Cora	R	R	Cora
21	22	23	24	25	26	27	28	29	30
		Cora	Cora						
R	R	R	R	—	—	R	—	—	R
31	32	33	34	35	36	37	38	39	40
	Chna			Cora		Cora			Cora
R	L	—	R	R	R	—	R	R	R
41	42	43	44	45	46	47	48	49	50
Cora			Yuba			Cora			
R	—	R	Cuba	R	R	L	R	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

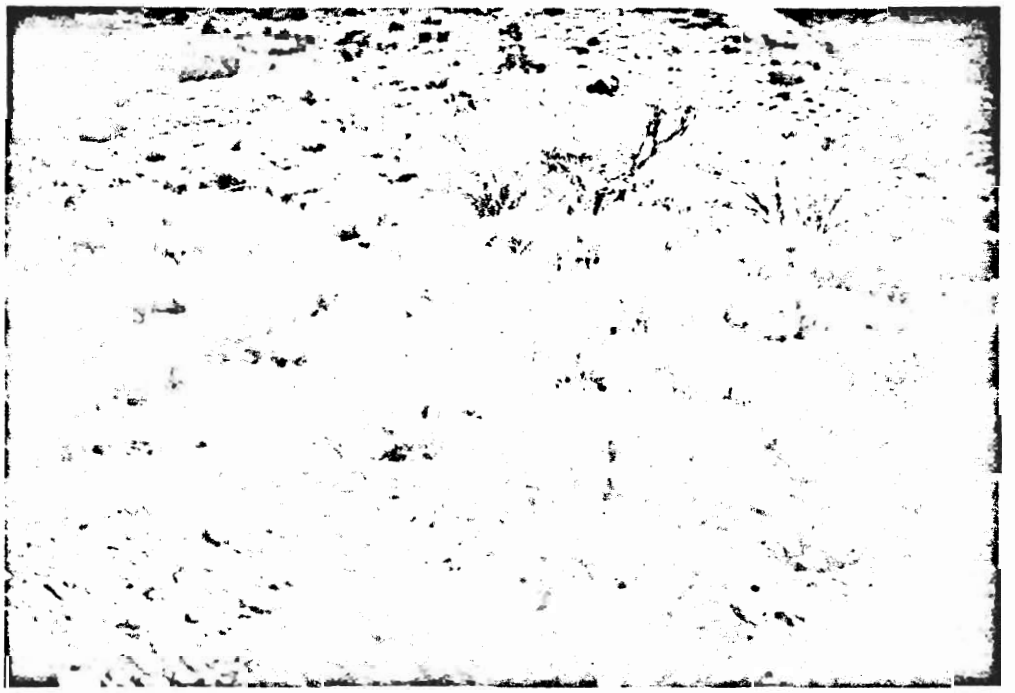
Present
Agut
Come
Enfa
ERIG
OPUN
Fenc

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.					
	Trmu		.2	L-2	
	Cora	[illegible]	[illegible]	35-70	I-10%-71
	S75p		[illegible]	11-22	
Inv.					
	Mosc.	.2		1-2	
	Chna	.2		1-2	
	Yuba	.2		1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		14		14-28	
Hits Dec. & Inc.					
Tot. Rock		26		26-52	
Tot. Litter		Ø		Ø	
Bare Ground		10		10-20	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
					—							
					—							
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #99
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANJP PLATEAU Date 6-13-84 Transect No. 100

Aerial Photo No. 12-16 Place Interval 3 By GALERNO

Game Mgmt. _____ Vegetative Type 16 NC Slope 5-7

Key Area _____ Soil MU 183 Aspect NORTH 56°E

Location Map:

BEARING S 60° W
SOIL PLOT 12-16-5

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.095
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species		
1		
2		
3	10	
4		
5	SAGEBRUSH	
6		
7		
8		
9		
10		
Tot	3	
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 4
Inc.	2	8	10	10	X½=2.5
Inv.	38	50	88	88	X=89
Tot.	40	60	100	100	=81.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-8

VEGETATION

Forage Cover Index 3
Composition 3
Vigor 1
Total 7
Cool Season . . . . . _____
Condition Class . . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 15
Soil Disturbance Factor 15
Total 30
Condition Class . . . . . Poor
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 40
Hits, all Rock 6
Litter 6
Bare Soil 48
Total 100
Hits, Dec. + Inc 2
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
							Cora		Cora
—	—	—	—	Cora	—	—	L	—	Cora
11	12	13	14	15	16	17	18	19	20
					Cora				Cora
Cora	Cora	—	—	R	L	R	—	—	L
21	22	23	24	25	26	27	28	29	30
	Cora	Cora		Cora	Pino		Cora		
R	Cora	L	Cora	Cora	Cora	—	—	—	—
31	32	33	34	35	36	37	38	39	40
				Pino					Cora
—	Cora	—	L	Cora	—	—	—	Cora	Cora
41	42	43	44	45	46	47	48	49	50
					Cora				
L	—	—	Yuba	—	—	Cora	—	—	L
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

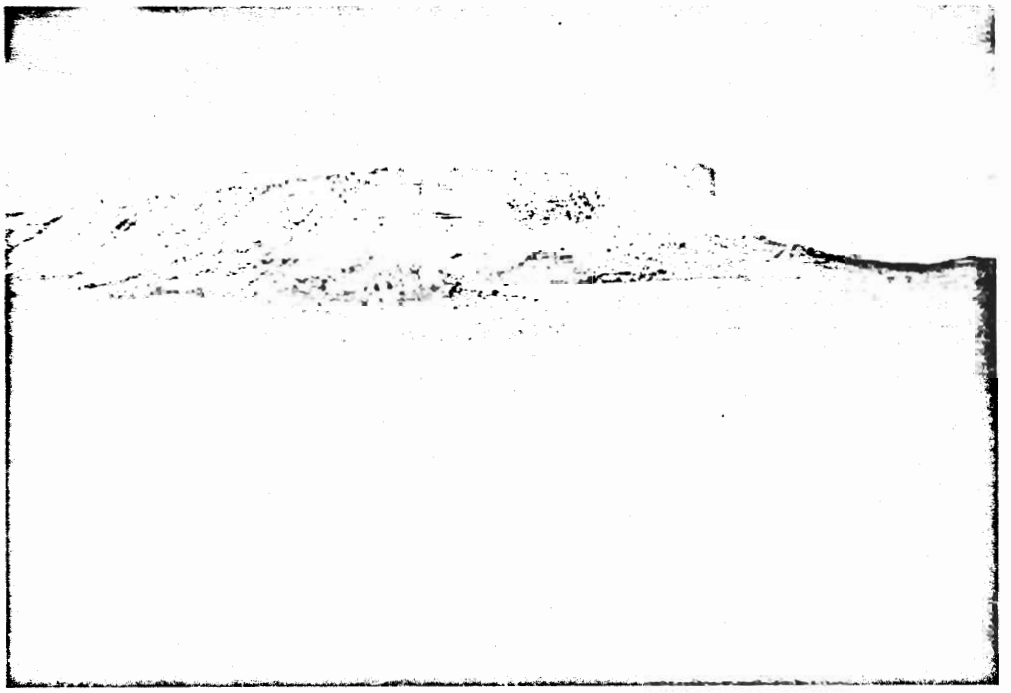
	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Cora		•	1-2	
Inc.	Cora	⊠ ⊡	⊠ ⊠ :	39-78	107 OT → 22
Inv.	Pimo	••	••	2-4	
	Yuba	•	••	4-8	
	Guti		•	1-2	
	Chsa		•	1-2	
	Opun		••	2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		20		20-40	
Hits Dec. & Inc.					
Tot. Rock		3		3-6	
Tot. Litter		3		3-6	
Bare Ground		24		24-48	
Tot. Cool Season					



Pace Transect #100
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 6-13-84 Transect No. 101

Aerial Photo No. 12-15 Pace Interval 3 By GALEANO BREWER

Game Mgmt. _____ Vegetative Type 16 PC Slope 8

Key Area _____ Soil MU 178 Aspect N 60°E

Location Map:

Bearing S60°W
Soil Plot 12-15 #3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	NO	
5	NOT USING	
6	THE ASPEN	
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	4	6	10	10	X=2.5
Inv.	36	54	90	90	X=90
Tot.	40	60	100	100	=92.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 2
Vigor 1
Total 8
Cool Season _____
Condition Class VP
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 17
Soil Disturbance Factor 15
Total 32
Condition Class Poor
Current Trend →

Summary of Hits

Hits, all Plants 40
Hits, all Rock 16
Litter 4
Bare Soil 40
Total 100
Hits, Dec. + Inc 4
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
								Cora	Cora
—	R	opuntia	—	—	Cora	Cora	Cora	—	bare
11	12	13	14	15	16	17	18	19	20
			Cora	Cora					
—	R	Cora	Cora	—	Cora	Cora	—	—	—
21	22	23	24	25	26	27	28	29	30
Cora		Cora							
—	R	Cora	—	Cora	R	R	—	Cora	—
31	32	33	34	35	36	37	38	39	40
Cora						Cora			
—	—	L	—	—	—	L	—	Cora	R
41	42	43	44	45	46	47	48	49	50
			Cora						
—	—	L	L	—	—	Cora	—	R	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

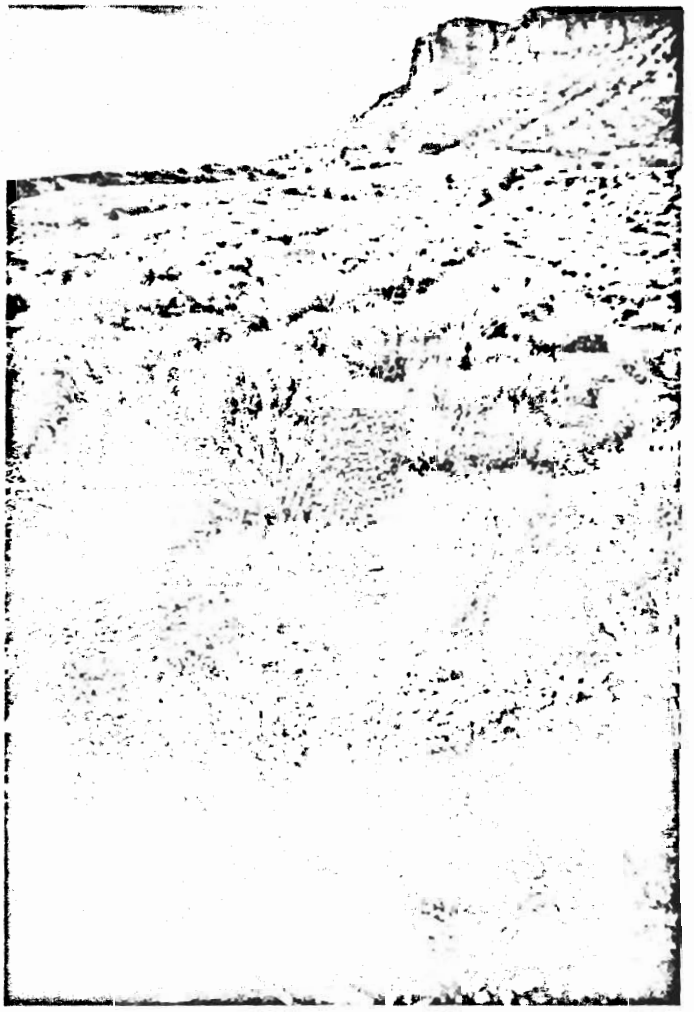
Present
Juos
Pimo
Quga

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
		4-11			
Inc.	Cora	[illegible]	[illegible]	4-6-92	1-10-7-112
INV	opuntia	•	•	3-6	
INV	Prfa		•	1-2	
Inv.					
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		20		20-40	
Hits Dec. & Inc.					
Tot. Rock		8		8-16	
Tot. Litter		2		2-4	
Bare Ground		20		20-40	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
					—							
Tot.					—							
B												
Tot.												
C												
Tot.												



Pace Transect #101
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 6-13-84 Transect No. 102
Aerial Photo No. 12-16 Place Interval 3 By GALEANO BREWER
Game Mgmt. _____ Vegetative Type 16 NC Slope 4
Key Area _____ Soil MU 190 Aspect N 60° E

Location Map:

BEARING N 80 E
SOIL PLOT 12-16 # 6

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species		
1		
2	10	
3	7	
4	ARTR	
5	ARTR	
6	ARTR	
7	ARTR	
8	ARTR	
9	ARTR	
10	ARTR	
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	4	4	4	X2= 8
Inc.	5	5	10	10	X¼=2.5
Inv.	33	63	86	86	X.5=43
Tot.	38	62	100	100	=53.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 7
Composition 4
Vigor 1
Total 12
Cool Season _____
Condition Class VP
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 15
Soil Disturbance Factor 15
Total 30
Condition Class POOR
Current Trend →

Summary of Hits

Hits, all Plants 38
Hits, all Rock 6
Litter 10
Bare Soil 46
Total 100
Hits, Dec. + Inc 5
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Cora				Cora				
—	—	—	—	L	—	Yuba	—	—	—
11	12	13	14	15	16	17	18	19	20
		Cora				Cira	Cora		
—	—	Cora	—	—	L	Cora	Cora	L	—
21	22	23	24	25	26	27	28	29	30
		Cora			Cora		Cora		Cora
R	—	Cora	R	—	—	Cora	Cora	—	Cora
31	32	33	34	35	36	37	38	39	40
Cora			Cora						
L	—	Cora	Cora	Cora	—	L	—	Cora	Opuntia
41	42	43	44	45	46	47	48	49	50
—	R	L	Cora	—	—	Cora	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Cora		••	2-4	
		1-5%			
Inc.	Cora	▣ ▣	▣ ▣	34-68	10% I-7
IN	OPUN	•	▫	9-18	
Inv.	Yuba	•	:	4-8	
	Gut.		:	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		19		19-38	
Hits Dec. & Inc.					
Tot. Rock		3		3-6	
Tot. Litter		5		5-10	
Bare Ground		23		23-46	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #102
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-13-84 Transect No. 103
Aerial Photo No. 6-2 Plot Interval 3 By GALGANO - BREWER
Game Mgmt. _____ Vegetative Type 16 NC Slope 3
Key Area _____ Soil MU 183 Aspect NE

Location Map:

BEARING N60°E
SOIL PLOT 6-2 #1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.660
8								
9								
10								
Tot								
Avg								

Comments: _____

Leaf Measurements (Vigor)

Species		
1		
2		
3	14	
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

NO WOODY SPECIES

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	5	9	14	14	X½= 3.5
Inv.	27	59	86	86	X1= 86
Tot.	32	68	100	100	= 82.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 7
Composition 3
Vigor 1
Total 11
Cool Season . . . . . _____
Condition Class . . . . NP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 17
Soil Disturbance Factor 15
Total 32
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 32
Hits, all Rock 26
Litter 0
Bare Soil 42
Total 100
Hits, Dec. + Inc 5
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
			OPUN						
—	—	—	L	Yuba	Cora	Cora	R	R	Cora
11	12	13	14	15	16	17	18	19	20
R	R	—	—	R	Cora	Cora	R	R	—
21	22	23	24	25	26	27	28	29	30
Cora	—	—	—	Cora	—	R	Cora	R	—
31	32	33	34	35	36	37	38	39	40
R	Cora	Cora	Cora	R	Cora	R	—	Yuba	—
41	42	43	44	45	46	47	48	49	50
—	—	—	EDU1	—	R	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Decs
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
S												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
	3=12				
Inc.	Cora	⊠:	⊠⊠Π	39=78	10% Total
	EPSI	•	•	2=4	
	OPUN	•		1=2	
Inv.	Sabr	.	.	2=4	
	Yuba	••	••	4=8	
	Gutt		••	2=4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		16		16=32	
Hits Dec. & Inc.					
Tot. Rock		13		13=26	
Tot. Litter				0=0	
Bare Ground				21=42	
Tot. Cool Season					

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 6-13-84 Transect No. 104

Aerial Photo No. 6-3 Pace Interval 3 By GALEANO - BREWER

Game Mgmt. _____ Vegetative Type 9 NC Slope 4

Key Area _____ Soil MU 190 Aspect S50°W

Location Map:

BEARING N50°E
SOIL PLOT 6-3#3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.660
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

NO LEAVES TO MEASURE

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	10	10	10	X2= 20
Inc.	6	2	8	8	X¼= 2
Inv.	18	64	82	82	X1= 82
Tot.	24	76	100	100	=60
Cool Seas.					

CONDITION AND TREND RATING

From Scoredcard B Dated 4-81

VEGETATION

Forage Cover Index 4

Composition 7

Vigor 1

Total 12

Cool Season . . . . . _____

Condition Class . . . . VP

Current Trend . . . . →

Trend Indicators _____

SOIL STABILITY

Bare Soil Index 18

Soil Disturbance Factor 15

Total 33

Condition Class . . . . . Poor

Current Trend . . . . . →

Summary of Hits

Hits, all Plants 24

Hits, all Rock 34

Litter 6

Bare Soil 36

Total 102

Hits, Dec. + Inc 6

Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	R	R	—	L	—	R	—
11	12	13	14	15	16	17	18	19	20
R	Guti	Guti	Guti	—	R	—	—	R	Guti
21	22	23	24	25	26	27	28	29	30
					Pimo				
Guti	—	Outu	—	—	—	R	—	R	R
31	32	33	34	35	36	37	38	39	40
L	R	R	R	—	—	R	Guti	R	—
41	42	43	44	45	46	47	48	49	50
	Pimo	Outu						Befr	
—	Guti	Guti	L	Guti	R	—	R	Befr	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Juos

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	CeGr		⁘	5=10	
Inc.	Outu	⁘	⁘	4=8	
Inv.	MoSc		⁘	4=8	
	Guti	⁘⁘	⁘⁘⁘⁘	27=54	
	Aristida		⁘	3=6	
	Pimo	⁘		2=4	
	Vuba		⁘	1=2	
	Befr	•		1=2	
	Trpu		•	1=2	
	Dyac		••	2=4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		12		12=24	
Hits Dec. & Inc.					
Tot. Rock		17		17=34	
Tot. Litter		3		3=6	
Bare Ground		18		18=36	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Od.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-14-84 Transect No. 105
Aerial Photo No. 13-24 Pace Interval 3 By SHARROW JORGENSON
Game Mgmt. _____ Vegetative Type 16 PC Slope 9%
Key Area _____ Soil MV 178 Aspect S 20° E

Location Map:

BEARING N30° W
SOIL PLOT 13-25-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: No forage, NO use observed, well developed pavement which is inhibiting erosion although steps prevalent.

Leaf Measurements (Vigor)

Species		
1		
2	4	
3	4	
4	5	
5	5	
6	4	
7	4	
8	5	
9		
10	3	
Tot	3	
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	4	6	10	10	X¼= 2.5
Inv.	36	54	90	90	X.7= 90
Tot.	40	60	100	100	= 87.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoresheet C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 2
Vigor 1
Total 8
Cool Season _____
Condition Class VP
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 2.4
Soil Disturbance Factor 2.1
Total 4.5
Condition Class FAIR
Current Trend →

Summary of Hits

Hits, all Plants 40
Hits, all Rock 34
Litter 0
Bare Soil 26
Total 100
Hits, Dec. + Inc 4
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Cora							Cora	Cora	Cora
Cora	R	—	—	—	R	—	—	—	—
11	12	13	14	15	16	17	18	19	20
Cora		Cora				Cora			
—	—	—	R	R	R	R	R	R	R
21	22	23	24	25	26	27	28	29	30
Cora						Cora	Cora	Cora	Cora
Cora	R	—	—	R	R	R	—	Cora	—
31	32	33	34	35	36	37	38	39	40
—	Cora	—	R	—	Cora	Cora	R	Cora	Cora
41	42	43	44	45	R	47	48	49	50
—	Yuba	R	Cora	—	Chaa	—	R	R	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

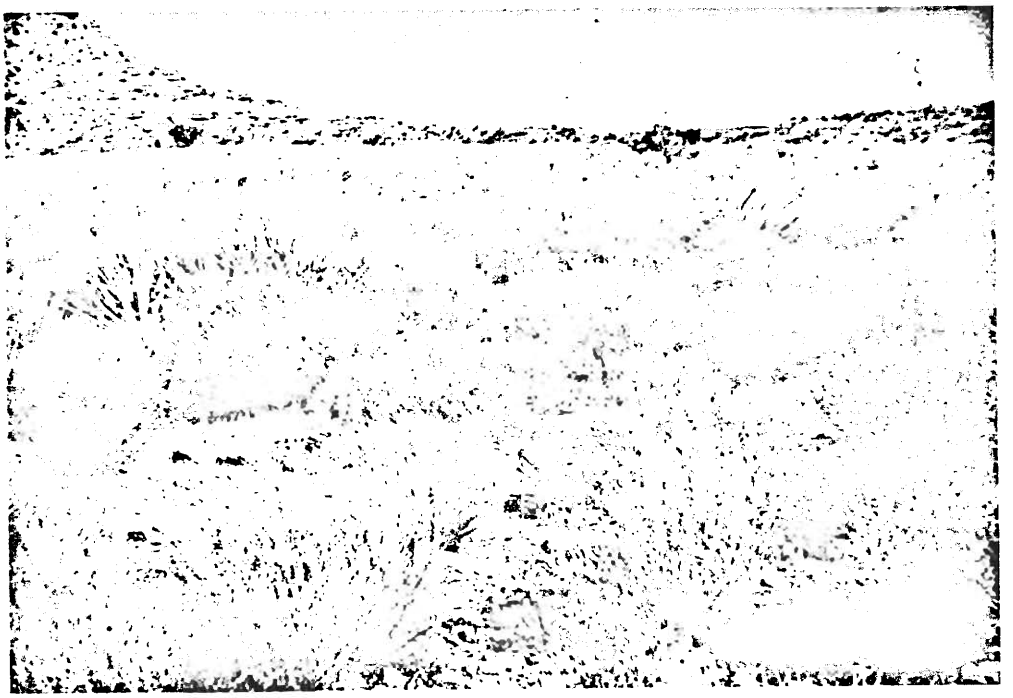
Present
Opac .2%
Thmo 0.1%
opba T.
Epvi T

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.					
		412			
Inv.	Cora	[illegible]	[illegible]	48-96	10%T→10
	Yuba	•		1-2	
	Chaa	•		1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		20		20-40	
Hits Dec. & Inc.					
Tot. Rock		17		17-34	
Tot. Litter		ø		ø	
Bare Ground		13		13-26	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.	•											



Pace Transect #105
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment: SANUP PLATEAU Date: 6-14-84 Transect No.: 106

Aerial Photo No.: 13-25 Place Interval: 3 By: SHARROW JORGENSON

Game Mgmt.: _____ Vegetative Type: 16 NC Slope: 1%

Key Area: _____ Soil: MU 183 Aspect: S30E

Location Map:

BEARING S
SOIL PLOT 13-25-3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Sopai bench, shallow soils; No production and no use. Soils stable even though there are large areas of bare ground. No grasses obs. Transect approx. 2 miles from water.

