

United States
Department
of Agriculture

Forest Service
Intermountain Region

DIXIE NATIONAL FOREST

Environmental Assessment

for

JONES CORRAL C&H ALLOTMENT

on the

Powell Ranger District
Dixie National Forest

May 1993

36pgs

6/7/93

TABLE OF CONTENTS

Page

CHAPTER I. PROPOSAL

A. Introduction	I-1
B. Proposed Action	I-1
C. Purpose and Need	I-2
D. Decision to be Made	I-3
E. Background	I-3
F. Public Participation	I-4

CHAPTER II. ALTERNATIVES

A. Alternatives Considered in Detail	II-1
B. Alternatives Considered, But No Analyzed in Detail	II-4
C. Summary of Alternatives	II-5
D. Discussion of Alternative Grazing Strategies	II-10

CHAPTER III. AFFECTED ENVIRONMENT

A. Livestock Grazing	III-1
B. Recreation and Visual Resources	III-1
C. Soil and Water	III-2
D. Fisheries	III-2
E. Wildlife and Threatened, Endangered, and Sensitive Species	III-3
F. Vegetation	III-5

CHAPTER IV. ENVIRONMENTAL CONSEQUENCES

CHAPTER V. LIST OF PREPARERS

CHAPTER VI. LIST OF AGENCIES AND PERSONS CONSULTED

APPENDIXES

A. Vicinity Map	
B. Alternative Maps	
C. Utilization Standards for Forage Species	
D. Grazing Capacity Summary	
E. Issues, Concerns, and Opportunities (Identified But Not Evaluated)	
F. Public Involvement Documents	
G. Management Area Descriptions	
H. Monitoring	
I. Cultural Resources	
J. Biological Evaluation (See Project File)	
K. Project Costs (See Project File)	
L. References	

CHAPTER I. PROPOSAL

A. INTRODUCTION

The Powell Ranger District of the Dixie National Forest has prepared this Environmental Assessment (EA) to document the analysis of alternative management actions, including the no-action alternative that is documented in the Jones Corral C&H Allotment Management Plan (AMP), dated 1980. The AMP is not consistent with the Dixie National Forest Land and Resource Management Plan (Dixie National Forest L&RMP). In 1980, the AMP for the allotment was split into two divisions, the Willow Springs and Mud Springs Divisions. These divisions are grazed by livestock using separate rotation grazing systems. Currently, the Jones Corral C&H Allotment does not have an AMP that addresses how management should be carried out to meet the direction contained in the Dixie National Forest L&RMP. Existing conditions on the allotment do not meet the desired future conditions. Therefore, it is necessary to prepare a new AMP to meet present Forest Service policy and direction.

The Federal Land Policy Management Act (FLPMA), as amended by the Public Rangelands Improvement Act allows for AMP's to be included in grazing permits at the discretion of the Secretary of Agriculture (43 USU (1752(d)), as amended by 92 Stat. 1803 (1978). The Secretary has elected to exercise this discretion, and has delegated his authority to issue regulations in this area to the Chief of the Forest Service (see 36 CFR 222.1 and 222.2).

An AMP is defined in FLPMA as a document prepared in consultation with lessees or permittees applying to livestock operations on the public lands prescribing (1) the manner in and extent to which livestock operations will be conducted in order to meet multiple use, sustained-yield, economic, and other needs and objectives, (2) describing range improvements to be installed and maintained, and (3) containing such other provisions relating to livestock grazing and other objectives found by the Secretary to be consistent with the provisions of FLPMA.

The allotment is located approximately 20-26 miles northeast of Panguitch, Utah, and 5-14 miles southeast of Circleville, Utah. The Jones Corral C&H Allotment lies in both the Sevier River and the East Fork of the Sevier River drainages (Great Basin). A vicinity map showing the project area is included in Appendix A.