Leaf Measurements (Vigor)

Species		
1		
2	5	
3	5	
4	5	
5	5	
6	5	
7	5	
8		
9	1	
10	1	
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2=
Inc.	3	7	10	10	X½=2.5
Inv.	27	63	90	90	X1=90
Tot.	30	70	100	100	=92.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard: C Dated: 4-81

VEGETATION

Forage Cover Index: 4
Composition: 2
Vigor: 1
Total: 7
Cool Season: _____
Condition Class: VP
Current Trend: →
Trend Indicators: _____

SOIL STABILITY

Bare Soil Index: 12
Soil Disturbance Factor: 22
Total: 34
Condition Class: Poor
Current Trend: →

Summary of Hits

Hits, all Plants: 30
Hits, all Rock: 14
Litter: 0
Bare Soil: 56
Total: 100
Hits, Dec. + Inc: 3
Cool Season: _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Yuba					Cora	Cora		
—	Yuba	—	—	—	—	Cora	Cora	—	—
11	12	13	14	15	16	17	18	19	20
		Cora	Cora	—	Cora				
—	—	—	Cora	—	—	R	—	—	—
21	22	23	24	25	26	27	28	29	30
					Cora	Cora			
R	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
Thme		Cora		Cora		Cora			
	—	—	—	—	—	Cora	R	—	R
41	42	43	44	45	46	47	48	49	50
		Cora	Cora		Cora				
R	—	—	—	R	—	—	—	R	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS : RIPARIAN - ASPEN

	Sprout		Seedling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

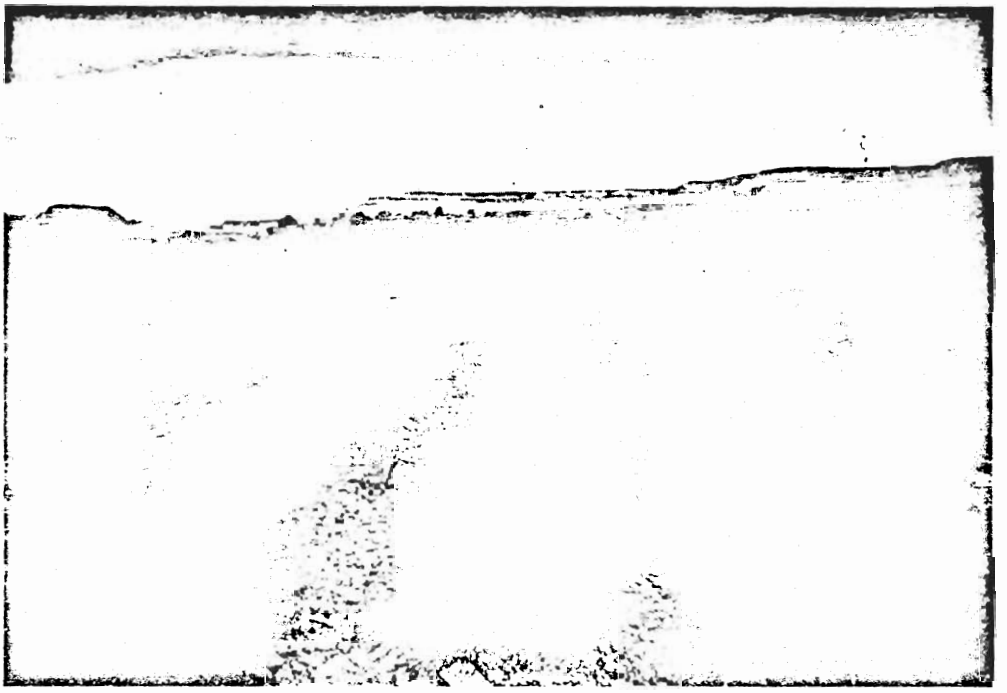
Chrs 1%
Mosc 1%
Epne .3%
Pimo .1%
Juos T

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.					
		I-3			
	Cora	[illegible]	[illegible]	1080	I-10%→15
Inv.	Yuba	.	:	3-6	
	Agut		:	2-4	
	Thmo	.	:	5-10	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		15		15-30	
Hits Dec. & Inc.					
Tot. Rock		7		7-14	
Tot. Litter		Ø		0	
Bare Ground		28		28-56	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Od.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #106
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 6-14-84 Transect No. 107

Aerial Photo No. 13-2 Place Interval ____ By SHARROW JORGENSON

Game Mgmt. ____ Vegetative Type 16 NC Slope 2%

Key Area ____ Soil MU 183 Aspect ____

Location Map:

BEARING N 50° E
SOIL PLOT 13-25# 2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Soil stable due to gentle slopes and rock pavement. No forage and no signs of use.

Leaf Measurements (Vigor)

Species		
1		
2	14	
3	14	
4	15	
5	15	
6	12	
7	12	
8	12	
9		
10	10	
Tot	12	
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2=4
Inc.	5	9	14	14	X½=3.5
Inv.	23	61	84	84	X1=84
Tot.	28	72	100	100	=76.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-8

VEGETATION

Forage Cover Index 7
Composition 4
Vigor 1
Total 12
Cool Season ____
Condition Class VP
Current Trend →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 15
Soil Disturbance Factor 22
Total 37
Condition Class POOR
Current Trend →

Summary of Hits

Hits, all Plants 28
Hits, all Rock 22
Litter 2
Bare Soil 48
Total 100
Hits, Dec. + Inc 5
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
		Cora				Cora	Cora		Cora
P	—	Cora	—	—	—	Cora	—	—	Cora
11	12	13	14	15	16	17	18	19	20
			Cora					Cora	Cora
—	R	—	—	—	—	—	—	L	L
21	22	23	24	25	26	27	28	29	30
				Epne	Thme		Cora		
R	L	—	—	L	—	R	—	—	—
31	32	33	34	35	36	37	38	39	40
			Cora						
—	—	R	Cora	—	—	—	—	—	R
41	42	43	44	45	46	47	48	49	50
				Mosc		Corn		Gosa	
R	R	—	R	L	R	L	—	—	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.					
	Epne	3	3	2-4	
		3-I₂			
	Cora	21	19	38-68	10%I-17
Inv.	Gutl	3	3	3-6	
	Thme	3	3	4-8	
	Yuba		3	2-4	
	Enfa		1	1-2	
	Hesp		1	1-2	
	opac		1	1-2	
	Mosc	1	1	2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		14		14-28	
Hits Dec. & Inc.		11		11-22	
Tot. Rock		1		1-2	
Tot. Litter		24		24-48	
Bare Ground					
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #107
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-14-84 Transect No. 108
Aerial Photo No. 13-2 Place Interval 3 By SHARROLD JORGENSON
Game Mgmt. _____ Vegetative Type 16 NS Slope _____
Key Area _____ Soil MU 183 Aspect S 80 W

Location Map:

BEARING N 70° E
SOIL PLOT 13-25-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Transect approx. .25 miles from water. No forage although use on Cosmos Epvi noted. Soils stable due to gentle slope and rock cover.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	2	4	4	X2=8
Inc.	4	6	10	10	X1=10
Inv.	28	58	86	86	X1=86
Tot.	32	66	100	100	=104
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 4
Vigor 1
Total 10
Cool Season . . . . . ____
Condition Class . . . . VP
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 13
Soil Disturbance Factor 24
Total 37
Condition Class . . . . . Poor
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 32
Hits, all Rock 16
Litter 0
Bare Soil . . . 52
Total 100
Hits, Dec. + Inc 4
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Cora								
—	—	—	R	R	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
Cosa					Cora				Yuba
Cora	—	R	R	—	Sora	—	—	—	—
21	22	23	24	25	26	27	28	29	30
	Cora	Cora	Cora				Cora		
—	Cora	L	Cora	—	—	—	—	—	—
31	32	33	34	35	35	37	38	39	40
	Cora	Cora	Cora	Cora	Cora	Cora			
—	Cora	—	—	—	L	—	—	—	—
41	42	43	44	45	46	47	48	49	50
	Cora							Cora	
—	—	—	—	R	R	R	R	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	63	67	63	69	70
71	72	73	74	75	73	77	78	73	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	95	97	98	92	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Seedling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavoil-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
					—							
Tot.					—							
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Capa		"	2-4	0-15%
Inc.					
		I-4			
	Cora	☑ "	☑☑☐	42-84	I-30 %
Inv.					
	Yuba	•	:	3-6	
	Fenen		:	1-2	
	Gusa		:	1-2	
	Opas		:	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		16		16-32	
Hits Dec. & Inc.					
Tot. Rock		8		8-16	
Tot. Litter		0		0-0	
Bare Ground		26		26-52	
Tot. Cool Season					



Pace Transect #108
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-14-84 Transect No. 109
Aerial Photo No. 13-25 Pace Interval 3 By SHARROD JORGENSON
Game Mgmt. _____ Vegetative Type 16 NC Slope 3%
Key Area _____ Soil MU 183 Aspect S 20° E

Location Map:

BEARING S 10° E
SOIL PLOT 13-25-5

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: No apparent forage production. Use noted on comp. Erosion rate higher in area adjacent to this profile.

Leaf Measurements (Vigor)

Species		
1		
2		
3	16	
4	16	
5	19	
6	19	
7	19	
8	19	
9		
10	10	
Tot	14	
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	0	2	2	X2= 4
Inc.	4	6	10	10	X½= 2.5
Inv.	34	54	88	88	X.1= 8.8
Tot.	40	60	100	100	= 81.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C. Dated 4-81

VEGETATION

Forage Cover Index 8
Composition 3
Vigor 1
Total 12
Cool Season . . . . . ____
Condition Class . . . . VP
Current Trend . . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 11
Soil Disturbance Factor 15
Total 26
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 40
Hits, all Rock 0
Litter 0
Bare Soil 60
Total 100
Hits, Dec. + Inc 6
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Cord		Cord	Cord		Cord				Cord
—	—	—	—	—	Cord	—	—	—	—
11	12	13	14	15	16	17	18	19	20
	Cord					Cord	Cord		
—	—	—	—	—	—	—	Cord	—	—
21	22	23	24	25	26	27	28	29	30
Cord					OPUN		Cord	Cord	Cord
Cord	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
		Cord	Cord		Cord			Yuba	Cord
—	—	Cord	Cord	—		—	—	Yuba	Cord
41	42	43	44	45	46	47	48	49	50
				Yuba		Cord			
—	—	—	—	Yuba	—	Cord	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

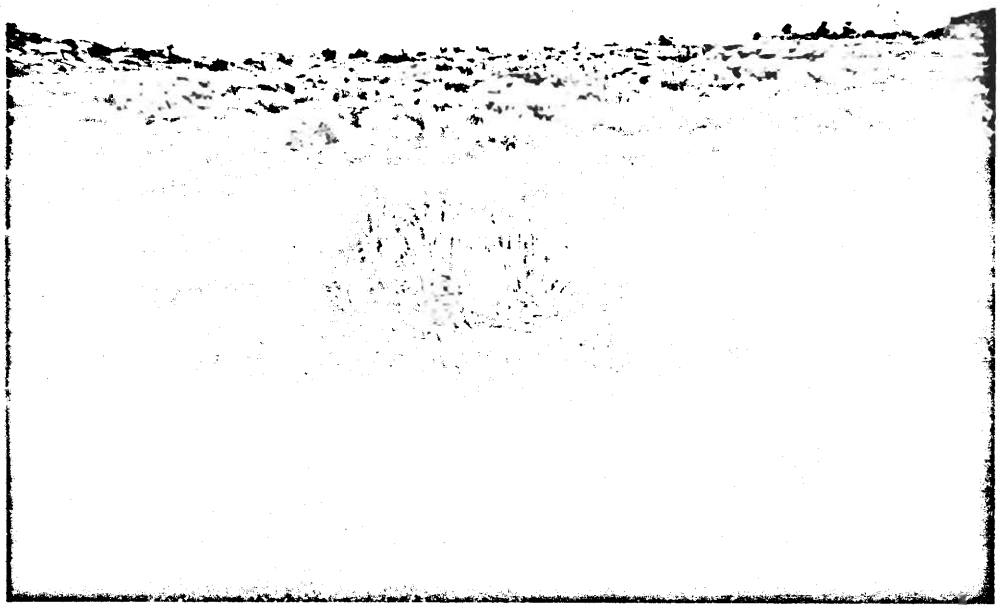
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BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Came	•		1-2	
Inc.					
		T-46			
	Cord	SCH	GTS	37-74	T-16% → 11
Inv.	Opoh	:	:1	5-10	
	Yuba	:	:	3-6	
	Thma	:	:	2-4	
	Opoc	.		1-2	
	Lser		.	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		20		30-40	
Hits Dec. & Inc.					
Tot. Rock		Ø		Ø	
Tot. Litter		Ø		Ø	
Bare Ground		30		30-60	
Tot. Cool Season					



Pace Transect #109
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-14-84 Transect No. 110
Aerial Photo No. 6-4 Place Interval 3 By GALLEANO BREWER
Game Mgmt. _____ Vegetative Type 1 FC Slope 3
Key Area _____ Soil MU 192 Aspect SE

Location Map:

BEARING 530°E
SOIL PLOT 6-4-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Comments: Utilization in this bottom estimated to be 60 to 75 percent. FC classification although existing production (50-75 lbs/acre) is low as compared to potential.

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	10	12	12	X2=24
Inc.	14	60	74	74	X¼=18.5
Inv.	0	14	14	14	X1=14
Tot.	16	84	100	100	56.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 21
Composition 23
Vigor 3
Total 47
Cool Season . . . . . ____
Condition Class . . . . FAIR
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 20
Total 25
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 16
Hits, all Rock 2
Litter 0
Bare Soil . . . 82
Total 100
Hits, Dec. + Inc 16
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
						Spfl	Spfl	Spfl	
11	12	13	14	15	16	17	18	19	20
	Spfl								Spfl
21	22	23	24	25	26	27	28	29	30
	Spfl								
31	32	33	34	35	36	37	38	39	40
								Atca	
41	42	43	Spfl 44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavailable
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
	Boer			5-10	
	Atca	1		1-2	
Inc.	Spfl	4		28-36	
	Spco			9-18	
	Prvi2			2-4	
	Spha			1-2	
Inv.	Guti			1-2	
	Lecr			2-4	
	Bamu			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants	8			8-16	
Hits Dec. & Inc.					
Tot. Rock	1			1-2	
Tot. Litter	91			0-0	
Bare Ground				41-82	
Tot. Cool Season					



Pace Transect #110
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-14-84 Transect No. 111
Aerial Photo No. 6-4 Pace Interval 3 By GRLEANO · BREWER
Game Mgmt. _____ Vegetative Type 9 FC Slope 4
Key Area _____ Soil M11 189 Aspect N60°W

Location Map:

BEARING N45°W
SOIL PLOT 6-4-2

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: High erosion rates (above VT) not as prevalent on this mapping unit. FC classification; reestimated production at 50 to 75 lbs/Acre.

Leaf Measurements (Vigor)

Species	Beer	
1	1	
2	1	
3	2	
4	3	
5	1	
6	1	
7	2	
8	2	
9	1	
10	1	
Tot	15	
Ave	1.5	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	10	32	42	42	X2=84
Inc.	2	0	2	2	X¼=.5
Inv.	12	44	56	56	X.5=56
Tot.	24	76	100	100	+28.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard B Dated 4-81

VEGETATION

Forage Cover Index 8
Composition 23
Vigor 1
Total 32
Cool Season . . . . . _____
Condition Class . . . . Poor
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 7
Soil Disturbance Factor 10
Total 17
Condition Class . . . . . VP
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 24
Hits, all Rock 0
Litter 2
Bare Soil 74
Total 100
Hits, Dec. + Inc 12
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	Erfa	—	—	—	Gutl	—	—	—
11	12	13	14	15	16	17	18	19	20
Beer	—	—	Eulg	—	—	—	Gutl	—	Gutl
21	22	23	24	25	26	27	28	29	30
—	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
Gutl	—	—	—	—	Spco	—	—	—	—
41	42	43	44	45	46	47	48	49	50
—	—	—	—	—	Sihy	Gutl	—	Spco	Beer
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

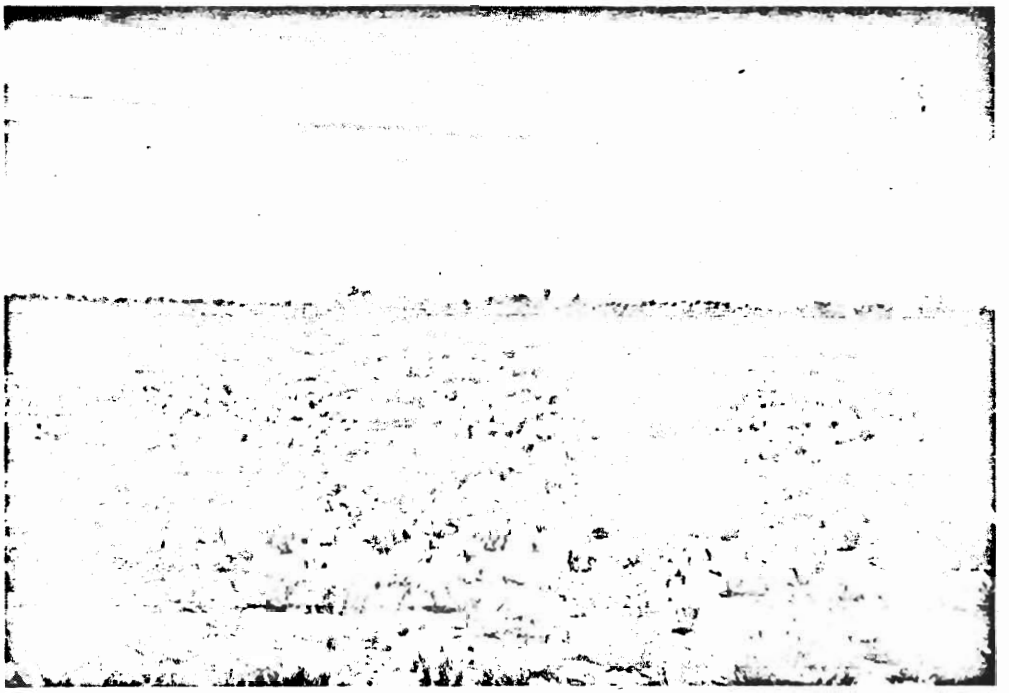
Present
Leer
ARIS
Epvi

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Erfa		|||	3-6
	Eulg	•	•	2-4
	Beer	⁝	⊓	10-20
	Sihy	–	‥	3-6
	Orhy		∴	3-6
Inc.	Spco	•		1-2
Inv.	Gutl	⁝	⊓	24-48
	SPHA		∴	4-8
Rock				
Tot. Dec.				
Tot. Inc.				
Tot. Inv.				
Hits All Plants		12		12-24
Hits Dec. & Inc.				
Tot. Rock		Ø		0-0
Tot. Litter		1		1-2
Bare Ground		37		37-74
Tot. Cool Season				

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavailable
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #111
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 6-14-81 Transect No. 112

Aerial Photo No. 16-4 Place Interval 3 By BREWER

Game Mgmt. _____ Vegetative Type 9 NC Slope 4

Key Area _____ Soil MU 190 Aspect _____

Location Map: BEARING EAST SOIL PLOT 64-3

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Unstable landscape position. On-site soil erosion above tolerance. NC classification. Estimated production less than 25 lbs/acre.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	4	4	4	X2= 8
Inc.	1	9	10	10	X1=2.5
Inv.	7	79	86	86	X.1=8.6
Tot.	8	92	100	100	=75.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard P Dated 4-81

VEGETATION

Forage Cover Index 1

Composition 4

Vigor 0

Total 5

Cool Season . . . . . _____

Condition Class . . . . VP

Current Trend . . . . →

Trend Indicators _____

SOIL STABILITY

Bare Soil Index 4

Soil Disturbance Factor 10

Total 14

Condition Class . . . . . VP

Current Trend . . . . . →

Summary of Hits

Hits, all Plants 8

Hits, all Rock 6

Litter 0

Bare Soil 86

Total 100

Hits, Dec. + Inc 1

Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetatic and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
						Cora			
—	—	—	Rock	—	—	Cora	—	—	—
11	12	13	14	15	16	17	18	19	20
					Pino				
—	—	—	—	—		—	—	—	—
21	22	23	24	25	26	27	28	29	30
—	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
	Gusa								
—		—	—	Rock	Rock	—	—	—	—
41	42	43	44	45	46	47	48	49	50
		Gusa							
—	—		—	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
Base

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
	Sihy		•	1-2	
	Camel		•	1-2	
	I-17				
Inc.	Cora	•	□	8-16	I-10%
Inv.	Sabr		□	8-16	
	Gusa	•	⊠	26-50	
	Yucca	•	•	2-4	
	Pino	•	•	1-2	
	Cholla		•	1-2	
	Opun		•	2-4	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		4		4-8	
Hits Dec. & Inc.					
Tot. Rock		3		3-6	
Tot. Litter		Ø		0-0	
Bare Ground		43		43-86	
Tot. Cool Season					



Pace Transect #112
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 6-14-84 Transect No. 113

Aerial Photo No. 6-4 Place Interval 3 By BREWER

Game Mgmt. _____ Vegetative Type 9 NC Slope 4

Key Area _____ Soil MCL 190 Aspect 90° (E)

Location Map:

BEARING S10°W
SOIL PLOT 6-4-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Comments: NC classification; Forage production essentially zero. Cattle are mainly trailing through this m.u., with light use along trail. These soils are probably inherently unstable. Grass species had extremely poor vigor and were easily pulled up.

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	12	12	12	X2= 24
Inc.	0	10	10	10	X¼= 2.5
Inv.	6	72	76	78	X-1= 76
Tot.	6	94	100	100	= 57.5
Cool Sess.					

CONDITION AND TREND RATING

from Scoredcard B Dated 4-81

VEGETATION

Forage Cover Index 0

Composition 9

Vigor 1

Total 10

Cool Season . . . . . ____

Condition Class . . . . VP

Current Trend . . . . →

Trend Indicators ____

SOIL STABILITY

Bare Soil Index 4

Soil Disturbance Factor 10

Total 14

Condition Class . . . . . VP

Current Trend . . . . . →

Summary of Hits

Hits, all Plants 6

Hits, all Rock 8

Litter 2

Bare Soil 84

Total 100

Hits, Dec. + Inc 0

Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
				Gusa					
—	—	Rock	—	Gusa	—	Rock	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
			Amo						
←	—	—	LITTER	Rock	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
					Juos				
—	—	—	—	—	LITTER	—	—	—	—
41	42	43	44	45	46	47	48	49	50
—	—	—	—	Rock	—	LITTER	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
81	82	83	84	85	86	87	88	89	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
	Boar		⁚	3-6	
	Sihy		⁚	3-6	
Inc.	Quta		•	1-2	
	Cora		⁚	4-8	T-10%
Inv.	Scbr		-	1-2	
	Gusa	•	☒☒☒	31-62	
	Yuba		⁚	2-4	
	Pimo	•		1-2	
	Chalb		⁚	2-4	
	Juos	•		1-2	
	ARIS-1		•	1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		3		3-6	
Hits Dec. & Inc.		4		4-8	
Tot. Rock		1		1-2	
Tot. Litter		42		42-84	
Bare Ground					
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Od.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #113
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 6-15-84 Transect No. 114

Aerial Photo No. 13-25 Place Interval 3 By SHARROW BREWER

Game Mgmt. _____ Vegetative Type 9 FC Slope 3%

Key Area _____ Soil MU 189 Aspect N 70° W

Location Map:

BEARING N 5° W
SOIL PLOT 13-25-6

BASAL AREA - Riparian or Aspen

Number or ze class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Production estimated at 25 lbs/acre. Both Bare and ARIS have low vigor. Erosion rate higher in this area, rilling is common.

Leaf Measurements (Vigor)

Species	Bare	Arar
1	2.5	4.5
2	2.0	5.5
3	1.5	4.0
4	1.5	6.0
5	1.0	5.5
6	2.0	5.5
7	1.5	4.0
8	1.5	6.5
9	3.0	3.0
10	2.0	4.5
Tot	17.5	40.0
Ave	1.8	4.9

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	10	10	10	X2=20
Inc.	0	2	2	2	X½=.5
Inv.	16	72	88	88	X¾=88
Tot.	16	84	100	100	=67.5
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-85

VEGETATION

Forage Cover Index 0
Composition 6
Vigor 2
Total 8
Cool Season _____
Condition Class VP
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 5
Soil Disturbance Factor 10
Total 15
Condition Class VP
Current Trend →

Summary of Hits

Hits, all Plants 16
Hits, all Rock 2
Litter 2
Bare Soil 80
Total 100
Hits, Dec. + Inc 0
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Gusa	Pimo								
11	12	13	14	15	16	17	18	19	20
				Cora					Cora
				Cora					
21	22	23	24	25	26	27	28	29	30
		Pimo		Cora-Bora		Cora			
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

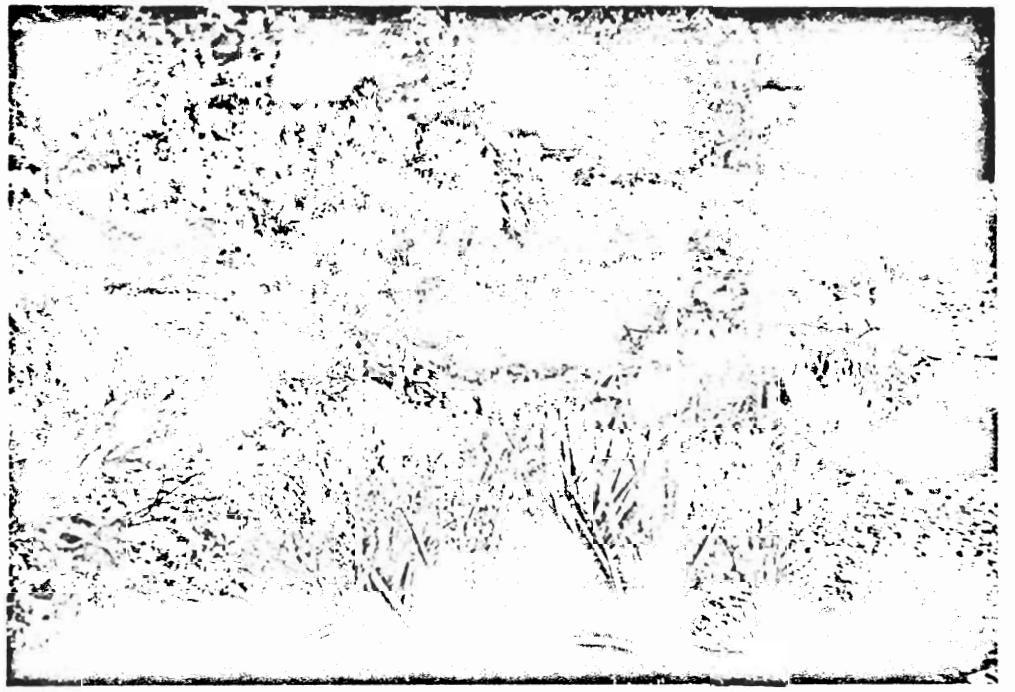
Present
Opac
Same
Epvl

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Segr		:	2-4	
	Boer		:•	3-6	
Inc.	Step		•	1-2	
Inv.	Gusa	•	⊠⊠::	25-50	
	Pimo	:		2-4	
	Yuba	:	::	2-4	
	Cora	:I	::	11-22	
	Opph		•	1-2	
	BRAR		•••	3-6	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		8		8-16	
Hits Dec. & Inc.					
Tot. Rock		1		1-2	
Tot. Litter		1		1-2	
Bare Ground		40		40-80	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavailable
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #114
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 6-15-84 Transect No. 115

Aerial Photo No. 13-25 Place Interval 3 By SHARROW JORGENSON

Game Mgmt. _____ Vegetative Type 1 FC Slope 3%

Key Area _____ Soil MU 189 Aspect S40°W

Location Map:

BEARING N30W
SOIL PLOT 13-25-7

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.025
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.287
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Utilization only apparent on Cone Trailing through Area.

Leaf Measurements (Vigor)

Species		
1		
2		
3	5	
4	6	
5	5	
6	5	
7	5	
8	5	
9	5	
10	6	
Tot	52	
Ave	5	

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	2	8	10	10	X2= 20
Inc.	2	2	4	4	X¼= 1
Inv.	22	64	86	86	X-1= 86
Tot.	26	74	100	100	— 65
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 5
Composition 6
Vigor 0
Total 11
Cool Season ____
Condition Class VP
Current Trend →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 10
Soil Disturbance Factor 10
Total 20
Condition Class VP
Current Trend →

Summary of Hits

Hits, all Plants 26
Hits, all Rock 12
Litter 0
Bare Soil 62
Total 100
Hits, Dec. + Inc 4
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
		Cora							Sabr
—	—	Cora	—	—	—	—	—	—	Sabr
11	12	13	14	15	16	17	18	19	20
	Suas		Sabr		Quun				
—	—	R	—	—	—	—	—	—	—
21	22	23	24	25	26	27	28	29	30
Sabr			Sabr				Come	Sabr	
—	—	—	—	—	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
		CHRY					Sabr		Sabr
—	—	R	—	—	—	—	Sabr	R	—
41	42	43	44	45	46	47	48	49	50
							Suas		
—	R	R	—	—	—	R	—	—	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
- Poc
- Opph

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Cegr		::	4-8	
	Come	•		1-2	
Inc.					
	Epvi		•	1-2	
	Quun	•		1-2	
Inv.	Gusa		::	6-12	
	Thmo		::	6-12	
	Eros		::	8-16	
	Sabr	11	::	13-26	
	Suas	:		2-4	
	Chry	•		1-2	
	UNK		:	2-4	
	Yuba		•	1-2	
Rock	Cora	•	•••	4-8	
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		13			
Hits Dec. & Inc.					
Tot. Rock		6		6-13	
Tot. Litter		Ø		Ø	
Bare Ground		31		62	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #115
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 6-15-84 Transect No. 116

Aerial Photo No. 6-2 Place Interval 3 By GALLEANO BREWER

Game Mgmt. _____ Vegetative Type 1. FC Slope 5

Key Area _____ Soil MU 192 Aspect N30°E

Location Map:

BEARING N30E.
SOIL PLOT 6-2-2

BASAL AREA - Riparian or Aspen

Number or size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Estimated utilization in excess of 50 percent, FC classification

Leaf Measurements (Vigor)

Species	Hija	
1	4	
2	4	
3	3½	
4	4	
5	4	
6	3½	
7	6	
8	5½	
9	2½	
10	4	
Tot	40	
Ave	4.0	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	14	18	18	X2=36
Inc.	4	10	14	14	X2.5=35
Inv.	14	54	68	68	X1=68
Tot.	22	78	100	100	=139
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 11
Composition 13
Vigor 5
Total 29
Cool Season _____
Condition Class POOR
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 8
Soil Disturbance Factor 20
Total 28
Condition Class POOR
Current Trend →

Summary of Hits

Hits, all Plants 22
Hits, all Rock 4
Litter 4
Bare Soil 70
Total 100
Hits, Dec. + Inc 8
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE 227

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
R	—	Gutl	—	—	—	Hija	R	—	—
11	12	13	14	15	16	17	18	19	20
—	Gutl	—	Boar	Spco	Gutl	—	Juas	—	—
21	22	23	24	25	26	27	28	29	30
L	—	—	—	—	Gutl	—	—	—	—
31	32	33	34	35	36	37	38	39	40
—	—	Gutl	—	—	—	—	—	—	ARIS
41	42	43	44	45	46	47	48	49	50
—	—	—	Boar	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

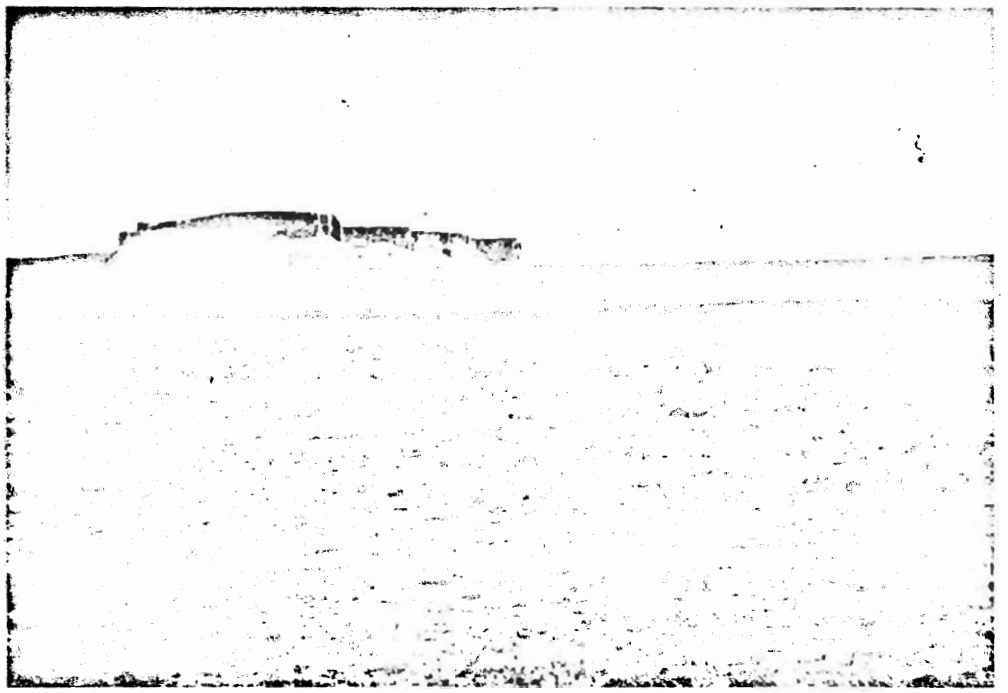
Present
Prfa

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	1	1	5-10	
	Atca		1	4-8	
Inc.	Spco	1	1	5-10	
	Hija	1	1	2-4	I-15%
Inv.	Gutl	1	1	21-42	
	Chla		1	3-6	
	ARIS	1	1	8-16	
	Sph2		1	1-2	
	Juas	1		1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		11		11-22	
Hits Dec. & Inc.					
Tot. Rock		2		2-4	
Tot. Litter		2		2-4	
Bare Ground		35		35-70	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #116
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 6-15-84 Transect No. 117

Aerial Photo No. 6-3 Place Interval 3 By GALEANO - BREWER

Game Mgmt. _____ Vegetative Type 1. FC Slope _____

Key Area _____ Soil MU 192 Aspect _____

Location Map:

BEARING N45°E
SOIL PLOT 6-3-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Utilization estimated to be between 60+70%. Vigor not measured do to the lack of mature plants.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	6	18	24	24	X= 4.6
Inc.	2	10	12	12	X= 3
Inv.	10	54	64	64	X= 1.64
Tot.	18	82	100	100	= 13
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 11
Composition 16
Vigor 3
Total 30
Cool Season . . . . .
Condition Class . . . . POOR
Current Trend . . . . →
Trend Indicators

SOIL STABILITY

Bare Soil Index 6
Soil Disturbance Factor 20
Total 26
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 18
Hits, all Rock 2
Litter 2
Bare Soil 2
Total 78
Hits, Dec. + Inc 100
Cool Season 8

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail. ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Guti	—	—	—	—	—	—	—	—	—
11	12	13	14	15	16	17	18	19	20
—	—	—	Boer	Spfl	—	—	Sabr	—	—
21	22	23	24	25	26	27	28	29	30
—	—	Sabr	—	L	—	—	—	—	—
31	32	33	34	35	36	37	38	39	40
—	Boer	—	Sabr	—	—	JC	—	—	Sabr
41	42	43	44	45	46	47	48	49	50
—	—	—	—	—	—	—	—	—	Boer
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
	Boer	5	5	5-16	
	Silky		3	3-6	
	ocky		1	1-2	
Inc.	Spfl	1	5	6-12	
Inv.	Guti	1	7	7-14	
	Spha		8	8-16	
	Sabr	2	11	11-22	
	Aris		6	6-12	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		9		9-18	
Hits Dec. & Inc.					
Tot. Rock		1		1-2	
Tot. Litter		1		1-2	
Bare Ground		39		39-78	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #117
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment _____ Date 8-29-84 Transect No. P-118

Aerial Photo No. 3-7 Pace Interval 3 By BREWER, BROWN

Game Mgmt. _____ Vegetative Type 1 FC Slope 4

Key Area _____ Soil M11 182 Aspect N

Location Map:

BEARING S40°W
SOIL POT 3-7-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.660
8								
9								
10								
tot								
avg								

Comments: Estimated production between 350-400 lbs/Acre.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	32	60	82	82	X2=164
Inc.	2	0	2	2	X=5
Inv.	2	14	16	16	X=16
Tot.	26	74	100	100	= 149
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 32
Composition 45
Vigor 0
Total 87
Cool Season _____
Condition Class E
Current Trend →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 8
Soil Disturbance Factor 5
Total 58
Condition Class Fair
Current Trend →

Summary of Hits

Hits, all Plants 26
Hits, all Rock 2
Litter 2
Bare Soil 70
Total 100
Hits, Dec. + Inc 24
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation-type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	—	—	—	—	—	—	Spor
11	12	13	14	15	16	17	18	19	20
Spor	—	—	—	Spor	—	—	—	—	Spor
21	22	23	24	25	26	27	28	29	30
									Eul2
Stca	—	—	—	—	—	Rock	Litter	Boer	Eul2
31	32	33	34	35	36	37	38	39	Eul2
									Eul2
Mupo	—	—	—	—	—	—	—	—	Eul2
41	42	43	44	45	46	47	48	49	50
—	—	Spor	—	Spor	Boer	—	—	Boer	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present

Cora

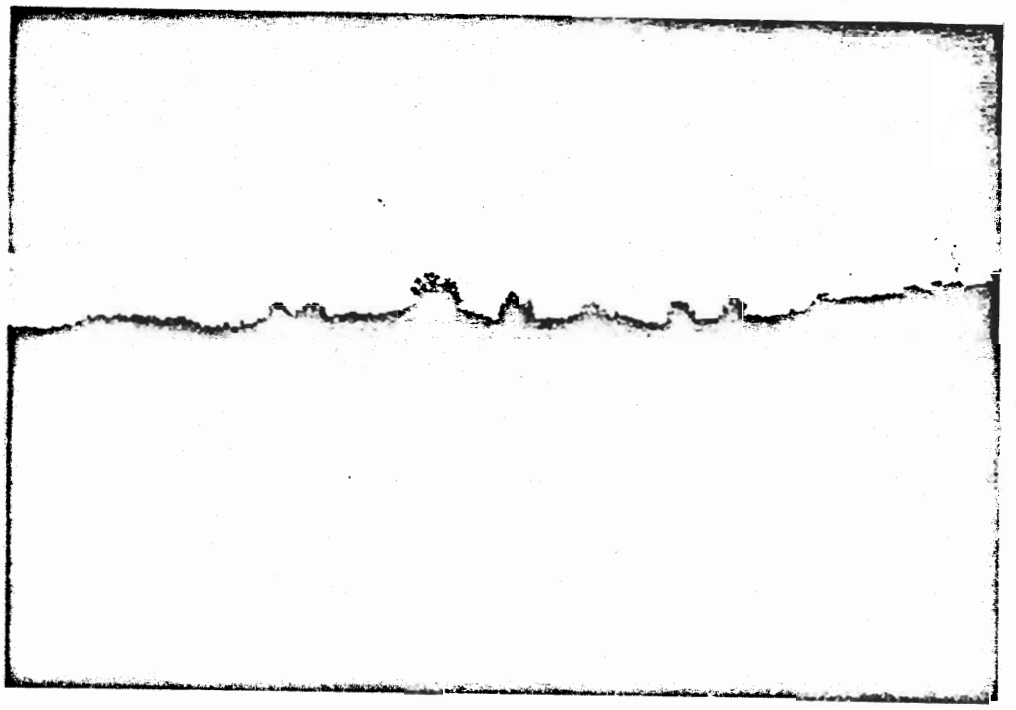
Yuba

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	11	𝍸	23-46	
	Stca	•	𝍸	10-20	
	Ittca		•	1-2	
	Mupo	•	•	2-4	
	Eul'a	•	•	3-6	
	Orhy		•	1-2	
	Sihy		•	1-2	
Inc.					
	SPOR	•			
Inv.					
	LIGE	•		1-2	
	APIS		•	2-4	
	SPHA		𝍸	5-10	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		13		13-26	
Hits Dec. & Inc.					
Tot. Rock		1		1-2	
Tot. Litter		1		1-2	
Bare Ground		35		35-70	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect # 118

Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SAWUP - RELICT Date 8-29-84 Transect No. P-119

Aerial Photo No. 3-6 Place Interval 3 By GCANEAD

Game Mgmt. _____ Vegetative Type 1. PC Slope 0-5

Key Area _____ Soil MU 182 Aspect _____

Location Map:

BEARING S 40°E ?
SOIL PLOT 3-6-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Production
1 - 0
2 - 2
3 - 0
4 - 52
5 - 0
6 - 0
7 - 8
8 - 7
9 - 70
10 - 56
195g x .40 = 78 x 10 or 780 lbs/Acre

Comments: _____

Leaf Measurements (Vigor)

Species	Poor	
1	3 1/2	
2	3	
3	2 1/2	
4	3	
5	2 1/2	
6	3 1/2	
7	3 1/4	
8	3 3/4	
9	2 1/4	
10	2 1/4	
Tot	28.50	
Ave	3.04	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	40	26	66	66	X2=132
Inc.	0	2	2	2	X=2.50
Inv.	8	24	32	32	X=15.52
Tot.	48	52	100	100	150
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4 - 81

VEGETATION

Forage Cover Index 36
Composition 36
Vigor 4
Total 76
Cool Season . . . . . _____
Condition Class . . . . GOOD
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 14
Soil Disturbance Factor 50
Total 64
Condition Class . . . . . Good
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 48
Hits, all Rock 0
Litter 2
Bare Soil 50
Total 100
Hits, Dec. + Inc _____
Cool Season _____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
ARIS	—	—	—	Boer	Boer	—	—	—	Boer
11	12	13	14	15	16	17	18	19	20
—	—	—	Gypa	Boer	Boer	Stco	—	—	Boer
21	22	23	24	25	26	27	28	29	30
					Arca				
Boer	Sihy	Boer	Sihy	—	Atco	Sihy	—	Boer	—
31	32	33	34	35	36	37	38	39	40
—	—	—	Gyph	Gyph	Part	—	—	—	—
41	42	43	44	45	46	47	48	49	50
			Atco						
Boer	Boer	—	Atco	Boer	—	—	Boer	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

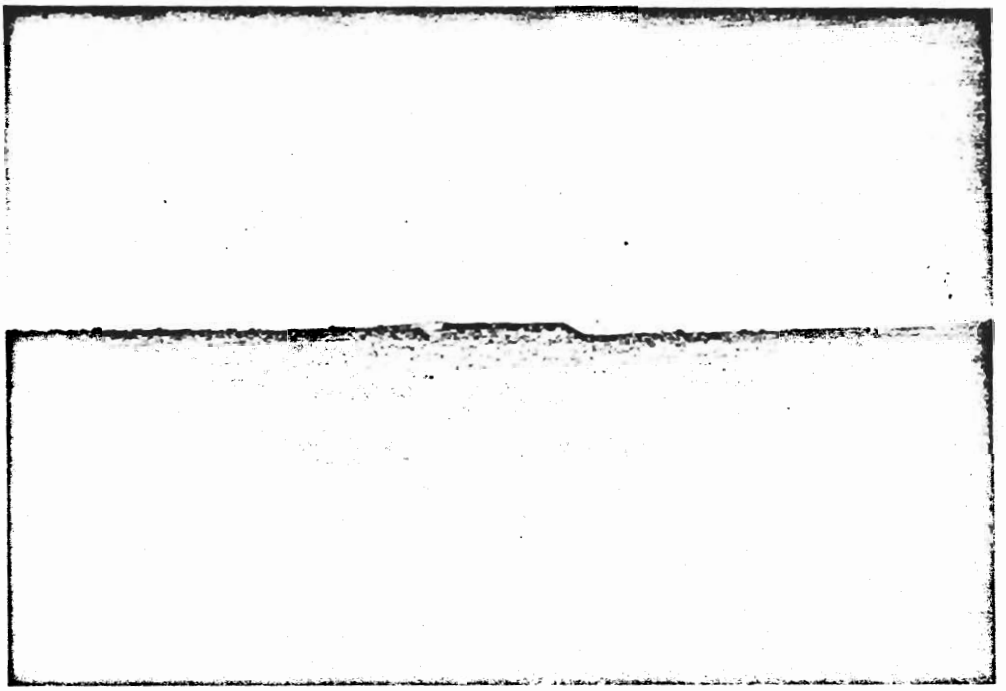
Present
Brtc
Eulg
EPNE
SPHA
Lile
Stsp

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer			21-42	
	Stco	•	•	3-6	
	Sihy	••		3-6	
	Atco	•		2-4	
	Mupa	•	•	1-2	
	Gyph	••	•	3-6	
Inc.	Spor		•	1-2	
Inv.	ARIS	•	••	4-8	
	Gapi		•1	5-10	
	Gybo	•	•	2-4	
	Lber	•		2-4	
	Portuca	•		1-2	
	Cora		•	1-2	
	Gutl		•	12	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		24		24-48	
Hits Dec. & Inc.		20			
Tot. Rock		Ø		Ø	
Tot. Litter		1		1-2	
Bare Ground		25		25-50	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect # 119

Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWTOOTH PLATEAU Date 8-29-84 Transect No. 120
Aerial Photo No. 9-2 Pace Interval 3 By GALEANO BREWER
Game Mgmt. Vegetative Type 16 NC Slope 2
Key Area Soil MU 183 Aspect E

Location Map:

BEARING
Soil PLOT 9-2-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.025
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.660
8								
9								
10								
tot								
avg								

Production
1-0
2-0
3-0
4-0
5-0
6-2
7-0
8-1
9-0
10-0

3grams x .4 = 1.20 x 10 or 12 lbs/AC

Comments: Typical COPA site with essentially no forage production although Eula regeneration is good.