The Environmental Analysis and Assessment were developed under the implementing regulations of the National Environmental Policy Act (NEPA), Council on Environmental Quality, Title 40, Code of Federal Regulation, Parts 1500-1508; and the National Forest Management Act (NFMA), Title 36, Code of Federal Regulations, Part 219. Further Direction is provided in the 1986 Dixie National Forest LRMP.

B. PROPOSED ACTION

Under this proposed action, the present Jones Corral C&H Allotment would be divided into two separate allotments. The new allotments would be identified as the Jones Corral C&H Allotment and the Willow Springs C&H Allotment. These allotments would be managed as follows:

Jones Corral C&H Allotment: This allotment would be grazed using a four pasture deferred rotation grazing system. Two of the three lower elevation reseeded (primarily crested wheatgrass) units would be grazed early summer and then livestock would be moved to the Enclosure Unit (high elevation). The Enclosure Unit would be fenced to separate most of the high elevation aspen/parklands from the lower elevation sagebrush covered lands. With this fence, the lower sagebrush lands would be grazed until approximately August 15 each year, after which time the whole unit would be grazed until proper utilization of forage is reached. After the Enclosure Unit is grazed, cattle would be placed in the remaining reseeded unit (lower elevation) until the end of the grazing season. Water developments and fencing would be necessary to implement this proposed alternative.

Willow Springs C&H Allotment: This allotment would be grazed using a four pasture deferred rotation grazing system. Water developments would be needed to improve the effectiveness of the grazing system.

The grazing systems for both allotments would be designed to meet desired future conditions, standards and guidelines as stated in the Dixie National Forest L&RMP.

C. PURPOSE AND NEED

The proposed action is designed to implement and incorporate the goals and objectives of the 1986 Dixie National Forest L&RMP. The Jones Corral C&H Allotment has an AMP, however, it is outdated and is not consistent with the Dixie National Forest L&RMP.

Existing conditions on the allotment do not meet the desired future conditions, standards and guidelines identified in the Dixie National Forest L&RMP. Because of these conditions, actions selected by the deciding officer will be incorporated into the new AMP. More specifically, the proposal has the following purposes:

The Jones Corral C&H Allotment is in an area that is considered to be of especially high value as wildlife habitat. The area should provide nearly optimum habitat conditions for wildlife species (deer, elk, grouse, and other non-game animals) (Dixie National Forest L&RMP, Chapter IV-82).

The Jones Corral C&H Allotment has some areas that are considered big-game winter range (deer and elk). The desired future condition is to improve forage production while retaining needed thermal cover, and vehicle traffic will be restricted to prevent stress on wintering animals (Dixie National Forest L&RMP, Chapter IV-97).

The Jones Corral C&H Allotment's grazing capacity is presently obligated under Term Grazing Permits. The desired future condition is to permit livestock grazing and develop allotment management plans that will ensure proper management (Dixie National Forest L&RMP, Chapter IV-21).

The recreation opportunities are high within the area of Jones Corral. These uses are primarily associated with visual resources and hunting of big game species. The management area direction is to manage for the visual resources so that management activities maintain or improve the quality of recreation opportunities (Dixie National Forest L&RMP, Chapter IV-68).

This EA documents analysis of site-specific, on-the-ground proposals. It is not a general management plan for the two allotments. Actions selected by the deciding officer, as a result of the analysis documented in this EA, will be documented in an AMP that will guide future management of the allotments. The environmental analysis documented in this EA is tiered to the Dixie National Forest L&RMP approved on September 2, 1986. It does not re-analyze the Management Area allocations already specified in the Dixie National Forest L&RMP. The scope of the analysis is limited to consideration of the proposed action and its alternatives, subject to existing programmatic goals, objectives, standards, and guidelines set forth in the Dixie National Forest L&RMP.

This EA is not a decision document. It does not describe the decision to be made by the deciding officer with regard to the proposed action. This EA discloses the environmental consequences of implementing the proposed action and alternatives to that action. The Deciding Officers decision is stated and explained in the Decision Notice accompanying this EA.

D. DECISION TO BE MADE

The allotment is currently being managed under annual operating plans following the guidance of the AMP approved in 1980. Livestock use on the allotment is adjusted each year to meet resource needs. The current AMP must be revised to bring the allotment into compliance with NEPA regulations and the Dixie National Forest L&RMP.

The decision to be made from this EA is to choose one of five alternatives for managing the present Jones Corral C&H Allotment. These alternatives will be described in Chapter II.

E. BACKGROUND

Prior to the creation of the National Forest in this area, the allotment was grazed by large numbers of sheep and cattle and some horses. Since the creation of the National Forest, the area has been used primarily by cattle and horses. Actual use records are non-existent prior to the late 1920's. At that time, numbers fluctuated from 850 to 950 head of cattle and horses grazing from 4/15 to 10/31. Overstocking problems were recognized through the 1940's and 1950's and as a result, reductions in livestock numbers were made to improve the deteriorating forage and watershed conditions. Horse permits were eliminated during this period. During the early 1960's cattle numbers were adjusted to 318 cattle grazing from 6/1 to 10/10.

Prior to 1955, permittees from Circleville, grazed 110 cattle on the old West Side Allotment in the Mud Springs area. Because of the lack of water and forage on the lower elevation range, livestock drifted to the head of

Burnt Hollow, Collings Hollow, and Mud Springs where they remained for the summer. These areas are steep and unsuitable for cattle grazing. The West Side Allotment was temporarily closed to livestock grazing through a Memorandum of Understanding in 1955. In 1960, the permittees agreed to a permanent closure of the allotment. In 1963, Reid Sudweeks (15 cattle) and Ira McDonough (15 cattle), West Side Allotment permittees, and Ward Dalton (43 cattle) and William Horton (36 cattle), Smith Canyon Allotment permittee, were allowed to transfer their permitted livestock to the Widtsoe C&H Allotment.

When the Mud Springs pinyon/juniper chaining and reseeding project was completed and established in 1975, 109 head of cattle were transferred to the West Side C&H Allotment and term permits were issued. The allotment was then known as the Mud Springs C&H Allotment.

In 1976, the Forest Service proposed a grazing system to the permittees which included combining the Mud Springs C&H Allotment with the Jones Corral C&H Allotment in order to better manage the allotments. This was done on a trial basis for three years (1976-1979). This combination was considered successful and beneficial to the forage resource and the permittees. The combined divisions contain 37,556 acres of National Forest System lands.

In 1980, an Allotment Management Plan was approved and resulted in the allotment being divided into two divisions as follows:

Mud Springs Division-300 cattle, 6/1 to 10/10, and grazed under a 3 pasture deferred rotation grazing system.

Willow Springs Division-127 cattle, 6/1 to 10/10, and grazed under a 4 pasture rest rotation grazing system.

In addition to domestic livestock grazing, use by deer and elk has been important. Most of the allotment is deer and elk summer range and the lower elevation range is considered part of their winter range. The deer herd is presently near or below the desired herd size and does not compete significantly for forage. However, elk numbers have increased and are now near desired herd size. Elk do compete directly with livestock for forage on the spring-summer-fall range.

F. PUBLIC PARTICIPATION

One of the first steps in the scoping process for the Jones Corral C&H Allotment was to identify members of the public who could be affected by the proposed action and/or who might have an interest in the decision to be made for this proposed action. Other Federal, State, and local governmental agencies were considered in this process. These individuals and organizations were notified that an Allotment Management Plan was proposed to implement the Dixie National Forest L&RMP on the Powell Ranger District and were informed of decisions to be made. They were asked to comment on or involve themselves in the analysis of the proposed action and its alternatives. This was accomplished through notices in letters, personal contacts and field reviews.

In this correspondence, the project was described as revision of the allotment management plan, proposed grazing systems, and possible division of the Jones Corral C&H Allotment. The public was informed that the project would involve refining the grazing systems to insure continued improvement of the soil and vegetation resources.