Leaf Measurements (Vigor)

Species	Cerby	
1	10½	
2	9½	
3	7½	
4	7½	
5	8	
6	10	
7	9½	
8	9½	
9	9½	
10	11½	
Tot	91	
Ave	9	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	20	24	24	X2=48
Inc.	2	4	6	6	X¼=1.5
Inv.	30	50	70	70	X1=70
Tot.	36	74	100	100	=20.50
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard _____ Dated _____

VEGETATION

Forage Cover Index 8
Composition 14
Vigor 8
Total 30
Cool Season . . . . .
Condition Class . . . . POOR
Current Trend . . . . →
Trend Indicators

SOIL STABILITY

Bare Soil Index 12
Soil Disturbance Factor 40
Total 52
Condition Class . . . . . Fair
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 26
Hits, all Rock 18
Litter 0
Bare Soil 56
Total 100
Hits, Dec. + Inc 6
Cool Season

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	—	—	Cora	Eula	—	—	R	R	R
11	12	13	14	15	16	17	18	19	20
	R	Cora	Cora	—	—	R	—	—	Cora
21	22	23	24	25	26	27	28	29	30
R	Cora	—	Cora	—	R	—	R	—	—
31	32	33	34	35	36	37	38	39	40
—	—	—	Orhy	Cora	—	Cora	R	—	—
41	42	43	44	45	46	47	48	49	50
—	—	—	—	—	Cora	—	—	—	Cora
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Present
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EPHE
Lece
Mupo

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

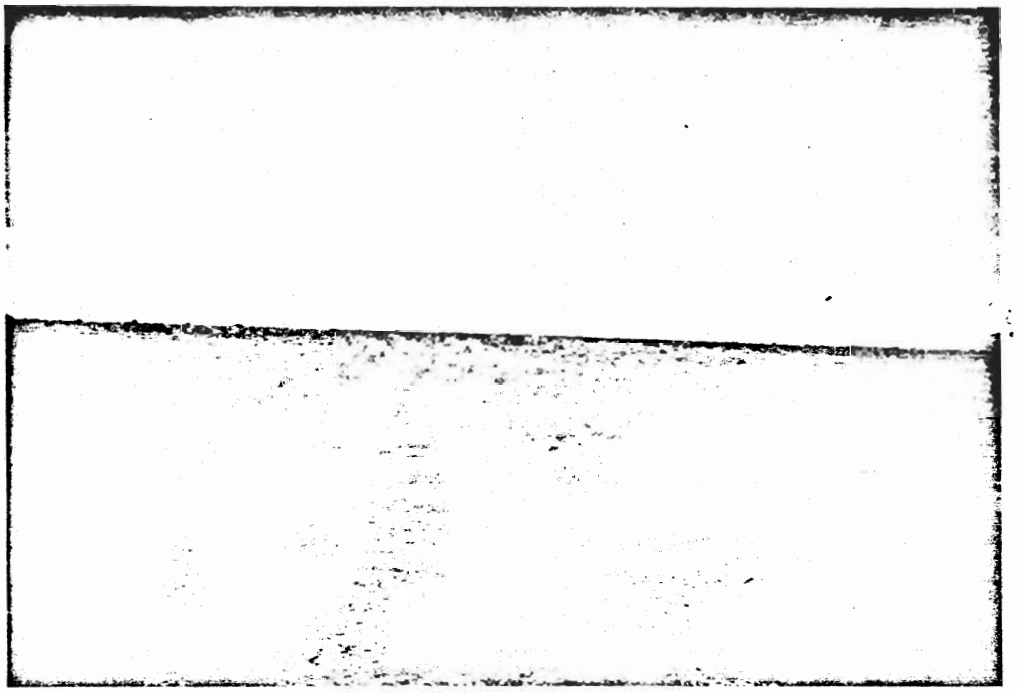
	Sprout		Sapling			Mature	Decad
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Eula	•	::	5-10	
	orhy	•	::	5-10	
	stsp		:	2-4	
Inc.	Cora	•	:	3-6	I-10 → INV
Inv.	Marhilus		•	1-2	
	SPHA		::	5-10	
	GUTI		•	1-2	
	ERIG		:	3-6	
	Yucc		•	1-2	
	Cora	☒	☒::	24-48	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		13		13-26	
Hits Dec. & Inc.					
Tot. Rock		9		9-18	
Tot. Litter		Ø		Ø	
Bare Ground		28		28-56	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect # 120

Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 8-29-84 Transect No. 121
Aerial Photo No. 15-5 Place Interval ____ By Galenno - Brewer
Game Mgmt. ____ Vegetative Type 16 NC Slope 2
Key Area ____ Soil M.U. 183 Aspect S45°E.

Location Map:

BEARING
SOIL PLOT 15-5-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: ____

Leaf Measurements (Vigor)

Species	Stem	
1	4x2	
2	8	
3	3	
4	11	
5	10	
6	13	
7	8	
8	9	
9	12	
10	9	
Tot	87/10	
Ave	9	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	4	12	16	16	X2= 32
Inc.	2	2	4	4	X¼= 1
Inv.	28	52	80	80	X-1= -80
Tot.	34	66	100	100	-47
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard ____ Dated ____

VEGETATION

Forage Cover Index 8
Composition 10
Vigor 8
Total 26
Cool Season . . . . . ____
Condition Class . . . . P
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 21
Soil Disturbance Factor 40
Total 61
Condition Class . . . . . Good
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 34
Hits, all Rock 34
Litter 2
Bare Soil 30
Total 100
Hits, Dec. + Inc 6
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	Cora	R	R	R	—	Cora	R	R	R
11	12	13	14	15	16	17	18	19	20
—	Gutl	Cora	—	—	R	—	—	Hgut	Cora
21	22	23	24	25	26	27	28	29	30
Astrag	Hgut	R	R	R	—	Gutl	—	Hgut	Hgut
31	32	33	34	35	36	37	38	39	40
Cora	—	R	—	—	Cora	R	R	R	—
41	42	43	44	45	46	47	48	49	50
—	Cora	R	R	Cora	—	Stco	R	Gutl	R
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Decs
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

Present
TREC
Yuba
Thmo

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Stco	•	•	2-4	
	Sihy		••	3-6	
	— —	•	•	3-6	
Inc.	Cora	•		2-4	
Inv.	Astraglus	•		1-2	
	Gutl	••	⊏	8-16	
	Agut	••	⊏	10-20	
	Hgut		•	1-2	
	GRIG		••	2-4	
	SPHA		••	3-6	
	Cora	□	□	15-30	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		17		17-34	
Hits Dec. & Inc.					
Tot. Rock		17		17-34	
Tot. Litter		1		1-2	
Bare Ground		15		15-30	
Tot. Cool Season					



Pace Transect # 121

Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP RELICT Date 8-30-84 Transect No. 122
Aerial Photo No. 4-9 Place Interval 3 By GALEANO BIEGER
Game Mgmt: _____ Vegetative Type 1 PG Slope 0-5
Key Area _____ Soil MU 192 Aspect 270

Location Map:

BEARING
SOIL PLOT 4-9-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.287
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species	Boer	
1	2½	
2	2½	
3	3½	
4	3½	
5	2½	
6	3	
7	3	
8	3	
9	3	
10	3	
Tot	32.50	
Ave	3.00	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	32	32	64	64	X2= 128
Inc.	16	16	26	26	X1= 58
Inv.	2	2	10	10	X.1= 1
Tot.	50	50	100	100	+125.00
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 36
Composition 41
Vigor 4
Total 81
Cool Season . . . . . ____
Condition Class . . . . E
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 15
Soil Disturbance Factor 50
Total 65
Condition Class . . . . . Good
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 50
Hits, all Rock 0
Litter 4
Bare Soil 46
Total 100
Hits, Dec. + Inc 32
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Stco	Stco	—	—	—	—	Boer	—	Stco	Boer
11	12	13	14	15	16	17	18	19	20
—	—	—	Boer	Boer	—	—	Stco	—	—
21	22	23	24	25	26	27	28	29	30
Sihy	Boer	—	—	[illegible]	—	Boer	—	Stsp	Yuba
31	32	33	34	35	36	37	38	39	40
—	Stco	Boer	Stsp	EPHE	4	Yuba	—	OPUN	—
41	42	43	44	45	46	47	48	49	50
—	Boer	EPHE	Sihy	Gula	—	—	—	—	Boer
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

PRODUCTION

1 - 44
2 - 4
3 - 14
4 - 24
5 - 0
6 - 16
7 - 6
8 - 14
9 - 36
10 - 0

158

Present
Bagr.

632 #/Ac.

Assume 90% dry

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Stco	::	::	7-14	
	Boer			18-36	
	Sihy	:	:	4-8	
	Atca		•	1-2	
	Gula	•	•	2-4	
Inc.					
	Stsp	::	::	7-14	
	Boer		:	2-4	
	EPHE	:	:	4-8	
Inv.	Gutt		•	1-2	
	Lgar	:		1-2	
	Yucc	:		2-4	
	OPUN	•		1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		25		25-50	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter		2		2-4	
Bare Ground					
Tot. Cool Season		23		23-46	

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP RELICT Date 8-30-84 Transect No. 123
Aerial Photo No. 4-8 Place Interval 3 By GALEANO
Game Mgmt. _____ Vegetative Type 1. PC Slope _____
Key Area _____ Soil MU 192. Aspect _____

Location Map:

BEARING
SOIL PLOT 4-8#2.

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Production
1-0
2-3
3-38
4-12
5-18
6-14
7-2
8-26
9-0
10-18

131g x .40 = 52.40 x 10 or 524 lbs/acre

Comments: _____

Leaf Measurements (Vigor)

Species	Bear	
1	2 1/2	
2	2 1/2	
3	2	
4	3	
5	2 1/2	
6	3	
7	3	
8	2	
9	3	
10	2 1/2	
Tot	36	
Ave	3.6	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	36	44	80	80	X2=160
Inc.	4	0	4	4	X=4.0
Inv.	10	6	16	16	X=16
Tot.	50	50	100	100	180
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard _____ Dated _____

VEGETATION

Forage Cover Index 36
Composition 44
Vigor 4
Total 84
Cool Season . . . . . ____
Condition Class . . . . E
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 17
Soil Disturbance Factor . 50
Total 67
Condition Class . . . . . Good
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 50
Hits, all Rock 0
Litter 8
Bare Soil 42
Total 100
Hits, Dec. + Inc ____
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	Boer	∠	Boer	—	—	Boer	—	Boer	Stsp
11	12	13	14	15	16	17	18	19	20
Boer	—	—	Boer	Boer	—	Boer	Orhy	Boer	Boer
21	22	23	24	25	26	27	28	29	30
—	Orhy		—	—	—	—	—	Boer	—
31	32	33	34	35	36	37	38	39	40
Boer	Boer	—	—	—	Stsp	Boer	—	Guti	Boer
41	42	43	44	45	46	47	45	49	50
							Yucc		
—	—	Guti	Boer	Guti	—	∠	Yucc	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

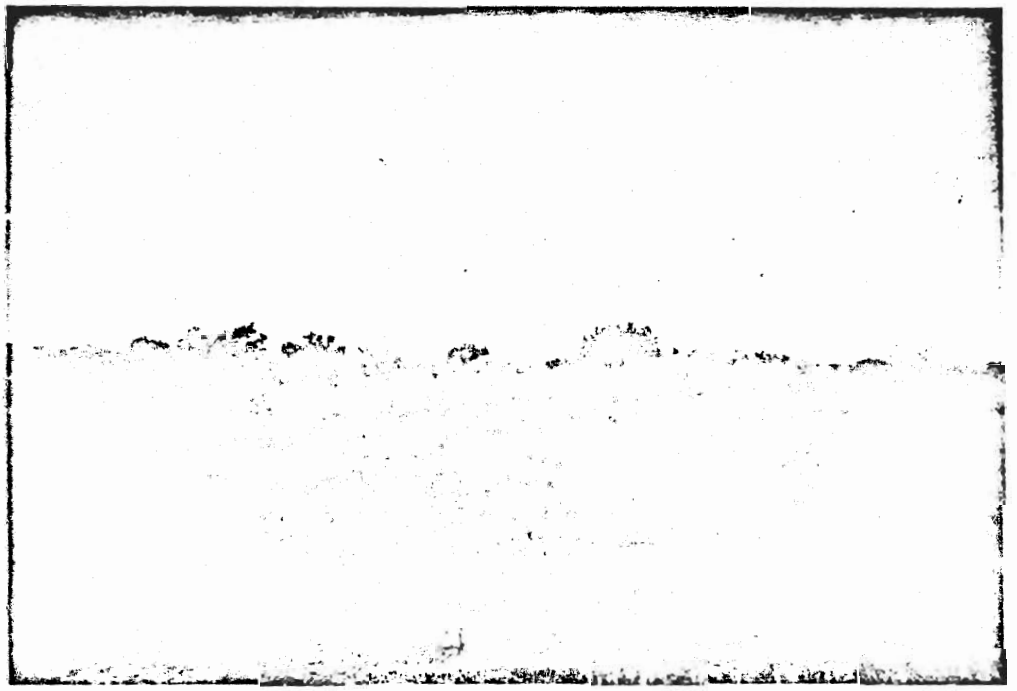
	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Boer	HT	HT	32-64	
	Sihy			2-4	
	Stco			3-6	
	Orhy			2-4	
	Fula			1-2	
Inc.					
	Boer			1-2	
	Stsp			1-2	
Inv.	SPHA			1-2	
	OPUN			1-2	
	GUTI			5-10	
	Yucc			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		25		25-50	
Hits Dec. & Inc.					
Tot. Rock					
Tot. Litter		4		4-8	
Bare Ground		21		21-42	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavailable
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect # 123

Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAND RELICT Date 8-30-84 Transect No. 124

Aerial Photo No. 5-11 Place Interval ____ By GALEANO

Same Mgmt. ____ Vegetative Type 1 Slope 0-2

Key Area ____ Soil MU 192. Aspect ____

Location Map:

Soil plot # 5-11 #2

Production

1-6
2-15
3-6
4-0
5-2
6-5
7-14
8-2
9-0
10-0

50 grams x .4 = 20 x 10 or 200 lbs/Acre

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¼"							X.001
2	¼-2"							X.025
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: ____

Leaf Measurements (Vigor)

Species	Bner	
1	1 3/4	
2	1 1/2	
3	2 1/2	
4	2 1/2	
5	1 1/2	
6	3	
7	2 1/2	
8	1 5/8	
9	2 1/2	
10	2	
Tot	20.50	
Ave	2	

CROWN DENSITY (ASPEN AND RIPARIAN)

			Total
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Tot			
Ave			

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	28	50	78	78	X2=156
Inc.	2	2	4	4	X½=1
Inv.	6	12	18	18	X1=18
Tot.	36	64	100	100	=175
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard ____ Dated ____

VEGETATION

Forage Cover Index 36
Composition 43
Vigor 3
Total 82
Cool Season ____
Condition Class E
Current Trend →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 12
Soil Disturbance Factor 50
Total 62
Condition Class Good
Current Trend →

Summary of Hits

Hits, all Plants 36
Hits, all Rock 0
Litter 8
Bare Soil 56
Total 100
Hits, Dec. + Inc ____
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
—	Boer	—	—	—	—	—	GuTi	—	Boer
11	12	13	14	15	16	17	18	19	20
Boer	—	—	—	Misc	—	—	—	—	Boer
21	22	23	24	25	26	27	28	29	30
Boer	—	L	—	S+SP	L	—	—	—	L
31	32	33	34	35	36	37	38	39	40
—	Stco	—	GuTi	Boer	L	Stco	Stco	—	Eula
41	42	43	44	45	46	47	48	49	50
Stco	Boer	—	Boer	—	—	—	—	—	—
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

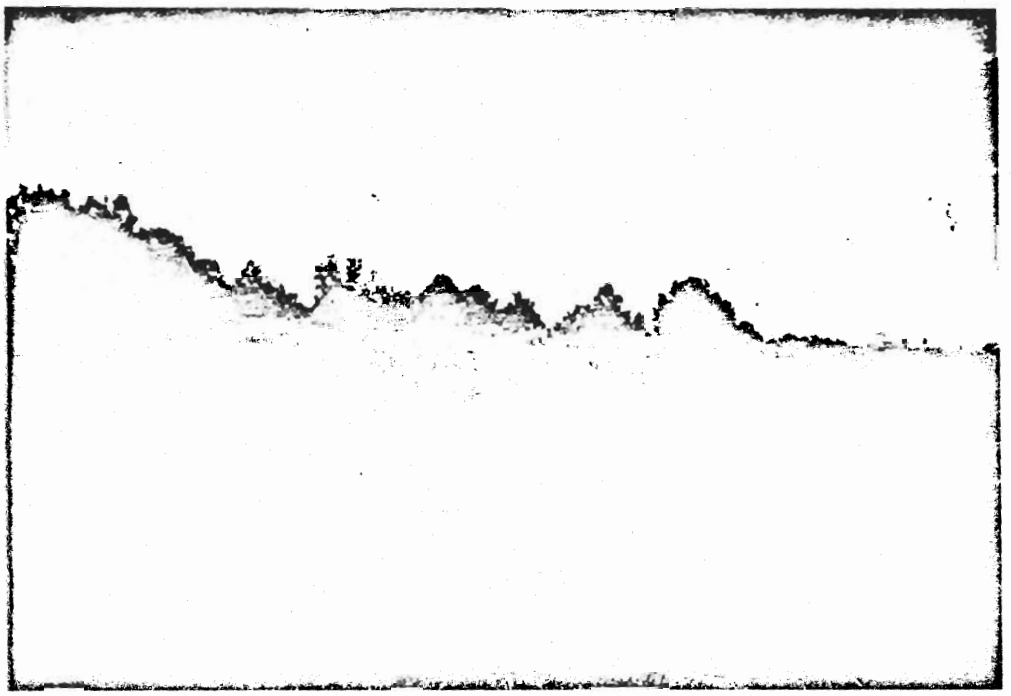
Prescot
AtcM

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Sihy			5-10	
	Boer			20-40	
	Stco			12-24	
	Eula			2-4	
Inc.					
	S+SP			2-4	
Inv.	ARIS			1-2	
	GuTi			6-12	
	Lupa			1-2	
	Misc.			1-2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		18		18-36	
Hits Dec. & Inc.					
Tot. Rock		0		0	
Tot. Litter		4		4-8	
Bare Ground		28		28-56	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect # 124

Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SAWUP PLATEAU Date 9-13-83 d1 Transect No. P 1A

Aerial Photo No. 13-26 Place Interval 3 By DB RW

Game Mgmt. _____ Vegetative Type 16 NC Slope 3

Key Area _____ Soil MU 178 Aspect WS

Location Map:

BEARING
SOIL PLOT 13-26-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: perennial grasses absent, production less than 25 lbs/acre.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4	10	
5	10	
6	10	
7	10	
8		
9		
10		
Tot		
Ave		

WP THICKNESS
MEASUREMENTS

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	2	X2= 0
Inc.	10	0	10	10	X½= 3
Inv.	22	68	90	90	X 1= 90
Tot.	32	68	100	100	= 97
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 13
Composition 2
Vigor 0
Total 15
Cool Season 0
Condition Class . . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 10
Soil Disturbance Factor 2.1
Total 31
Condition Class . . . . . Poor
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 32
Hits, all Rock 4
Litter 3
Bare Soil 61
Total 100
Hits, Dec. + Inc 10
Cool Season 0

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation-type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Cora					Cora				
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
	Cora	Cora			Cora				
31	32	33	34	35	36	37	38	39	40
			Cora	Cora	Cora	Cora			
41	42	43	44	45	46	47	48	49	50
	Cora	Cora					Cora		Cora
51	52	53	54	55	56	57	58	59	60
			Cora	Cora	Cora				Cora
61	62	63	64	65	66	67	68	69	70
				Cora	Cora	Cora			
Cora		Cora							
71	72	73	74	75	76	77	78	79	80
						Cora	Cora		
81	82	83	84	85	86	87	88	89	90
			Cora	Cora					
91	92	93	94	95	96	97	98	99	100

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

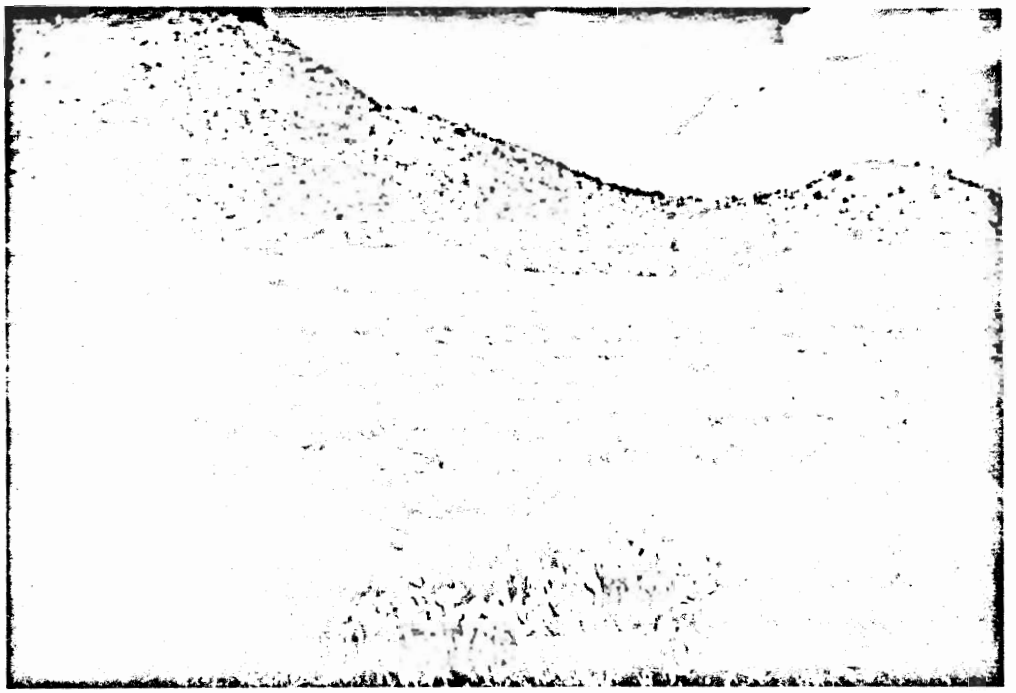
	Sprout		Sapling				
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole	Mature	Dead
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.					
Inv.		31		64	
	Cora	𝍸 𝍸 𝍸 .	𝍸 𝍸 𝍸 𝍸	𝍸 𝍸 (4)	I-
	Thmo			(3)	
	Yuba			(1)	
Flock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		32		32	
Hits Dec. & Inc.					
Tot. Rock		4		4	
Tot. Litter		3		3	
Bare Ground		61		61	
Tot. Cool Season					



Pace Transect # P-1A
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment SANUP PLATEAU Date 9-13-83 Transect No. 1B
Aerial Photo No. 4-15 Pace Interval ____ By WAR - DB
Game Mgmt. ____ Vegetative Type CORA Slope ____
Key Area ____ Soil MU 183 Aspect ____

Location Map:

BEARING
SOIL PLOT 4-15-1

BASAL AREA - Riparian or Aspen

Number or size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: very low forage production, dominated by Cora

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	2	2	2	X2= 4
Inc.	12	0	12	12	X¼= 3
Inv.	58	68	86	86	X1= 86
Tot.	58	70	100	100	= 79
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard ____ Dated ____

VEGETATION

Forage Cover Index 16
Composition 4
Vigor 0
Total 20
Cool Season 0
Condition Class VP
Current Trend →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 15
Soil Disturbance Factor 25
Total 40
Condition Class Poor
Current Trend →

Summary of Hits

Hits, all Plants 30
Hits, all Rock 22
Litter 0
Bare Soil 48
Total 100
Hits, Dec. + Inc 12
Cool Season 0

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
				Ephed					Cora
G 11	JB 12	JB 13	G 14	JB 15	JB 16	JB 17	Cora 18	JB 19	JB 20
					Cora	Chna			
G 21	JB 22	JB 23	JB 24	JB 25	JB 26	G 27	JB 28	G 29	G 30
Cora		Cora	Unk						
JB 31	G 32	G 33	K 34	G 35	G 36	JB 37	Cora 38	Cora 39	K 40
Cora		Cora					Cora		
JB 41	G 42	JB 43	G 44	JB 45	Tree 46	G 47	G 48	G 49	G 50
Cora									
JB 51	K 52	Cora 53	G 54	JB 55	JB 56	G 57	Cora 58	JB 59	JB 60
Chna									
JB 61	G 62	G 63	JB 64	Cora 65	JB 66	JB 67	JB 68	Cora 69	G 70
JB 71	Cora 72	JB 73	JB 74	JB 75	JB 76	JB 77	JB 78	JB 79	JB 80
JB 81	Cora 82	Cora 83	JB 84	JB 85	Cora 86	G 87	EPH 88	JB 89	JB 90
JB 91	JB 92	Yucca 93	JB 94	Yucca 95	JB 96	JB 97	Cora 98	JB 99	JB 100
JB	Cora	JB	JB	G	JB	JB	JB	JB	JB

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

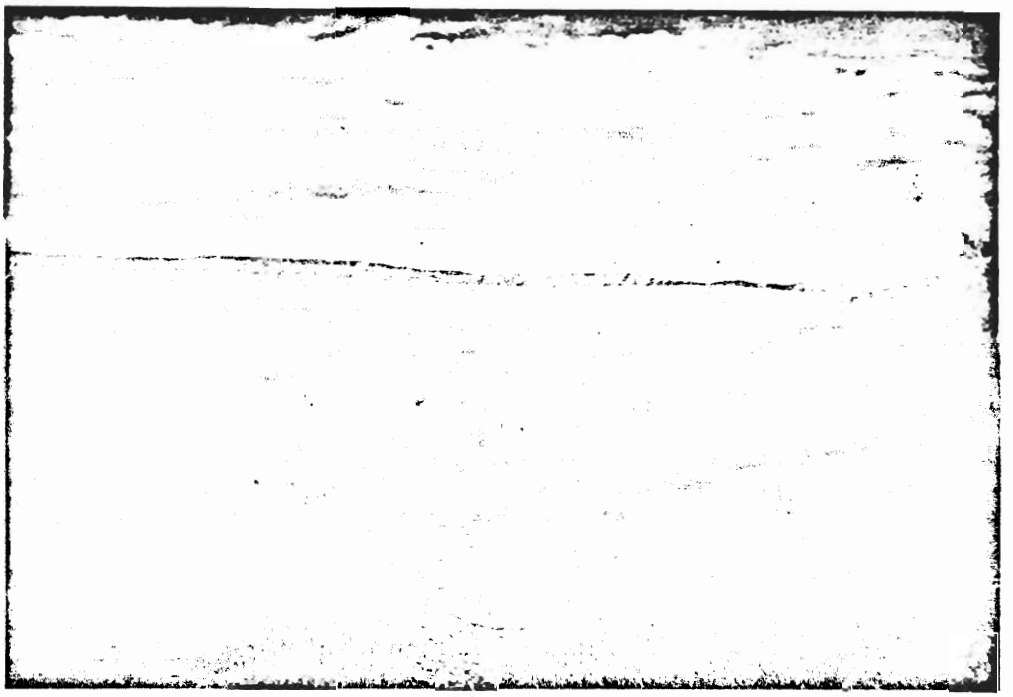
Cora
Chna
Ephedra
UNK

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.			56	79	
1-10	Cora	23			1.94I-C
INV→	Agut		2	2	
H	Thno	1	2	3	
	Epvi	2		2	
INV	Chna	2	5	7	
DS	Yubr	2	2	4	
Inv.	Ptrca		2	2	
	Stsp		1	1	
		30	70		
Rock					
Tot. Dec.		0			
Tot. Inc.		12			
Tot. Inv.		18			
Hits All Plants		30			
Hits Dec. & Inc.		12			
Tot. Rock		22			
Tot. Litter		8			
Bare Ground		28			
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace TRansect #P-1B
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 9-13-85 Transect No. 1C
Aerial Photo No. 4-8 Pace Interval 3 By JB RW
Game Mgmt. _____ Vegetative Type 1 PC Slope 3%
Key Area _____ Soil MU 192 Aspect _____

Location Map:

BEARING
SOIL PLOT 4-8-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Measured production At 880 lbs/ACRE. High ecological condition.

Leaf Measurements (Vigor)

Species	Stem	
1	7	
2	10	
3	8	
4	5	
5	7	
6	6	
7	10	
8	9	
9	5	
10	10	
Tot	77	
Ave	7.66	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	9	83	92	92	X2= 184
Inc.	0	4	4	4	X½= 1
Inv.	1	3	4	4	X1= 4
Tot.	10	90	100	100	131
Cool Seas.	9	68	77		

CONDITION AND TREND RATING

from Scoredcard _____ Dated _____

VEGETATION

Forage Cover Index 13
Composition 51
Vigor 8
Total 72
Cool Season . . . . . _____
Condition Class . . . . G
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 8
Soil Disturbance Factor 50
Total 58
Condition Class . . . . . FAIR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 10
Hits, all Rock 3
Litter 17
Bare Soil 70
Total 100
Hits, Dec. + Inc 9
Cool Season 9

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com-position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
B 11	B 12	L 13	B 14	B 15	B 16	Stco 17	L 18	B 19	B 20
B 21	B 22	B 23	Stco 24	B 25	B 26	Stco 27	B 28	B 29	B 30
B 31	B 32	L 33	B 34	B 35	L 36	B 37	B 38	L 39	B 40
B 41	B 42	B 43	L 44	L 45	Stco 46	B 47	B 48	B 49	B 50
B 51	B 52	B 53	B 54	B 55	B 56	Stco 57	B 58	B 59	B 60
L 61	Stco 62	B 63	B 64	Gusa 65	B 66	L 67	B 68	B 69	B 70
B 71	B 72	B 73	B 74	L 75	L 76	(G) 77	(L) 78	B 79	B 80
B 81	B 82	L 83	B 84	B 85	B 86	B 87	L 88	B 89	Stco 90
B 91	B 92	L 93	B 94	Stco 95	B 96	L 97	B 98	B 99	B 100
B	L	B	B	B	B	L	B	B	Stco

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

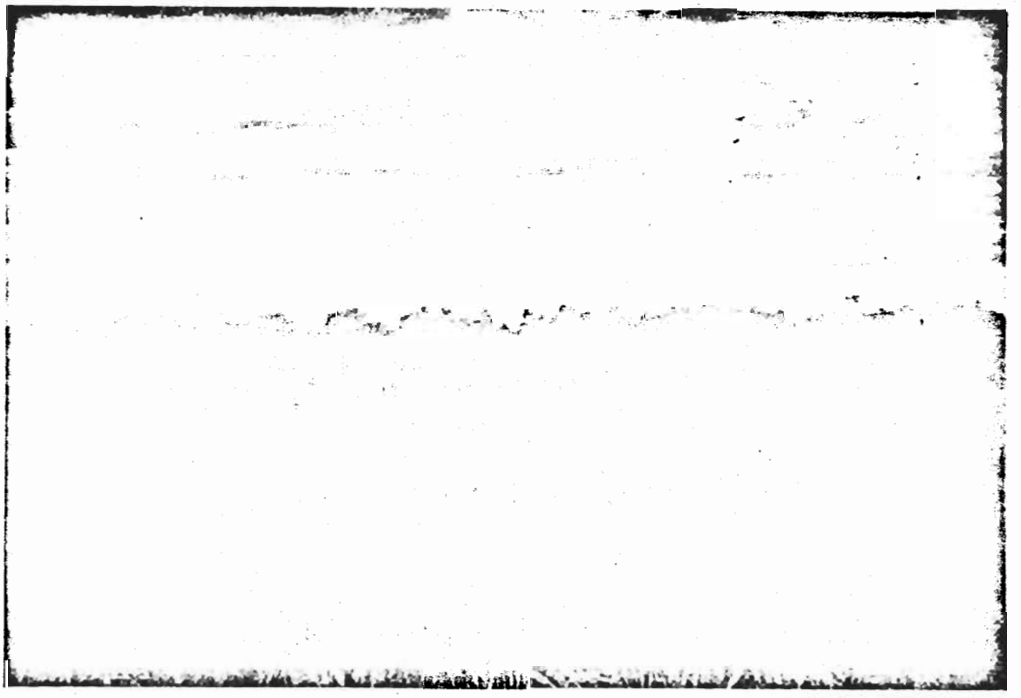
	Sprout		Sapling		Pole	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.	Stco	9	67	76	
	Boer		15	15	
	Orhy		1	1	
Inc.	ARIS		4	4	
Inv.	Gusa	1	3	4	
Rock					
Tot. Dec.		9	83	92	
Tot. Inc.		0	4	4	
Tot. Inv.		1	3	4	
Hits All Plants		10			
Hits Dec. & Inc.		9			
Tot. Rock		3			
Tot. Litter		17			
Bare Ground		20			
Tot. Cool Season		9	68	77	

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #P-C
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment _____ Date _____ Transect No. P-1D

Aerial Photo No. 4-3 Place Interval 3 By ROBBIE BREWER

Game Mgmt. _____ Vegetative Type _____ Slope _____

Key Area _____ Soil MU183 Aspect _____

Location Map:

BEARING
SOIL PLOT 4-3-1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-¾"							X.001
2	¾-2"							X.005
3	2-4"							X.049
4	4-6"							X.135
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: _____

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	6	7	13	13	X½= 6
Inv.	29	58	87	87	X-1= 87
Tot.	35	65	100	106	=93
Cool Seas.	0	0			

CONDITION AND TREND RATING

from Scoredcard C Dated 4-81

VEGETATION

Forage Cover Index 8
Composition 3
Vigor 0
Total 11
Cool Season . . . . . _____
Condition Class . . . . VP
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 13
Soil Disturbance Factor 21
Total 34
Condition Class . . . . . POOR
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 35
Hits, all Rock 7
Litter 4
Bare Soil 54
Total 100
Hits, Dec. + Inc 13
Cool Season 0

SCORE - BROWSE, RIPARIAN, OR ASPEN

Com. position	Density	Vigor	Avail-ability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
Cora L	Cora B	Cora L	Cora L	Cora B	B	B	B		Cora L
11	12	13	14	15	16	17	18		20
Cora L	Cora D	B	St	St	B	EPHE B	Cora L	Cora L	G
21	22	23	24	25	26	27	28	29	30
							Cora L		Cora L
B	B	L	B	B	B	B	33	B	B
31	32	33	34	36	36	37	38	39	40
Cora L	Cora B	B	B	B	Cora B	Cora B	Cora B	B	B
41	42	43	44	45	46	47	48	49	50
	Cora L	Cora L		Cora L	B	Cora L			
L	L	L	B	L	56	57	Cora L	B	B
51	52	53	54	55			58	59	60
						Cora L			
B	B	B	B	B	Cora B	B	B	B	B
61	62	63	64	65	66	67	68	69	70
							Cora L		Cora L
B	B	B	B	B	B	B	B	B	80
71	72	73	74	75	76	77	78	79	
Cora L	Cora L								
B	B	B	B	B	B	B	B	B	B
81	82	83	84	85	86	87	88	89	90
Cora L	Cora L		Cora L				Cora L		
B	L	Cora L	L	B	B	L	L	B	B
91	92	93	94	95	96	97	98	99	100
						Cora L			Cora L
B	B	B	G	G	B	L	B	B	L

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Decad
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

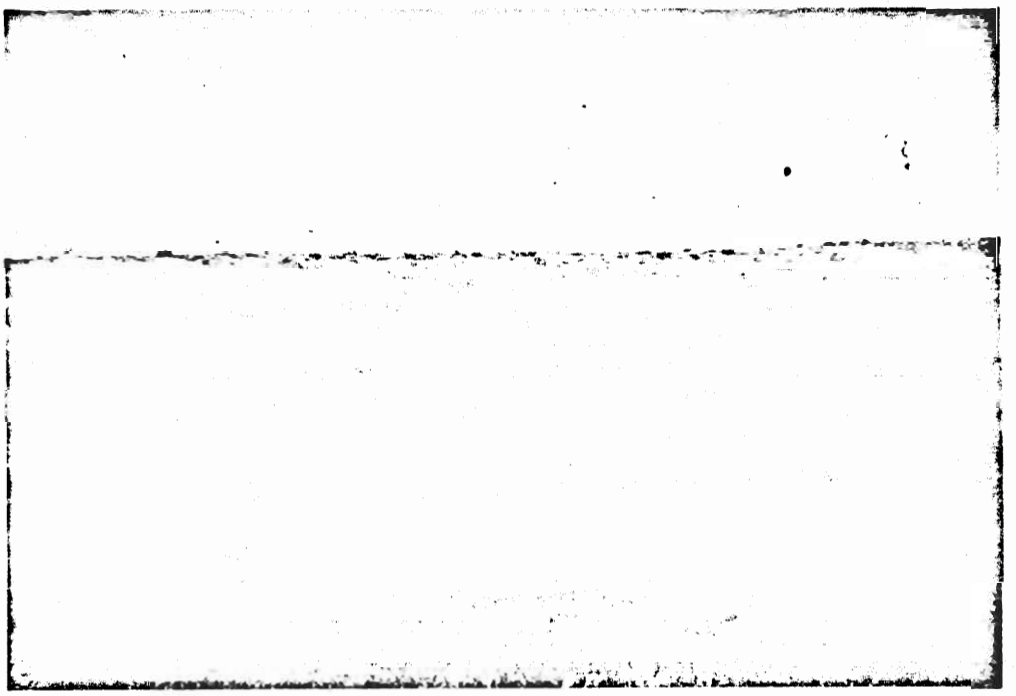
Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.	Cora	3	6	9	
Cora		5	8	13	10%
EPHE		3	1	4	
Inv.					
Cora		29	54	83	
YUCC				4	
Rock					
Tot. Dec.		0	0	0	
Tot. Inc.		13	1	14	
Tot. Inv.		24	62	86	
Hits All Plants		35			
Hits Dec. & Inc.					
Tot. Rock		7			
Tot. Litter		4			
Bare Ground		54			
Tot. Cool Season					

I-10
I
IN

Hits
CORA
Inc: 3
Inv: 29

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect # P-1D
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment Sawup Date 9/14/83 Transect No. 1E
Aerial Photo No. 5-11 Place Interval 1' By WE-DB
Game Mgmt. _____ Vegetative Type 1 PC Slope _____
Key Area _____ Soil M.V.192 Aspect _____

Location Map:

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Meadowsweed production At 647 lbs/ Acre.

Leaf Measurements (Vigor)

Species	Bare	
1	1.6	
2	3.6	
3	4.1	
4	3.9	
5	1.75	
6	3.25	
7	1.75	
8	4.25	
9	3.25	
10	1.75	
Tot	29.2	
Ave	2.8	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	15	40	55	55	X2=110
Inc.	4	23	27	27	X½= 13
Inv.	6	12	18	18	X 1= 18
Tot.	25	75	100	100	=99
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard _____ Dated _____

VEGETATION

Forage Cover Index 25
Composition 36
Vigor 1
Total 62
Cool Season . . . . . +3
Condition Class . . . . G
Current Trend . . . . →
Trend Indicators _____

SOIL STABILITY

Bare Soil Index 13
Soil Disturbance Factor 50
Total 63
Condition Class . . . . . Good
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 25
Hits, all Rock 0
Litter 20
Bare Soil 55
Total 100
Hits, Dec. + Inc 19
Cool Season 5

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	6	6	7	8	9	10
	Boer		Boer			Boer			Boer
B	B	B	L	Boer	Sihy	B	B	B	B
11	12	13	14	15	16	17	18	19	20
Boer		Boer							
B	Boer	B	B	B	B	Sihy	B	B	Boer
21	22	23	24	25	26	27	28	29	30
Boer	B	B	B	B	B	B	B	Sihy	Sihy
31	32	33	34	35	36	37	38	39	40
B	B	L	L	L	B	B	B	B	B
41	42	43	44	45	46	47	48	49	50
					GUSA				LYCI
L	L	L	B	B	B	B	B	GUSA	B
51	52	53	54	55	56	57	58	59	60
LYCI			Eula						
B	L	B	L	B	L	B	B	B	B
61	62	63	64	65	66	67	68	69	70
GUSA									
B	B	B	Boer	L	L	B	B	L	L
71	72	73	74	75	76	77	78	79	80
Atca									
L	L	B	B	B	L	B	L	B	L
81	82	83	84	85	86	87	88	89	90
B	B	L	B	L	B	B	B	B	B
91	92	93	94	95	96	97	98	99	100
			Eula		GUSA				
B	Atca	B	B	L	L	B	L	B	B

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

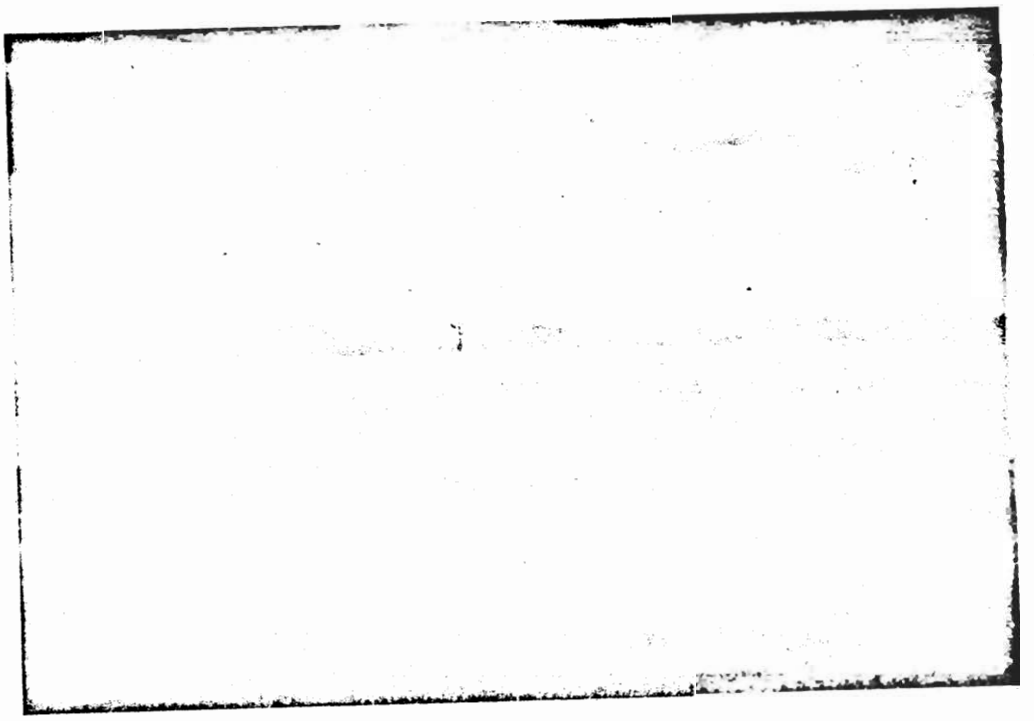
	Sprout		Sapling		Pole.	Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Boer		13	17	30	
Eula		5	1	6	
Orhy			5	5	
Stco		9	2	11	
Atca		3		3	
Atco			2	2	
Inc.					
Sihy		12	13	25	D-10→Inc
ARIS			2	2	I-10→Dec
Inv.					
GUSA		12	1	13	
LYCI		5		5	
Rock					
Tot. Dec.		15	40	55	
Tot. Inc.		4	23	27	
Tot. Inv.		6	12	18	
Hits All Plants		25			
Hits Dec. & Inc.		19			
Tot. Rock		0			
Tot. Litter		20			
Bare Ground		55			
Tot. Cool Season		5	41	46	

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
U												
Tot.												
C												
Tot.												



Pace Transect # P-1E
SAnup Plateau



USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2200.21)

Range Allotment Sanup Date 9-14 Transect No. 1F

Aerial Photo No. 9-10 Place Interval 3 By WAR

Game Mgmt. _____ Vegetative Type 16 PC Slope _____

Key Area _____ Soil MU 178 Aspect _____

Location Map:

Soil plot 9-10 #1

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: No Available forage observed.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	0	0	0	0	X2= 0
Inc.	10	0	10	10	X1= 8
Inv.	29	61	90	90	X.5= 30
Tot.	39	61	100	100	= 57
Cool Seas.					

CONDITION AND TREND RATING

from Scoresheet _____ Dated _____

VEGETATION

Forage Cover Index 13

Composition 2

Vigor 0

Total 15

Cool Season 0

Condition Class VP

Current Trend →

Trend Indicators _____

SOIL STABILITY

Bare Soil Index 14

Soil Disturbance Factor 22

Total 36

Condition Class Poor

Current Trend →

Summary of Hits

Hits, all Plants 39

Hits, all Rock 5

Litter 5

Bare Soil 51

Total 100

Hits, Dec. + Inc 10

Cool Season 0

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

R3-2200-18 (4/80)

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
	Cora			Cora		Cora	Cora	Cora	Cora
B	L	B	B	L	B	B	B	B	B
11	12	13	14	15	16	17	18	19	20
Cora	Cora			Cora	Cora				Cora
B	B	B	L	L	B	Cora	B	B	
21	22	23	24	25	26	27	28	29	30
Cora			Cora	Cora		Cora			Cora
L	B	L	B	L	B	L	B	L	B
31	32	33	34	35	36	37	38	39	40
Cora			Yuba						Cora
B	G	B	B	B	B	Cora	B	B	L
41	42	43	44	45	46	47	48	49	50
Cora			Cora						
L	B	B	B	B	B	B	B	B	B
51	52	53	54	55	56	57	58	59	60
Cora		Cora			Cora	Cora		Cora	
B	B	B	Chella	B	B	B	B	B	B
61	62	63	64	65	66	67	68	69	70
	Cora	Cora	Cora		Cora		Cora		
B	L	L	B	G	L	B	L	B	B
71	72	73	74	75	76	77	78	79	80
						Cora	Cora		
B	B	G	B	B	B	B	L	B	B
81	82	83	84	85	86	87	88	89	90
									Yuba
B	B	L	B	L	B	G	B	B	L
91	92	93	94	95	96	97	98	99	100
						Cora	Cora		
B	B	B	B	L	B	L	G	L	B

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
Inc.					
	Cora	[illegible] 31	36	[illegible]	[illegible] 56
Inv.					
	Yuba	2	2 5	5	
	Chella	1		1	
	Rock				
Tot. Dec.		0	0		
Tot. Inc.		10	0		
Tot. Inv.		29	61		
Hits All Plants		39			
Hits Dec. & Inc.		10			
Tot. Rock		5			
Tot. Litter		5			
Bare Ground		51			
Tot. Cool Season					

1-10

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #P-1F
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment SANUP PLATEAU Date 9-14-83 Transect No. 16

Aerial Photo No. 9-3 Place Interval 3 By DR RW

Game Mgmt. _____ Vegetative Type 116 PC Slope 2

Key Area _____ Soil MU 182 Aspect NE

Location Map:

BEARING SOIL PLOT 9-3#1

BASAL AREA - Riparian or Aspen

Number or size class		Species						Tot
1	0-¾"							X.001
2	¾-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: MEASURED PRODUCTION AT 358 lbs/acre. ALTHOUGH THIS PEDON GROUP INTO 182 IT OCCURS ON THE BREAK BETWEEN 183 & 182 HENCE THE HIGH PERCENTAGES OF COR4.