Notification of the project also explained that the proposed project, at this preliminary stage, would be consistent with the Dixie National Forest L&RMP.

Public Issues, Management Concerns, and Opportunities

The Forest Service prepared an Initial Analysis and Scoping Paper for the project proposal and implemented a public scoping process to determine major issues and concerns associated with this project. An initial analysis and scoping paper (158 copies) was sent to private citizens, organizations, and local, State, and Federal agencies.

Approximately 31 individuals, groups, organizations, and agencies responded to the invitation to comment on the proposed project, or involve themselves in the analysis of the project. The Interdisciplinary Team assigned to this project reviewed the Dixie National Forest L&RMP and other available literature on the Jones Corral C&H Allotment Management Plan revision. Based upon the scoping process and after reviewing opportunities to improve management of the land resources, issues were identified that are relevant to this proposal and have been included in the analysis. Following are the issues identified, a brief description of the issues and evaluation criteria that will be used to measure how well each alternative addresses the issues in the Environmental Consequences Section, Chapter IV:

Unsatisfactory vegetation conditions exist within the analysis area.

There is a concern that unsatisfactory vegetation conditions exist. This is evident by the lack of desirable vegetation in the large grass/forb open parklands within the aspen types and the downward vegetation condition trends on the Mud Springs reseeding areas.

Alternatives addressing this issue will be analyzed using criteria which:

- a. Evaluate impacts of grazing on the open parklands within the aspen types.
- b. Evaluate impacts of grazing on the Mud Springs Division pinyon/juniper reseedings.

Elk and livestock competition for forage.

Some respondents stated elk are competing with livestock for forage, primarily in the open parklands in the higher elevation vegetation types. The concern is that elk are using this forage prior to, during, and after livestock use and this use could be detrimental to the vegetation as well as reducing the amount of forage available for livestock, resulting in reduced livestock numbers.

Alternatives addressing this issue will be analyzed using criteria which:

- a. Evaluate impacts that elk and cattle grazing has on the vegetation communities.
- b. Evaluate elk and cattle grazing as it relates to proper utilization of forage and the resulting carrying capacities for both elk and cattle.

Economic impacts of the proposed action.

There is a concern of the economic impacts on the grazing permittees and loss of revenues to Piute County if livestock numbers are reduced.

Alternatives addressing this issue will be analyzed using criteria which:

- a. Evaluate impacts on the livestock carrying capacity.
- b. Evaluate costs of new range improvements.
- c. Evaluate costs of maintaining range improvements.

Dixie National Forest L&RMP identifies lands for recreation, timber, and wildlife emphasis, not livestock grazing.

Most lands within the Jones Corral C&H Allotment are identified as 4B - Wildlife Habitat Management and 5A - Big Game Winter Range. Smaller acreages are identified as 2B - Rural and Roded Recreation Opportunities and 7A - Timber Management.

Alternatives addressing this issue will be analyzed using criteria which:

- a. Evaluate impacts that livestock grazing would have on recreational opportunities.
- b. Evaluate impacts that livestock grazing would have on wildlife habitat management.

This Environmental Assessment documents the analysis of present conditions, alternatives to address the major issues, and the environmental effects and consequences of implementing the alternatives. It also documents the analysis of an appropriate alternative that would be responsive to the purpose and need for this proposed action.

Documentation of the scoping and public involvement process is included in the project file available at the Powell Ranger District office. Other issues, concerns, and opportunities that were identified, but were not considered within the scope of the proposed action or were not considered significant issues are listed in Appendix E.

CHAPTER II. ALTERNATIVES

This chapter describes a range of alternatives, including the proposed action (Alternative 3) for the Jones Corral C&H Allotment on the Powell Ranger District, Dixie National Forest. These alternatives have been developed by an Interdisciplinary Team in response to issues identified during the scoping process (40 CFR Part 1501.7 Scoping).