Leaf Measurements (Vigor)

Species	Sitka
1	9.5
2	8.75
3	8.75
4	10.75
5	15.5
6	12.25
7	5.75
8	3.25
9	14.25
10	9.25
Tot	102.
Ave	10.2

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	6	53	59	59	X2=118
Inc.	2	1	3	3	X1=75
Inv.	21	17	38	38	X1=38
Tot.	29	71	100	100	481
Cool Seas.	2	39	41		

CONDITION AND TREND RATING

from Scoredcard _____ Dated _____

VEGETATION

Forage Cover Index 11

Composition 33

Vigor 9

Total 53

Cool Season . . . . . —

Condition Class . . . . E

Current Trend . . . . →

Trend Indicators _____

SOIL STABILITY

Bare Soil Index 11

Soil Disturbance Factor 40

Total 51

Condition Class . . . . . FAIR

Current Trend . . . . . →

Summary of Hits

Hits, all Plants 29

Hits, all Rock 3

Litter 9

Bare Soil 59

Total 100

Hits, Dec. + Inc 16

Cool Season 2

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
		Corn		Corn					
B	B	B	Corn	L	B	B	B	B	B
11	12	13	14	15	16	17	18	19	20
	Eula			Corn		Corn			
B	L	B	Corn	Stco	B	B	L	B	B
21	22	23	24	25	26	27	28	29	30
B	L	B	B	B	B	B	B	B	B
31	32	33	34	35	36	37	38	39	40
	Eula								
B	B	B	B	B	L	STIP	B	STIP	B
41	42	43	44	45	46	47	48	49	50
B	B	B	B	B	B	B	B	B	B
51	52	53	54	55	56	57	58	59	60
				Corn	Corn	Corn			
B	B	B	B	L	L	B	B	B	B
61	62	63	64	65	66	67	68	69	70
	Corn					Corn		Eula	
B	B	L	L	B	B	L	L	B	B
71	72	73	74	75	76	77	78	79	80
				Corn	Corn	Corn	Eula	Corn	
B	B	B	B	L	L	L	L	B	B
81	82	83	84	85	86	87	88	89	90
					Corn	Corn	Corn		
B	B	B	B	B	L	L	L	B	B
91	92	93	94	95	96	97	98	99	100
					Corn	Corn	Corn		Corn
L	L	L	B	B	L	L	L	Corn	L

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Avg.							

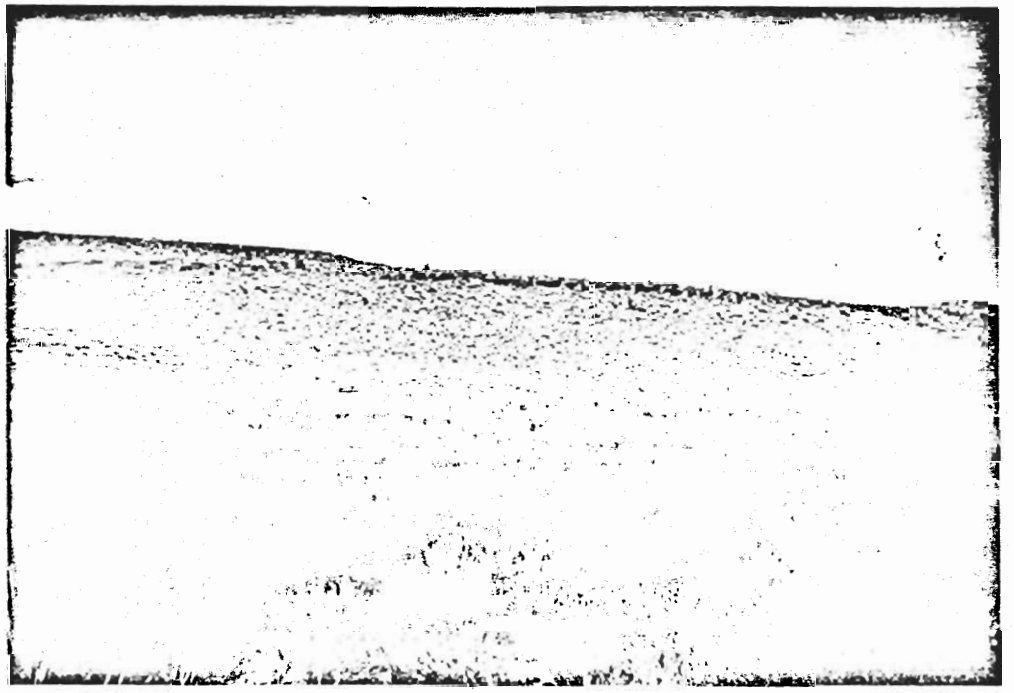
RANGE COMPOSITION

I-10

Class	Species	Hits	Tally	Total	Adjusted
Dec.					
Suhy			7	6	
Eula		::	⊠:	17	
STIP		:	⊠⊠□	30	
Boer			::	3	
Orhy			::	3	
Inc.					
Corn		:	•	3	
Inv.					
I-10	Corn	⊠⊠:	⊠:	34	
	CHOL		•	1	
	OPUN		•	1	
	YUCC		:	2	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		29		29	
Hits Dec. & Inc.					
Tot. Rock		3		3	
Tot. Litter		9		9	
Bare Ground		59		59	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect # 1G

Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment: Sanup | Date: 9-15 | Transect No.: 1-H
Aerial Photo No.: 13-6 | Place Interval: 3 | By: BREWER ROBBIE
Game Mgmt.: | Vegetative Type: 1 FC | Slope:
Key Area: | Soil: Mu 182 | Aspect:

Location Map:

BEARING
SOIL PLOT 13-6-4

BASAL AREA - Riparian or Aspen

Number or Size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.133
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Within old burn on western end of survey area. Measured production at 981bs/Acre.

Leaf Measurements (Vigor)

Species	Orhy	
1	11	
2	13	
3	11	
4	14	
5	11	
6	14	
7	10	
8	12	
9	10.5	
10	12	
Tot	118.5	
Ave	11.85	

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	1	47	48	48	X2= 96
Inc.	0	16	16	16	X1= 4
Inv.	7	29	36	36	X1.5= 54
Tot.	8	92	100	100	64
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard: Dated:

VEGETATION

Forage Cover Index: 1
Composition: 30
Vigor: 10
Total: 41
Cool Season:
Condition Class: E
Current Trend: →
Trend Indicators:

SOIL STABILITY

Bare Soil Index: 4
Soil Disturbance Factor: 10
Total: 14
Condition Class: FAIR
Current Trend: →

Summary of Hits

Hits, all Plants: 8
Hits, all Rock: 3
Litter: 5
Bare Soil: 84
Total: 100
Hits, Dec. + Inc: 1
Cool Season:

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
B 11	B 12	B 13	B 14	B 15	B 16	4 17	18	B 19	4 20
B 21	B 22	B 23	B 24	4 25	B 26	B 27	Gusa 28	B 29	B 30
B 31	B 32	B 33	Gusa 34	B 35	B 36	B 37	(-) 38	B 39	B 40
Gusa 41	Gusa 42	B 43	B 44	B 45	B 46	B 47	B 48	B 49	B 50
B 51	Gusa 52	B 53	B 54	B 55	B 56	B 57	B 58	B 59	Gusa 60
B 61	B 62	B 63	B 64	B 65	B 66	(3) 67	B 68	B 69	B 70
B 71	B 72	B 73	B 74	B 75	B 76	B 77	Sdoc 78	B 79	B 80
B 81	B 82	B 83	B 84	B 85	B 86	B 87	B 88	B 89	B 90
B 91	B 92	B 93	B 94	B 95	B 96	(4) 97	B 98	B 99	B 100
B	B	B	B	B	4	B	B	B	B

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

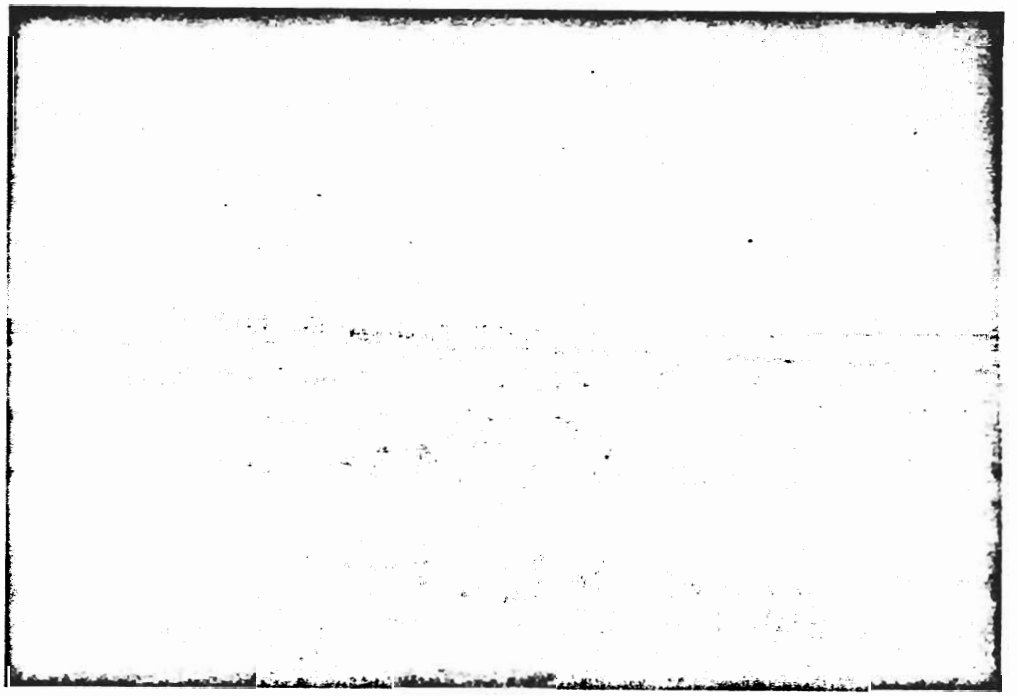
	Sprout		Sapling			Mature	Decs
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

	Class	Species	Hits	Tally	Total	Allowable
	Dec.					
D		Deer		4	4	
D		Orhy		14	14	
D-I			1	20	21	
I		Bout		1	1	
D		Stco		4	4	
I		Spcr		4	4	
	Inc.					
D		4Tag		7	7	
II D		Gusa		36	36	
I-D		ARLA		1	1	
	Inv.					
	UNK (Listed as LYCI)			8	8	
	Flock					
	Tot. Dec.		1	47	48	
	Tot. Inc.			16	16	
	Tot. Inv.		7	29	36	
	Hits All Plants		8		8	
	Hits Dec. & Inc.		1			
	Tot. Rock		3		3	
	Tot. Litter		5		5	
	Bare Ground		84		84	
	Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS Y	M	Dec.	Dd.	FORM CLASS 1	2	3	4	5	6	% Comp.	Unavail-able
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #P-1H
Sanup Plateau

USDA-Forest Service

PACED TRANSECT

(Ref: FSH 2209.21)

Range Allotment Sawup Date 9/15/83 Transect No. 1T
Aerial Photo No. 15-5 Pace Interval 1' By WE-DB
Game Mgmt. ____ Vegetative Type 16 NC Slope ____
Key Area ____ Soil ____ Aspect ____

Location Map:

Soil plot 15-5 #1

BASAL AREA - Riparian or Aspen

Number or size class		Species						Tot
1	0-½"							X.001
2	½-2"							X.005
3	2-4"							X.049
4	4-6"							X.136
5	6-8"							X.267
6	8-10"							X.442
7	10-12"							X.600
8								
9								
10								
tot								
avg								

Comments: Estimated production is approx., 50 to 100 lbs per acre. No visible signs of erosion. This relic area could possibly represent the best range condition, and ground cover production for shallow calcareous soils. Cool season grasses present, but density is low.

Leaf Measurements (Vigor)

Species		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Tot		
Ave		

Not recorded

CROWN DENSITY (ASPEN AND RIPARIAN)

				Total
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Tot				
Ave				

Composition Summary

	Hits.	Dots.	Comp	ALLOW Comp	Comp Value
Dec.	5	9	14	14	X2= 28
Inc.	2	4	6	6	X¼= 1.50
Inv.	23	57	80	80	X-1= 80
Tot.	30	70	100	100	= 50.50
Cool Seas.					

CONDITION AND TREND RATING

from Scoredcard C Dated 4/81

VEGETATION

Forage Cover Index 9
Composition 9
Vigor 5
Total 23
Cool Season . . . . . ____
Condition Class . . . . Poor
Current Trend . . . . →
Trend Indicators ____

SOIL STABILITY

Bare Soil Index 18
Soil Disturbance Factor 31
Total 49
Condition Class . . . . . Fair
Current Trend . . . . . →

Summary of Hits

Hits, all Plants 30
Hits, all Rock 28
Litter 5
Bare Soil 37
Total 100
Hits, Dec. + Inc ____
Cool Season ____

SCORE - BROWSE, RIPARIAN, OR ASPEN

Composition	Density	Vigor	Availability	Stand Structure	Basal Area	Cool Season

TYPING DESIGNATION: Transect no., Vegetation type, predominant vegetation, vegetation and soil score, and trend.

LOOP MEASUREMENTS

1	2	3	4	5	6	7	8	9	10
				Cora			Cora		
R	B	R	B	B	B	L	L	R	R
11	12	13	14	15	16	17	18	19	20
			Cora		Cora		Yucc		
R	B	B	L	R	L	R	R	R	R
21	22	23	24	25	26	27	28	29	30
			Yucc						
B	B	B	Yucc	R	R	B	B	L	R
31	32	33	34	35	36	37	38	39	40
Gusa		Gusa			Yucc	Yucc			
L	R	B	B	L	B	L	B	B	B
41	42	43	44	45	46	47	48	49	50
	Gusa								
B	B	R	R	B	R	L	B	B	B
51	52	53	54	55	56	57	58	59	60
	Eula	Cora				Cora			
B	B	L	G	G	G	B	G	B	Stco
61	62	63	64	65	66	67	68	69	70
			Cora	Cora				Yucc	
G	B	G	Cora	G	B	B	B	Yucc	B
71	72	73	74	75	76	77	78	79	80
EPHE			EPHE	Cora	Yucc			Yucc	
L	B	G	B	L	L	L	G	Yucc	B
81	82	83	84	85	86	87	88	89	90
	EPHE					Cora			
G	L	Stco	R	R	B	G	G	L	G
91	92	93	94	96	96	97	98	99	100
		Cora	Cora		Cora				Cora
G	B	Stco	B	B	L	B	B	B	B

COMPOSITION BY SIZE CLASS - RIPARIAN - ASPEN

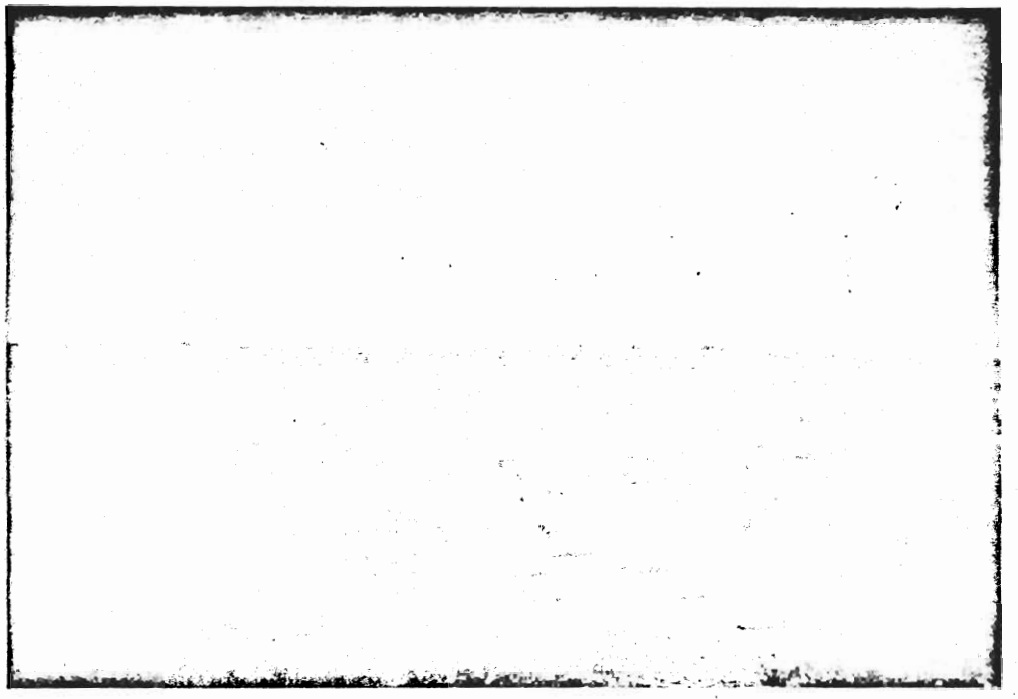
	Sprout		Sapling			Mature	Dead
	Browsed	Unbrowsed	Browsed	Unbrowsed	Pole.		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Tot.							
Ave.							

RANGE COMPOSITION

Class	Species	Hits	Tally	Total	Allowable
Dec.					
	Stco	::	9	9	
	Orhy		·	1	
	Atcg		·	1	
	Eula	:	·	3	
Inc.	EPHE	::	·	4	
	Cora	·	::	4	I-10 → Inv
Inv.	YUCC	11	𝍸	26	
	CHOL		·	1	
	GUTI	:	⚀	11	
	CORA	⚃:	⚃⚃⚀	40	
Rock					
Tot. Dec.					
Tot. Inc.					
Tot. Inv.					
Hits All Plants		30		30	
Hits Dec. & Inc.					
Tot. Rock		28		28	
Tot. Litter		5		5	
Bare Ground		37		32	
Tot. Cool Season					

BROWSE CONDITION

Species	AGE CLASS				FORM CLASS						% Comp.	Unavail-able
	Y	M	Dec.	Dd.	1	2	3	4	5	6		
A												
Tot.												
B												
Tot.												
C												
Tot.												



Pace Transect #P-1I
Sanup Plateau

APPENDIX B

PLANT SPECIES LIST FOR SANUP PLATEAU STUDY AREA

SANUP PLATEAU PLANT LIST

Nomenclature follows Lehr (1978) and Lehr and Pinkava (1980).

TREES:

Chilopsis linearis

Fraxinus anomala

Juniperus osteosperma

Pinus edulis

Pinus monophylla

Tamarisk pentandra

CACTUS:

Coryphantha vivipara

Echinocactus sp.

Echinocereus Engelmannii

Echinocereus troglochidiatus

Mammilaria sp.

Opuntia acanthicarpa

Opuntia basilaris

Opuntia erinacea

Opuntia phaecantha

Opuntia whipplei

SHRUBS:

Agave utahensis

Arcostaphylos pungens

Artemisia tridentata

Atriplex canescens

Baccharis sergiloides

Berberis fremontii

Bernardia incana

Brickellia californica

Brickellia longifolia

Brickellia scabra

Ceonothus greggi

Ceratoides lanata (Eurotia l.)

Cercocarpus montanus

Chrysothamnus spp.

Chrysothamnus viscidiflorus

Coleogyne ramosissima

Cowania mexicana

Encelia frutescens var. resinosa

Ephedra nevadensis

Ephedra viridis

Ephedra spp.

Eriogonum fasciculatum

Eriogonum spp.

Fallugia paradoxa

Forsellesia nevadense (Glossopetalon)

Garrya flavescens

Gutierrezia sarathrae

Gutierrezia spp.

Haplopappus laricifolius

Krameria parvifolia

Larrea tridentata

Lycium andersonii

Lycium pallidum

Mimosa biuncifera

Mortonia scabrella

Nolina bigelovii

Parthenium incanum

Prunus fasciculatum

Quercus turbinella

Rhus trilobata

Salvia dorrii

Thamnosma montana

Yucca angustissima

Yucca baccata

Yucca brevifolia

FORBS:

Allonia incarnata

Arabis sp.

Artemisia dracunculus

Artemisia ludoviciana

Asclepias asperula

Asclepias latifolia

Baileya multiradiata

Camissonia sp

Castilleja sp

Comandra pallida

Cryptantha confertifolia

Descurainia sophia

Dyssodia acerosa

Erigeron spp.

Eriogonum inflatum

Erodium circutarium

Euphorbia albonarginata

Euphorbia sp.

Gaillardia pinnatifida

Gaura sp

Glandularia goodingii (Verbena g.)

Haplopappus gracilis

Hymenopappus filifolius var. lugens

Hymenoxys acaulis

Ipomopsis aggregata

Ipomopsis longiflora

Lactuca serriola

Lepidium montanum

Leucelene ericoides (Aster arenosus)

Linum Lewisii

Machaeranthera sp.

Melampodium leucanthum

Menodora scabra

Mentzelia albieaulis

Mentzelia pumila

Mirabilus multiflora

Nicotiana trigonophylla

Oenothera caespitosa

Oenothera sp

Pectis sp.

Penstemon eatoni

Perityle ciliata

Peteria thompsonae

Phacelia constancei

Physalis sp.

Plantago purshii

Psilostrophe sparsiflora

Salsola iberica

Sanuitala aberti

Senecio douglassi

Sphaeralcea grossulariaefolia

Sphaeralcea sp.

Stanleya pinnata

Swertia albomarginata

Tiquilia cauesleus
(Coldenia caneseus)

Vicia exigua

GRASSES:

Andropogon sp.

Aristida fendleriana

Aristida longiseta

Aristida purpurea

Bouteloua barbata

Bouteloua curtipendula

Bouteloua eriopoda

Bouteloua gracilis

Bromus rubens

Bromus tectorum

Enneapogon desvauxii

Erioneuron pulchellus (Tridens p.)