This chapter is comprised of four parts: (a) alternatives considered and analyzed in detail, (b) alternatives considered but not analyzed in detail, (c) summary of alternatives, and (d) discussion of alternative grazing strategies.

A. ALTERNATIVES CONSIDERED IN DETAIL

Alternative 1 - (No Action)

Mud Springs Division. This alternative incorporates a three pasture deferred rotation grazing system as presently in existence. Elk numbers would remain at present levels and livestock use and season of use would be adjusted to meet proper use criteria (vegetation) established for this allotment.

The following table shows the planned grazing schedule:

Year	Cattle	North Reseeded Pasture	Jones Corral Enclosure	South Reseeded Pasture
1	300	6/1- 7/25	7/26-8/31	9/1-10/10
2	300	9/1-10/10	7/26-8/31	6/1- 7/25

Note: The dates are tentative and the cattle would be moved when proper use is reached.

Willow Springs Division. This alternative incorporates a four pasture rest rotation grazing system as presently in existence. Elk numbers would remain at present levels and livestock use and season of use would be adjusted to meet proper use criteria (vegetation) established for this allotment.

The following table shows the planned grazing schedule:

Year	Cattle	Lower Hoodle Willow Springs	Rocky Ford Mule Flat	Lower Forest Pine Creek	Upper Forest Pine Creek
1	127	6/1-7/31	8/1-10/10	Rest*	Rest*
2	127	Rest*	Rest*	6/1-7/31	8/1-10/10

The grazing dates are tentative and the cattle would be moved when proper use is reached.

*These pastures may be grazed the latter part of the grazing season if needed.

Under this grazing system the forage plants in the North Reseeding, South Reseeding, Lower Hoodle-Willow Spring, Rocky Ford-Mule Flat, Lower Forest-Pine Creek, and Upper Forest-Pine Creek units would be permitted to reach full development one out of two years. Plants in the Jones Corral Enclosure Unit would either reach the flowering stage or the early seed ripe stage before they are grazed.

Alternative 2 - (No Livestock Grazing)

The no grazing alternative of domestic livestock on the allotment would not meet the general goals and management area direction for livestock grazing in the Dixie National Forest L&RMP. However, it has been evaluated in the comparison of alternatives and in the Environmental Consequences, Chapter IV. This was done for comparison purposes only.

Alternative 3 - (Proposed Action)

The Jones Corral C&H Allotment would be divided into two allotments, named the Jones Corral C&H Allotment and Willow Springs C&H Allotment. These two allotments presently are divisions of the Jones Corral C&H Allotment.

Willow Springs C&H Allotment. This allotment would be grazed using a four pasture deferred-rotation grazing system. One-half mile of fenced would be reconstructed in the Pole Canyon area to control unauthorized cattle use on Table Mountain (sheep allotment).

The following table shows the planned grazing schedule:

<u>Year</u>	<u>Cattle</u>	<u>Lower Hoodle Willow Springs</u>	<u>Rocky Ford Mule Flat</u>	<u>Lower Forest Pine Creek</u>	<u>Upper Forest Pine Creek</u>
1	158	7/25-8/29	8/30-10/10	6/1-6/24	6/25-7/24
2	158	6/1-7/6	7/7-8/17	8/18-9/10	9/11-10/10

Jones Corral C&H Allotment. This allotment would be grazed using four pastures in a deferred-rotation grazing system. Two reseeded units would be grazed early summer. The cattle would then be moved to the Enclosure Unit to graze the sagebrush ridges until approximately August 15, at which time, the whole unit would be grazed until proper use is reached (50% forage utilization). After grazing the Enclosure Unit, the cattle would then graze the remaining reseeded unit.

The following improvements would be necessary to implement this alternative. The South Reseeded Unit would be divided by a new fence (1.1 miles). A fence would be constructed in the Enclosure Unit to hold the cattle on the sagebrush ridges (2 miles). The allotment boundary fence near Lost Creek would be extended 1 mile. Also a fence on the north boundary of the allotment near Rocky Ford would be constructed to help control unauthorized cattle use on the Forest.