Hilaria jamesii

Hilaria rigida

Muhlenbergia porteri

Muhlenbergia repens

Oryzopsis hymenoides

Poa fendleriana

Scleropogon brevifolius

Sitanion hystrix

Sporobolus contractus

Sporobolus cryptandrus

Sporobolus flexuosus

Sporobolus giganteus

Stipa arida

Stipa comata

Stipa coronata var. depauperata

Stipa speciosa

Tridens muticus

Tridens muticus var. elongatus (T. elongatus)

Vulpia octoflora (Festuca octoflora)

APPENDIX C
REPRESENTATIVE PEDON PROFILE DESCRIPTIONS

Lithic Ustollic Calciorthids, LSC, 2, loamy, mixed, mesic

Lithic Ustollic Calciorthids, LSC, 2, loamy, mixed, mesic consists of shallow well drained soils that formed in residuum from sandstone. They are on nearly level to strongly sloping benches and terraces with slopes of 0 to 15 percent. Means are 25 centimeters for annual precipitation, 13 degrees Celsius for annual air temperature, and 1720 meters for elevation. Approximately 60 percent of the annual precipitation occurs during the period between 01 October and 31 March.

A representative pedon of this soil is located in the SW 1/4 NW 1/4 of Sec. 30, T.31N., R.13W.

A--0 to 8 centimeters; reddish brown (5RY 4/4) gravelly very fine sandy loam, dark reddish brown (5YR 3/4) moist; weak very fine granular structure; soft, very friable, nonsticky and nonplastic; few very fine roots; common very fine pores; 25 percent gravel: mildly alkaline (7.8); abrupt smooth boundary.

Bk--8 to 18 centimeters; reddish brown (5YR 5/4) very fine sandy loam, reddish brown (5YR 4/4) moist; weak subangular blocky structure: soft, very friable, nonsticky and nonplastic; few very fine and fine roots; few very fine, fine and medium pores: 5 percent gravel; moderately alkaline (7.8); abrupt smooth boundary.

Ck--18 to 45 centimeters; yellowish red (5YR 5/6) gravelly fine sandy loam, yellowish red (5YR 4/6) moist; massive structure; soft, very friable, nonsticky and plastic: few very fine roots; common very fine and fine pores; 20 percent gravel; moderately alkaline (7.8).

R--45 centimeters; hard unweathered sedimentary rock.

The solum thickness ranges from 18 to 33 centimeters and the depth to bedrock ranges from 25 to 48 centimeters. The reaction of the solum ranges from 7.8 to 8.0 and the base saturation is 100 percent.

The A horizon has a hue of 5YR or 7.5YR, or 10YR, value 4 through 6 dry, 3 or 4 moist, and chroma of 4 through 6. The texture of the fine earth fraction is loam or sandy loam. The soil has 15 to 35 percent rock fragments.

The Bk horizon has a hue of 5YR or 7.5YR, or 10YR, value 5 through 7 dry, 4 or 5 moist, and chroma of 4 through 6. The texture of the fine earth fraction is sandy loam. The calcic horizon has 0 to 35 percent rock fragments.

The Ck horizon were present has a hue of 5YR, value of 4 and chroma of 6. The texture of the fine earth fraction is very fine sandy loam. The calcic horizon has 0 to 35 percent rock.

Lithic Ustollic Calciorthids, LSC, 2, loamy-skeletal, carbonatic, mesic

Lithic Ustollic Calciorthids, LSC, 2, loamy-skeletal, carbonatic, mesic consists of very shallow to shallow well drained soils that formed in residuum from sanstone. They are on nearly level to steep benches and escarpment sideslopes with slopes of 0 to 40 percent. Means are 25 centimeters for annual precipitation, 13 degrees Celsius for annual air temperature, and 1525 meters for elevation. Approximately 60 percent of the annual precipitation occurs during the period beetwen 01 October and 31 March.

A representative pedon of this soil is located in the NE 1/4 NE 1/4, Sec. 9, T.31N., R.14W.

A--0 to 8 centimeters; yellowish red (5YR 5/6) very gravelly fine sandy loam, yellowish red (5YR 4/6) moist, moderate very fine granular structure ; soft, very friable, nonsticky and nonplastic; few very fine roots; common very fine pore; 60 percent gravel, 14 percent cobble, 2 percent stone, 2 percent boulder; moderately alkaline (8.0); abrupt smooth boundary.

Bk--8 to 20 centimeters; yellowish red (5YR 5/6) very cobbly very fine sandy loam, yellowish red (5YR 4/6) moist; weak medium subangular blocky structure; soft, very friable, nonsticky and non plastic; few very fine and fine roots; few very fine and fine pores: 15 percent gravel, 20 percent cobble, 15 percent stone: moderately alkaline (8.2); clear smooth boundary.

Ck--20 to 38 centimeters; yellowish red (5YR 5/6) very cobbly very fine sandy loam, yellowish red (5YR 4/6) moist; massive; loose, loose, nonsticky and nonplastic; few very fine roots; few very fine pores; 15 percent gravel, 25 percent cobble, 5 percent stone; moderately alkaline (8.4).

The solum thickness ranges from 5 to 30 centimeters and the depth to bedrock ranges from 20 to 48 centimeters. The reaction of the solum ranges from 7.8 to 8.2 and the base saturation is 100 percent.

The A horizon has a hue of 2.5YR through 7.5YR, value of 5 dry, 4 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is very fine sandy loam, fine sandy loam, and sandy loam. The A horizon has 15 to 75 percent rock fragments.

The Bk horizon were present has a hue of 2.5YR or 5YR, value of 5 dry, 4 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is very fine sandy loam or fine sandy loam. The calcic horizon has 10 to 50 percent rock fragments.

The Ck horizon has a hue of 2.5YR through 7.5YR, value of 4 through 7 dry, 4 through 6 moist, and a chroma of 2 through 6. The texture of the fine earth fraction is very fine sandy loam, fine sandy loam, sandy loam, or loamy sand. The calcic horizon has 35 to 60 percent rock fragments.

Typic Calciorthids, LSC, 1, fine-loamy, mixed, thermic

Typic Calciorthids, LSC, 1, fine-loamy, mixed, thermic consists of moderately deep to deep soils that formed from mixed alluvial material. They are on nearly level valley plains. Means are 20 centimeters for annual precipitation, 14 degrees Celsius for annual air temperatures, and 1465 meters for elevation. Approximately 60 percent of the annual precipitation occurs during the period between 01 October and 31 March.

A representative pedon of this soils is located in the NW 1/4 SW 1/4, Sec. 18, T.31N., R.15W.

A--0 to 8 centimeters: brown (7.5YR 4/4) very gravelly very fine sandy loam, dark brown (7.5YR 3/4) moist; weak very fine granular structure; soft, very friable, slightly sticky and slightly plastic; few very fine roots; common very fine and fine pores; 52 percent gravels; mildly alkaline (7.8); abrupt smooth boundary.

Bk--8 to 28 centimeters; brown (7.5YR 5/4) very fine sandy loam, brown (7.5 YR 4/4) moist; weak medium subangular blocky structure; soft, very friable, slightly plastic and slightly nonsticky; common very fine and fine roots; few very fine and fine pores; 10 percent gravel; moderately alkaline (8.0); clear smooth boundary.

Bk--28 to 70 centimeters; brown (7.5YR 5/4) very fine sandy loam, brown (7.5YR 4.4) moist; weak medium subangular blocky structure; soft, very friable, slightly plastic and nonsticky; common very fine and fine roots; few very fine and fine pores; 30 percent gravel; moderately alkaline (8.0).

R--70 centimeters; hard unweathered limestone.

The solum thickness ranges from 55 centimeters to over 100 centimeters, and the depth to bedrock ranges from 55 centimeters to over 100 centimeters. The reaction of the solum ranges from 7.8 to 8.0 and the base saturation is 100 percent.

The A horizon has a hue of 7.5YR, value of 4 or 5 dry, 4 or 6 moist, and a chroma of 4 through 6. The texture of the fine earth fraction is loam or very fine sandy loam. The A horizon has 15 to 60 percent rock fragments.

The Bk horizon has a hue of 7.5YR, value of 5 dry, 4 moist, and a chroma of 4. The texture of the fine earth fraction is loam or very fine sandy loam. The calcic horizon hs 0 to 35 percent rock fragments.

The Bk horizon has a hue of 7.5YR, value of 5 dry, 4 moist, and a chroma of 4 through 6. The texture of the fine earth fraction is loam, very fine sandy loam, or fine sandy loam. The calcic horizon has 0 to 35 percent rock fragments.

Typic Calciorthids, LSC, 1, loamy-skeletal, carbonatic, thermic

Typic Calciorthids, LSC, 1, loamy-skeletal, carbonatic, thermic consists of moderately deep soils that formed from mixed colluvial material. They are on nearly level to stongly sloping toe slopes. Means are 20 centimeters for annual precipitation, 14 degrees Celsius for annual air temperatures, and 1465 meters for elevation. Approximately 60 percent of the annual precipitation occurs during the period between 01 October and 31 March.

A representative pedon of this soil is located in the SW 1/4 Sw 1/4, Sec. 7, T.30N., R.15W.

A--0 to 10 centimeters; pinkish gray (7.5YR 6/3) extremely gravelly very fine sandy loam, brown (7.5YR 4/2) moist; weak very fine granular structure; soft, very friable, slightly sticky and slightly plastic; few very fine roots; few very fine pores; 64 percent gravels; moderately alkaline (8.2); abrupt smooth boundary.

Bk--10 to 45 centimeters; brown (7.5YR 5/4) very gravelly fine sandy loam, brown (7.5YR 4/4) moist; weak subangular blocky structure; slightly hard, very friable, slightly plastic and slightly sticky: few very and fine roots; common very fine and fine pores; 50 percent gravel; moderately alkaline (8.4); abrupt smooth boundary.

Ck--45 to 65 centimeters; brown (7.5YR 5/4) very gravelly fine sandy loam, brown (7.5YR 5/4) moist; massive structure; loose, loose, slightly plastic and slightly sticky; few very fine and fine roots; very fine and fine pores; 40 percent gravels, 10 percent cobbles; moderatley alkaline (8.4).

R--65 centimeters; hard unweathered limestone.

The solum thickness ranges from 20 to 45 centimeters, and the depth to bedrock to bedrock ranges from 53 centimeters to 78 centimeters. The reaction of the solum ranges from 8.0 to 8.4 and the base saturation is 100 percent.

The A horizon has a hue of 7.5YR, value of 4 through 6 dry, 3 or 4 moist, and a chroma 2 through 4. The texture of the fine earth fraction is very fine sandy loam. The A horizon has 60 to 75 percent rock fragments.

The Bk horizon has a hue of 7.5YR, value of 5 dry, 4 moist, and a chroma of 4. The texture of the fine earth fraction is very fine sandy loam or fine sandy loam. The calcic has 35 to 60 percent rock fragments.

The Ck horizon has a hue of 7.5YR, value of 5 or 6 dry, 4 moist, and a chroma of 4. The texture of the fine earth fraction is fine sandy loam. The calcic has between 35 percent and 75 percent rock fragments.

Ustollic Calciorthids, LSC, 2, course-loamy, mixed, mesic

Ustollic Calciorthids, LSC, 2, course-loamy, mixed, mesic consist of moderately deep well drained soils that formed in residuum from sandstone. They are on nearly level to strongly sloping benches and terraces with slopes of 0 to 15 percent. Means are 25 centimeters for annual precipitation, 13 degrees Celsius for annual air temperature, and 1465 meters for elevation. Approximately 60 percent of the annual precipitation occurs during the period between 01 October and 31 March.

A representative pedon of this soil is located in the SW 1/4 SE 1/4, Sec. 2, T.31N., R.15W.

A--0 to 10 centimeters; strong brown (5YR 5/6) gravelly fine sandy loam, strong brown (5YR 4/6) moist; moderate very fine and fine granular structure; soft, very friable, slightly plastic and slightly sticky; common very fine and fine roots; common very fine and fine pores; 32 percent gravels; mildly alkaline (7.8); abrupt smooth boundary.

Bk--10 to 45 centimeters; strong brown (5YR 5/6) fine sandy loam, strong brown (5YR 4/6) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few fine and medium roots; few very fine and fine pores; moderately alkaline (8.0); clear smooth boundary.

Ck--45 to 60 centimeters; light brown (5YR 6/4) sandy loam, brown (5YR 4/4) moist; massive structure; soft, very friable, nonsticky and nonplastic; few very fine roots; few very fine pores; moderately alkaline (8.0).

The solum thickness ranges from 40 to 80 centimeters and the depth to bedrock ranges fro 55 to 80 centimeters. The reaction of the solum ranges from 7.8 to 8.0 and the base saturation is 100 percent.

The A horizon has a hue of 2.5YR through 7.5YR, value of 5 or 6 dry, 4 or 5 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is very fine sandy loam or fine sandy loam. The soils has 0 to 35 percent rock fragments.

The Bk horizon has a hue of 2.5YR through 7.5YR, value of 5 or 6 dry, 4 or 5 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is very fine sandy loam or fine sandy loam. The calcic horizon has 0 to 15 percent rock fragments.

The Ck horizon has a hue of 2.5YR through 7.5YR, value of 5 or 6 dry, 4 or 5 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is very fine sandy loam or sandy loam. The calcic horizon has 0 to 15 percent rock fragments.

Ustollic Calciorthids, LSC, 2, loamy-skeletal, carbonatic, mesic

Ustollic Calciorthids, LSC, 2, loamy-skeletal, carbonatic, mesic consists of moderately deep and deep, well drained soils that formed in colluvium from sandstone and limestone. They are on nearly level to steep benches and escarpment sideslopes with slopes of 0 to 40 percent. Means are 25 centimeters for annual precipitation, 13 degrees Celsius for annual air temperatures and 1525 meters for elevation. Approximately 60 percent of the annual precipitation occurs during the period of 01 October and 31 March.

A representative pedon of this soil is located in the SE 1/4 SW 1/4, Sec. 15, T.31N., R.10W.

A--0 to 8 centimeters; reddish yellow (5YR 6/6) gravelly sandy loam, yellowish red (5YR 5/6) moist; weak very fine granular structure; soft, very friable, nonsticky and nonplastic; few very fine roots; common very fine pores; 26 percent gravels; mildly alkaline (7.8); abrupt smooth boundary.

Bk--8 to 28 centimeters; reddish yellow (5YR 6/6) sandy loam, yellowish red (5YR 5/6) moist; moderate medium subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; few fine and medium roots; few very fine, through medium pores; moderately alkaline (8.0); clear smooth boundary.

Ck--28 to 55 centimeters; reddish yellow (5YR 6/6) very gravelly sandy loam, yellowish red (5YR 5/6) moist; massive structure; slightly hard, very friable, nonsticky and non plastic; few medium and coarse roots; few fine and medium pores; moderate alkaline (8.0).

The solum thickness ranges from 3 to 23 centimeters and the depth to bedrock ranges from 50 centimeters to over 100 centimeters. The reaction of the solum ranges from 7.8 to 8.0 and the base saturation is 100 percent.

The A horizon has a hue of 5YR through 10YR, value of 5 through 7 dry, 5 moist, and a chroma of 3 through 6. The texture of the fine earth fraction is very fine sandy loam, fine sandy loam, or sandy loam. The soil has from 15 to 65 rock fragments.

The Bk horizon were present has a hue of 5YR, value of 6 dry, 5 moist, and a chroma of 6. The texture of the fine earth fraction is sandy loam. The calcic horizon has 0 to 15 percent rock fragments.

The Ck horizon has a hue of 5YR or 7.5YR, value of 5 through 7, 4 through 6 moist, an a chroma 4 through 6. The texture of the fine earth fraction is very fine sandy loam, fine sandy loam, and sandy loam. The calcic horizon has 35 to 80 percent rock fragments.

Typic Ustifluvents, LSC, 4, sandy-skeletal, mixed (calcareous), mesic

Typic Ustifluvents, LSC, 4, sandy-skeletal, mixed (calcareous), mesic consists of very deep well drained soils that formed from mixed colluvial and alluvial material. They are on nearly level to moderately sloping valley plain with slopes of 0 to 15 percent. Means are 35 centimeters for annual precipitation, 13 degrees Celsius for annual air temperature, and 1525 meters for elevation. Approximately 60 percent of the annual precipitation occurs during the period of 01 October and 31 March.

A representative pedon of this soil is located in the NW 1/4 NW 1/4, Sec. 20, T.31N., R.13E.

A--0 to 8 centimeters; red (2.5YR 4/6) very stony sandy loam, dark red (2.5YR 3/6) moist; single grained; loose, loose, nonsticky and nonplastic; few very fine and medium roots; common very fine and fine pores; 26 percent gravel, 14 percent cobble, 12 percent stone, 8 percent boulder; mildly alkaline (7.8); abrupt smooth boundary.

C1--8 to 38 centimeters; red (2.5YR 5/6) very gravelly loamy sand, red (2.5YR 4/6) moist; single grained; loose, loose, nonsticky and nonplastic; few very fine and fine roots; common very fine and fine pores; 40 percent gravel, 5 percent cobble; moderately alkaline (8.0); abrupt wavy boundary.

C2--38 to 123 centimeters; red (2.5YR 5/6) extremely gravelly sand, red (2.5YR 4/6) moist; single grained; loose, loose, nonsticky and nonplastic; few very fine roots; common fine and medium pores; 75 percent gravel, 5 percent cobble; moderately alkaline (8.0); abrupt wavy boundary.

C3--123 to 150 centimeters; red (2.5YR 4/8) very cobbly loamy sand, red (2.5YR 4/6) moist; single grained; loose, loose, nonsticky and nonplastic; common medium and coarse pores; 20 percent gravel, 25 percent cobble, 10 percent stone; moderately alkaline (8.0); abrupt wavy boundary.

The solum thickness ranges from 5 to 8 centimeters and the depth to bedrock is in excess of 150 centimeters. The reaction of the solum ranges from 7.8 to 8.0, and the base saturation is 100 percent.

The A horizon has a hue of 2.5YR or 5YR, value of 3 or 4 dry, 3 moist, and chroma 3 through 6. The texture of the fine earth fraction is sandy loam. The soil has from 35 to 75 percent rock fragments.

The C1 horizon has a hue of 2.5YR or 5YR, value of 5 dry, 4 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is loamy sand. The soil has from 35 to 75 percent rock fragments.

The C2 horizon has a hue of 2.5YR or 5YR, value of 5 dry, 4 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is sand. The soil has from 35 to 75 percent rock fragments.

The C3 horizon has a hue of 2.5YR or 5YR, value of 4 or 5 dry, 4 moist, and a chroma 6 or 8. The texture of the fine earth fraction is loamy sand. The soil has from 35 to 95 percent rock fragments.

Torriorthents, LSC, 1 and 2

Torriorthents consist of shallow to deep, well drained soils that formed in residuum from limestone and sandstone. They are on steep to very steep talus and escarpment sideslopes with slopes of 40 to 120 percent. Means range from 20 to 25 centimeters for annual precipitation, 14 to 13 degrees Celsius for air temperature and 1465 to 1585 meters for elevation. Approximately 60 percent of the annual precipitation occurs during the period of 01 October and 31 March.

A representative pedon of this soil is not included due to variability at this categorical level.

The depth to bedrock ranges from less than 25 centimeters to over 150 centimeters. The reaction of the solum ranges from 7.8 to 8.2 and the base saturation is 100 percent.

These soils have A horizons and C horizons. They may or may not have B horizons.

The A horizon has a hue of 5YR or 7.5YR, value of 5 or 6 dry, 4 moist, and chroma of 3 through 6. The texture of the fine earth fraction ranges from sandy loam to loam. The rock fragment content ranges from 55 to 70 percent.

The C horizons have a hue of 5YR or 10YR, value of 5 through 7 dry, 4 through 6 moist, and a chroma of 4 through 6. The texture of the fine earth fraction ranges from sandy loam to loam. The rock fragment content ranges from 35 to 75 percent.

Lithic Ustic Torriorthents, LSC, 2, loamy-skeletal, carbonatic, mesic

Lithic Ustic Torriorthents, LSC, 2, loamy-skeletal, carbonatic, mesic consists of very shallow, well drained soils that formed in residuum from sandstone and limestone. They are on strongly sloping to steep slideslopes with slopes of 15 to 40 percent. Means are 25 centimeters for annual precipitation, 13 degrees Celsius for annual air temperature, and 1435 meters for elevation. Approximately 60 percent of the annual precipitation occurs during the period between 01 October and 31 March.

A representative pedon of this soil is located in the SW 1/4 NW 1/4. Sec. 7, T.30N., R.15W.

A--0 to 5 centimeters; brown (7.5YR 5/4) very gravelly fine sandy loam, brown (7.5YR 4/4) moist; weak very fine granular structure; soft, very friable, nonsticky and slightly plastic; few very fine roots; common very fine pores; 34 percent gravels, 12 percent cobbles; 6 percent stone, 2 percent boulder; moderately alkaline (8.0); abrupt smooth boundary.

C1--5 to 18 centimeters; light brown (7.5YR 6/4) very cobbly very fine sandy loam, brown (7.5YR 4/4) moist, massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine pores; 25 percent gravel, 20 percent cobble; moderately alkaline (8.4).

R--18 centimeters; hard unweatherd sandstone.

The solum thickness ranges from 5 to 10 centimeters and the depth to bedrock ranges from 8 to 18 centimeters. The reaction of the solum ranges from 7.8 to 8.0 and the base saturation is 100 percent.

The A horizon has a hue of 7.5YR, value of 5 or 6 dry, 4 moist, and a chroma of 4. The texture of the fine earth fraction is very fine sandy loam or fine sandy loam. The A horizon has 35 to 60 percent rock fragments.

The C horizon were present has a hue 7.5YR, value of 6 dry, 4 moist, and a chroma of 4. The texture of the fine earth fraction is very fine sandy loam. The C horizon has 35 to 60 percent rock fragments.

Ustorthents, LSC, 3 and 4

Ustorthents consists of shallow to deep, well drained soils that formed in residuum from limestone and sandstones. They are on steep to very steep talus and escarpment sideslopes with slopes of 40 to 120 percent. Means range from 30 to 40 centimeters for annual precipitation, 12 to 13 degrees Celsius for air temperature and 1525 to 1830 meters for elevation. Approximately 60 percent of the annual precipitation occurs during the period of 01 October and 31 March.

A representative pedon of this soil is not included due to variability at this categorical level.

The depth to bedrock ranges from less than 25 centimeters to over 150 centimeters. The reaction of the solum ranges from 7.8 to 8.2 and the base saturation is 100 percent.

The soils have A horizons and C horizons. They may or may not have B horizons.

The A horizon has a hue of 7.5YR or 10YR, value of 5 or 6 dry, 4 moist, and chroma of 4 through 6. The texture of the fine earth fraction ranges from very fine sandy loam, fine sandy loam, to sandy loam. The rock fragment content ranges from 35 to 75 percent.

The C horizons have a hue of 7.5YR or 10YR, value of 4 through 7 dry, 4 through 6 moist, and a chroma of 6. The texture of the fine earth fraction ranges from very fine sandy loam, fine fine sandy loam, to sandy loam. The rock fragment content ranges from 35 to 75 percent.

Lithic Ustorthents, LSC, 4, loamy-skeletal, mixed (calcareous), mesic

Lithic Ustorthents, LSC, 4, loamy-skeletal, mixed (calcareous), mesic consists of very shallow, well drained soils that formed in residuum from sandstone. They are on nearly level to steep benches and sideslopes with slopes of 0 to 40 percent. Means are 35 centimeters for annual precipitation, 13 degrees Celsius for annual air temperature, and 1525 meters for elevation. Approximately 60 percent of the normal precipitation occurs during the period of 01 October to 31 March.

A representative pedon of this soil is located in the NW 1/4 NW 1/4, Sec. 36, T.31N., R.14W.

A--0 to 5 centimeters; yellowish red (5YR 5/6) very gravelly fine sandy loam, yellowish red (5YR 4/6) moist; single grained; loose, loose, nonsticky and nonplastic; common very fine and fine roots; common very fine and fine pores; 20 percent gravels, 10 percent cobble, 6 percent stone, 2 percent boulder; mildly alkaline (7.8); abrupt smooth boundary.

C1--5 to 15 centimeters; yellowish red (5YR 4/6) very gravelly sandy loam, reddish brown (5YR 4/4) moist; single grained; loose, loose, nonsticky and nonplastic; few very fine and fine roots; common very fine and fine pores; 40 percent gravels; mildly alkaline (7.8).

R--18 centimeters; hard unweathered sandstone.

The solum thickness ranges from 3 to 8 centimeters and the depth to bedrock ranges from 8 to 46 centimeters. The reaction of the solum ranges from to 7.8 and 8.0 the base saturation is 100 percent.

The A horizon has a hue of 2.5YR or 5YR, value of 4 or 5 dry, 4 moist and a chroma of 4 through 8. The texture of the fine earth fraction is loam, very fine sandy loam, or fine sandy loam. The A horizon has 35 to 80 percent rock fragments.

The C horizon were present has a hue of 2.5YR or 5YR, value of 4 or 5 dry, 4 moist, and a chroma of 4 through 8. The texture of the fine earth fraction is loam, fine sandy loam or sandy loam. The C horizon has 40 to 70 percent rock fragments.

Lithic Ustochrepts, LSC, 4, loamy, mixed (calcareous), mesic

Lithic Ustochrepts, LSC, 4, loamy, mixed (calcareous), mesic consists of shallow well drained soils that formed in residuum from sandstone. They are on nearly level to moderately steep benches andd terraces with slopes of 0 to 15 percent. Means are 35 centimeters for annual precipitation, 13 degrees Celsius for annual air temperature, and 1525 meters for elevation. Approximately 60 percent of the normal precipitation occurs during the period of 01 October to 31 March.

A representative pedon of this soil is located in the NE 1/4 SE 1/4, Sec. 3, T.29N., R.13W.

A--0 to 8 centimeters; strong brown (7.5YR 5/6) gravelly very fine sandy loam, strong brown (7.5YR 4/6) moist; single grained; loose, loose, nonsticky and nonplastic; few very fine and fine roots; common very fine pores; 20 percent gravels; mildly alkaline (7.8); abrupt smooth boundary.

Bk--8 to 28 centimeters; yellowish red (5YR 5/6) fine sandy loam, yellowish red (5YR 4/6) moist; weak medium subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; common very fine and fine roots; common very fine and fine pores; 5 percent gravels; mildly alkaline (7.8); clear smooth boundary.

Ck--28 to 43 centimeters; reddish brown (5YR 5/4) gravelly fine sandy loam, reddish brown (5YR 4/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine roots; common very fine and fine pores; 30 percent gravels; moderately alkaline (8.0).

R--43 centimeters; hard unweathered sandstone.

The solum thickness ranges from 13 to 40 centimeters and the depth to bedrock ranges from 28 to 43 centimeters. The reaction of the solum ranges from 7.8 to 8.0 and the base saturation is 100 percent.

The A horizon has a hue of 5YR or 7.5YR, value of 4 or 5 dry, 4 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is very fine sandy loam or fine sandy loam. The A horizon has 0 to 35 percent rock fragments.

The Bk horizon has a hue of 5YR or 7.5YR, value of 5 dry, 4 moist, and a chroma of 8. The texture of the fine earth fraction is very fine sandy loam or fine sandy loam. The Bk horizon has 0 to 35 percent rock fragments.

The Ck horizon were present has a hue of 5YR, value of 5 or 6 dry, 4 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is very fine sandy loam or fine sandy loam. The Ck horizon has 15 to 35 percent rock fragments.

Typic Ustochrepts, LSC, 4, course-loamy, mixed, mesic

Typic Ustochrepts, LSC, 4, course-loamy, mixed, mesic consists of moderately deep and deep, well drained soils that formed in residuum from sandstone. They are on nearly level to moderately steep valley plains and upland benches with slopes of 0 to 15 percent. Means are 35 centimeters for annual precipitation, 13 degrees Celsius for annual air temperatures, and 1525 meters for elevation. Approximately 60 percent of the normal precipitation occurs during the period of 01 October to 31 March.

A representative pedon of this soil is located in the NW 1/4 NE 1/4, Sec. 11, T.29N., R.13W.

A--0 to 8 centimeters; yellowish red (5YR 4/6) very fine sandy loam, reddish brown (5YR 4/4) moist; weak very fine granular structure; soft, very friable, nonsticky and nonplastic; few very fine roots; common very fine pores; mildly alkaline (7.8); abrupt smooth boundary.

Bk--8 to 50 centimeters; reddish yellow (5YR 6/6) sandy loam, yellowish red (5YR 4/6) moist; weak medium subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; common very fine and fine roots; common very fine and fine pores; mildly alkaline (7.8); gradual smooth boundary.

Ck--50 to 90 centimeters; reddish yellow (5YR 6/6) sandy loam, yellowish red (5YR 4/6) moist; weak medium subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; few very fine roots; few very fine pores; mildly alkaline (7.8)

R--90 centimeters; hard unweathered sandstone.

The solum thickness ranges from 23 to 53 centimeters and the depth to bedrock ranges from 53 to over 100 centimeters. The reaction of the solum ranges from 7.8 to 8.0 and the base saturation is 100 percent.

The A horizon has a hue of 5YR or 7.5YR, value of 4 or 5 dry, 4 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is loam, very fine sandy loam, fine sandy loam, and sandy loam. The A horizon has 0 to 15 percent rock fragments.

The Bk horizon has a hue of 5YR or 7.5YR, value of 4 through 6 dry, 4 or 5 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is very fine sandy loam or sandy loam. The Bk horizon has no rock fragments.

The Ck horizon were present has a hue of 5YR, value of 5 or 6 dry, 4 moist, and a chroma of 4 or 6. The texture of the fine earth fraction is very fine sandy loam, fine loam or sandy loam. The Ck horizon has no rock fragments.

APPENDIX D

GLOSSARY OF RANGE MANAGEMENT

and

TERRESTRIAL ECOSYSTEM TERMS

GLOSSARY OF RANGE MANAGEMENT and TERRESTRIAL ECOSYSTEM TERMS

Allowable Capability. Terrain which is or has the potential to be grazed by domestic livestock on a sustained-yield basis under reasonable management goals. There are two categories as follows:

a. Potential Capability (PC). Areas where current on soil loss exceed allowable soil loss because it does not have sufficient effective ground cover to protect the soil. These soils have the potential to recover. This category is not given grazing capacity until it becomes full capacity terrain. For example, an area has 20 percent ground cover when 40 percent is needed to hold the soil in place. When ground cover exceeds 40 percent, the area is reclassified as full capacity.

b. Full Capability (FC). Terrain which is presently stable because effective ground cover is holding soil loss to an acceptable level. These are the areas used to compute estimated grazing capacity.

Animal Unit Month (AUM). An AUM is the grazing capacity for a pasture or grazing unit. Unless otherwise noted, it usually means the number of grown cattle (adults weighing 850-1,000 pounds) that can graze an area for one month. Lighter or younger animals generally require less forge so a conversion to yearlings will allow for more animals. Horses generally require more forage so a conversion to horses will allow for fewer horses.

aridic: A soil moisture regime that has no moisture available for plants for more than half the cumulative time that the soil temperature at 50cm is above 50°C, and has no period as long as 90 consecutive days when there is moisture for plants while the soil temperature at 50cm is continuously above 8°C. "Resource Conservation Glossary."

badland: A land type generlaly devoid of vegetation and broken by an intricate maze of narrow ravines, sharp crests, and pinnacles resulting from serious erosion of soft geologic material. "Glossry of Soil Science Terms."

calcareous soil: Soil containing sufficient free calcium carbonate or magnesium carbonate to effervesce carbon dioxide visibly when treated with cold 0.1 normal hydrochloric acid. "Resource Conservation Glossary."

climatic climax: Theoretical community toward which all successional development in a given region is tending. "Fundamentals of Ecology."

climax: A plant community of the most advanced type capable of development under and in dynamic equilibrium with the prevailing environment. "Glossary of Soil Science Terms."

cobble: Rock fragments ranging in size from three to ten inches in diameter.

color, soil: A color designation system that specifies the relative degrees of three simple variables of color: hue, value, and chroma. "Glossary of Soil Science Terms."

condition: condition is a subjective expression of the status or health of the vegetation and soil relative to their combined potential to produce a sound and stable biotic community. Soundness and stability are evaluated relative to a standard that encompasses the composition, density, and vigor of the vegetation and the physical characteristics of the soil.

control section: (As used in the Soil Classification System of the National Cooperative Soil Survey in the United States). Arbitrary depths of soil material within which certain diagnostic horizons, features, and other characteristics are used as differentiate in the classification of soils. The thickness is specific for each characteristic being considered but may be different for different characteristics. "Resources Conservation Glossary."

correlation (statistics): An expression indicating the degree of association of mutual relationship between the value of two attributes, not necessarily a casual or dependent relationship. "Resource Conservation Glossary."

current soil loss: The reate of soil erosion occurring under existing conditions of effective ground cover.

decreaser plants: These plants are desirable forage plant's characteristic of pristine or well-managed ranges. These species normally are the most palatable and will decrease with over-grazing.

depth, effective soil: The depth of soil material that plant roots can penetrate readily to obtain water and plant nutrients: the depth to a layer that differs sufficiently from the overlying material in physical or chemical properties to prevent or seriously retard the growth of roots. "Resource Conservation Glossary."

diagnostic horizons: (As used in the Soil Classification System of the National Cooperative Soil Survey in the United States): Combinations of specific soil characteristics that are indicative of certain classes of soils. Those which occur at the soil surface are called epipedons, those below the surface diagnostic subsurface horizons. "Resource Conservation Glossary."

albic horizon: A mineral soil horizon from which clay and free iron oxides have been removed or in which the oxides have been segregated to the extent that the color of the horizon is determined primarily by the color of the primary sand and silt particles rather than by coatings on these particles.

calcic horizon: A mineral soil horizon of secondary carbonate enrichment that is more than 15cm (6 inches) thick, has a calcium carbonate equivalent of more than 15 percent, and has at least 5 percent more calcium carbonate equivalent than the underlying C horizon.

cambic horizon: A mineral soil horizon that has a texture of loamy very fine sand or finer, has soil structure rather than rock structure, contains some weatherable minerals, and is characterized by the lateration of removal of mineral material as indicated by mottling or gray colors, stronger chromas or redder hues than in underlying horizons, or the removal of carbonates. The cambic horizon lacks cementation or induration and has too few evidences of illuviation to meet the requirements of the argillic or spodic horizon.

ochric epipedon: A surface horizon of mineral soil that is too light in color, too high in chroma, too low in organic carbon, or too thin to be a plaggen, mollic, umbric, anthropic, or histic epipedon, or that is both hard and massive when dry.

ecosystem: A community, including all component organisms, together with the environment, forming an interacting system. "Resource Conservation Glossary."

ecotone: A transition line or strip of vegetation between two communities, having characteristics of both kinds of neighboring vegetation as well as characteristics of its own. "Resource Conservation Glossary."

ecotype: A locally adapted population of two species which has a distinctive limit of tolerance of environmental factors. See biotype. "Resource Conservation Glossary."

edaphic climax: The ultimate vegetation where substratal peculiarities are sufficiently pronounced to produce a self-perpetuating vegetation that differs from the climatic climax of the area. "Plant Communities (Daubenmire)."

ephemeral stream: A stream or portion of a stream that flows only in direct response to precipitation, and receives little or no water from springs or no long continued supply from snow or other sources, and its channel is at all times above the water table. "Resource Conservation Glossary."

erosion: (1) The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep. (2) Detachment and movement of soil or rock fragments by water, wind, ice, or gravity. "Resource Conservation Glossary."

evergreen: Perennial plants that are never entirely without green foliage. "Resource Conservation Glossary."

existing effective ground cover (Et): Cover presently occupying the site.

fire (pyrix) climax: A plant community which maintains its composition and structure only as a consequence of periodic burning. "Plant Communities (Daubenmire)."

forage production (climax): The amount of vegetation that is produced annually under the climax vegetative community and that is available and palatable to livestock or wildlife.

frigid: A soil temperature regime that has mean annual soil temperatures of more than 0°C, but less than 8°C, more than 5°C difference between mean summer and mean winter soil temperatures at 50cm., and warm summer temperatures. "Soil Taxonomy."

gravel: Rock fragments ranging in size from 2mm to three inches in diameter.

herbage production (climax): The total amount of herbaceous vegetation that is produced annually under the climax vegetative community measured to a height of 4.5 feet. This includes grasses, shrubs, and trees.

hyperthermic: A soil temperature regime that has mean annual soil temperatures of 22°C or more and more than 5°C difference between mean summer and mean winter soil temperatures at 50cm.

included soils: Soils that are not present in every delineation of the subject mapping unit.

increaser plants: These plants are less desirable plants which may thrive at the expense of the decreaser species. Under continued over-grazing, these plants also will decrease, being replaced by less productive annual plants and by the less palatable invader species.

invader plant: These are the least desirable species. They normally increase, or invade, the range as the more desirable species disappear.

K-factor: the Soil Erodibility Factor used in the Universal Soil Loss Equation which represents the capability of a soil surface to resist sheet erosion. It is a function of the physical and chemical properties of the soil.

lithic contact: a boundary between soil and continuous, coherent underlying rock that has a hardness of three or more (Mohs scale). "Soil Taxonomy."

mesic: A soil temperature regime that has mean annual soil temperatures of 8°C or more but less than 15°C and more than 5°C difference between mean summer and mean winter soil temperatures at 50cm. "Soil Taxonomy."

microclimate: (i) The climate condition of a small area resulting from the modification of the general climatic conditions by local differences in elevation or exposure. (ii) The sequence of atmospheric changes within a very small region. "Glossary of Soil Science terms."

mineral soil: A soil consisting predominantly of, and having its properties determined predominantly by, mineral matter, usually containing less than 20 percent organic matter but sometimes containing an organic surface layer up to 30 centimeters thick. "Resource Conservation Glossary."

natural soil loss (NSL): The rate of soil loss under conditions associated with a climax category, (minimum rate). The boundary between potential capability and no capability is the line of constant slope as determined at the point where "TSL" is equivalent to "NSL."

no allowable capability (NC): Terrain incapable of being grazed by domestic livestock under reasonable management goals. These areas consist of land under natural conditions that are not capable of producing vegetation or are inaccessible to livestock. This classification also includes soils that are not capable of producing more vegetation than is needed to prevent erosion rates that exceed the allowable soil losss.

order: An indication of the intensity of soil mapping. Order one is very intense and order five is very general. Orders two, three, and four are of intermediate intensity.

pace transects: A pace transect is not permanent. It is used to assist in estimating condition and trend of rangeland; used to delineate vegetation condition classes; used to determine changes in condition; and use to gather composition, vigor, cover, and soil condition data.

parent material (soils): The unconsolidated, more or less chemically weathered mineral orlorganic matter from which the solum of soils has developed by pedogenic processes. The C horizon may or may not consist of materials similar to those from which the A and B horizons developed. "Resource Conservation Glossary."

phase, soil: A subdivision of soil taxon, usually a soil series or other unit of classification based on characteristics that affect the use and management of the soil but which do not vary sufficiently to differentiate it as a separate soil series. A variation in a property or characteristic, such as degree of slope, degree of erosion, content of stones, texture of the surface, etc. Phases of soil series are the major components of the soil mapping units shown on detailed soil maps in the United States. "Resource Conservation Glossary."

potential natural vegetation (PNV): Potential natural vegetation is the vegetation that would exist today if man were removed from the scene and if the resulting plant succession were telescoped into a single moment. As applied in mapping of Terrestrial Ecosystems PNV is intended to be compatible with the theory of "poly-climax" (climatic climax/edaphic climax).

potential effective ground cover (Pt): The maximum cover that can exist for a given terrestrial ecosystem under one of the following climax categories: climatic, edaphic, fire, topographic, or zootic.

potential soil loss (PSL): The rate of soil loss that would occur under conditions of complete removal of the vegetation and litter portion of effective ground cover. (Maximum rate).

productivity, soil: The capacity of a soil, in its normal environment, for producing a specified plant or sequence of plants under a specified system of manangement. The "specified" limitations are necessary since no soil can produce all crops with equal success nor can a single system of management produce the same effect on all soils. Productivity emphasizes yields. "Glossary of Soil Science Terms."

rock fragments: All fragments greater than 2mm. Includes gravel, cobble, and stone.

semiarid: A term applied to regions or climates where moisture is normally greater than under arid conditions but still definitely limits the growth of most crops. Dryland farming methods or irrigation generally are required for crop production. The upper limit of average annual precipitation in the cool semiarid regions is as low as 15 inches, whereas in tropical regions it is high as 45 or 50 inches. "Resource Conservation Glossary."

seral: A plant community that does not represent the potential natural vegetation, but that is intermediate in the sequence of plant community successional stages.

series (vegetation): Series is a subdivision of subformation. This class includes additional specificity of physiognomy and structure of the vegetation. Series are characterized by an individual climax dominant species determined by height and percent foliar cover and regional distribution.

shrub: As used in the UNESCO Vegetation Classification System, "mainly composed of caespitose woody phanerohytes 0.5 to 5 meters tall."

skeletal: Rock fragments greater than 2mm in diameter make up more than 35 percent by volume of the whole soil in the control section.

soil classification: The systematic arrangement of soils into groups or categories on the basis of their characteristics. Broad groupings are made on the basis of general characteristics; subdivisions on the basis of more detailed differences in specific properties. The categories of the system used in the U.S. since 1966 are briefly discussed below. "Resource Conservation Glossary."

> order: The category at the highest level of generalization in the soil classification system. The properties selected to distinguish the orders are reflections of the degree of horizon development and the kinds of horizons present.

suborder: This category narrows the ranges in soil moisture and temperature regimes, kinds of horizons, and composition, according to which of these is most important. Moisture and/or temperature or soil properties associated with them are used to definee the suborders of the orders Alfisoils, Mollisols, Oxisols, Ultisols, and Vertisols. Kinds of horizons are used for the order Aridisols, composition for the orders Histosols and Spodosols, and combinations for the orders Entisols and Inceptisols.

great group: The classes in this category contain soils that have the same kind of horizons in the same sequence and have similar moisture and temperature regimes. Exceptions to the horizon sequences are made for horizons near the surface that may get mixed or lost to erosion if plowed.

subgroup: The great groups are subdivided into subgroups that show the central properties of the great group, intergrade subgroups that show properties of more than one great group, and other subgroups for soils with typical properties that are not characteristic of any great group.

family: Families are defined largely on the basis of physical and mineralogic properties of importance to plant growth.

series: The soil series is a group of soils having horizons similar in differentiating characteristics and arrangement in the soil profile, except for texture of the surface portion, or if genetic horizons are thin or absent, a group of soils that, within defined depth limits, is uniform in all soil characteristics diagnostic for series.

soil correlation: The process of defining, mapping, naming, and classifying the kinds of soils in a specific soil survey area, the purpose being to insure that soils are adequately defined, accurately mapped, and uniformly named in all soil surveys made in the United States. Also concerned with the standards and techniques for describing soils and with the application and development of soil classification. "Resource Conservation Glossary."

soil genesis: 1) The mode of origin of the soil with special reference to the processes or soil-forming factors responsible for the development of the solum or true soil from the unconsolidated parent material. 2) A division of soil science concerned with the origin of soil "Resource Conservation Glossary."

soil loss: The predicted net average annual soil loss from a site due to sheet and rill erosion under variable canopy cover, effective ground cover conditions, slope-effect parameters, precipitation and management parameters. Sediment volumes that reach off-site areas are actually lower and must be adjusted by a delivery coefficient.

soil morphology: 1) The physical constitution, particularly the structural properties, of a soil profile as exhibited by the kinds, thickness, and arrangement of the horizons in the profile, and by the texture, structure, consistency, and porosity of each horizon. 2) The structural characteristic of the soil or any of its parts. "Resource Conservation Glossary."

soil structure: The combination or arrangement of primary soil particles into secondary particles, units, or peds (Table 4). The secondary units are characterized and classified on the basis of size, shape, and degree of distinctness into classes, types, and grades, respectively. "Resource Conservation Glossary."

stones: Rock fragments 10 to 24 inches in diameter.

subsoil: The B horizons of soils with distinct profiles in soils with weak profile development, the subsoil can be defined as the soil below the plowed soil (or its equivalent of surface soil), in which roots normally grow. Although a common term, it cannot be defined accurately. It has been carried over from early days when "soil" was conceived only as the plowed soil and that under it as the "subsoil." "Resource Conservation Glossary."

surface layer: The uppermost part of the soil, or "A1" horizon.

surface soil: The uppermost part of the soil ordinarily moved in tillage or its equivalent in uncultivated soils, ranging in depth from about 5 to 8 inches. Frequently designated as the plow layer, the Ap layer, or the Ap horizon. "Resource Conservation Glossary"

terrestrial ecosystem survey: A component integrated approach for a systematic recognition of terrestrial ecosystems (soil/vegetation/climate) along a gradient.

texture, USDA: The relative proportions of sand, silt and clay as described by classes established by the USDA.

tolerance effective ground cover (Tt): The minimum threshold cover necessary to avoid unacceptable degradation of the soil resource.

tolerance soil loss (TSL): The maximum rate of soil loss that can occur while sustaining inherent site productivity. (Generates line between full capability and "potential capability.")

topographic climax: Wherever local topography usually operating through microclimate produces a distinctive vegetative climax (Daubermire). "Plant Communities."

trend: Trend expresses the direction of change, if any, in condition, in response to past and existing livestock management practices, combvined with other environmental factors.

ustic: A soil moisture regime that is intermediate between the aridic and udic regimes and common in temperate sub-humid or semiarid regions, or in tropical and subtropical regions with a monsoon climate. A limited amount of moisture is available for plants but occurs at times when the soil temperature is optimum for plant growth. "Resource Conservation Glossary."

udic: A soil moisture regime that is neither dry for a long as 90 cumulative days nor for as long as 60 consecutive days in the 90 days following the summer solstice at periods when the soil temperature at 50cm is above 5°C.

value, color: The relative lightness or intensity of color and approximately a function of the square root of the total amount of light. One of the three variables of color. See Munsell color system hue, and chroma. "Resource Conservation Glossary."

woodland: As used in the UNESCO Vegetation Classification System, "Composed of trees at least 5 meters tall with crowns no usually touching but with a coverage of at least 40 percent.

zootic climax: The community so derived, in which the dominant herbivore and the modified vegetation form a dynamic and interlocking system. . . (Plant Communities, Daubemire). This includes pyro-zootic climaxes in which "repeated burning that is required to produce fire climaxes is always a consequence of man's activity." This definition does not include natural fire climaxes where man is not involved.