The following table shows the planned grazing schedule:

<u>Year</u>	<u>Cattle</u>	<u>North Reseeded Pasture</u>	<u>Middle Reseeded Pasture</u>	<u>South Reseeded Pasture</u>	<u>Enclosure Pasture</u>
1	208	6/1-7/1	7/2-7/26	9/16-10/10	7/27-9/15
2	208	6/26-7/26	9/16-10/10	6/1-6/25	7/27-9/15
3	208	9/10-10/10	6/1-6/25	6/26-7/20	7/21-9/9

Additional fence construction, fence maintenance and water developments would be necessary to implement this alternative. A pipeline from a spring in Hoodle Creek would be piped approximately 7.8 miles to provide water for livestock and wildlife on both the Jones Corral and Willow Springs C&H Allotments. The spring development at Winnemucca Flat would be fenced to help keep livestock on the sagebrush ridges. Also a water development in Jones Corral Draw would assist with cattle distribution.

Alternative 4 - (Existing with Adjustments)

Willow Springs Division. This alternative incorporates a four pasture rest rotation grazing system with two units receiving rest each year. Livestock use would be adjusted in the Term Grazing Permit to meet proper use criteria established for this allotment.

The following table shows the planned grazing schedule:

<u>Year</u>	<u>Cattle</u>	<u>Lower Hoodle Willow Springs</u>	<u>Rocky Ford Mule Flat</u>	<u>Lower Forest Pine Creek</u>	<u>Upper Forest Pine Creek</u>
1	105	6/1-8/10	Rest	Rest	8/11-10/10
2	105	Rest	7/18-10/10	6/1-7/17	Rest

(Repeat Cycle)

Mud Springs Division. This alternative incorporates a three pasture deferred rotation grazing system as presently in existence. Elk numbers would remain at present levels and livestock use and season of use would be adjusted in the Term Grazing Permit to meet proper use criteria established for this allotment. No new improvements would be developed.

The following table shows the planned grazing schedule:

<u>Year</u>	<u>Cattle</u>	<u>North Reseeded Pasture</u>	<u>Jones Corral Enclosure</u>	<u>South Reseeded Pasture</u>
1	187	6/1-7/4	7/5-8/17	8/18-9/20
2	187	8/30-9/20	7/15-8/29	6/1-7/14

(Repeat Cycle)

Alternative 5 (Wildlife)

Willow Springs Division. This alternative would have the same four pasture rest rotation grazing system as presently in existence. Cattle numbers would be adjusted (105) to meet proper use criteria established for this allotment. Under this alternative, two of the four pastures would be rested each year. Wildlife numbers would be increased to utilize forage available in the rested units.

Mud Springs Division. Under this alternative, the Enclosure Unit would be closed to livestock use. This would eliminate livestock/wildlife conflicts within this unit. It would also allow the parkland vegetation within the pasture to improve in vigor and composition. Wildlife numbers, primarily elk, could increase within the pasture, but not to exceed proper use criteria established for this pasture. The reseeded units would be grazed during early summer using a rotation grazing system.

The following table shows the planned grazing schedule:

<u>Year</u>	<u>Cattle</u>	<u>North Reseeded Pasture</u>	<u>South Reseeded Pasture</u>
1	300	6/1-6/22	6/23-7/26
2	300	7/5-7/26	6/1-7/4

B. ALTERNATIVES CONSIDERED, BUT NOT ANALYZED IN DETAIL

1. Other alternatives that were designed with deferred rotation grazing systems were eliminated from detailed study because it was felt that they were similar to the proposed action and there were not any significant differences.
2. Alternatives that were designed with rest rotation grazing systems for purposes of improving vegetation conditions were also eliminated from detailed study. It was felt that areas that could benefit from rest rotation grazing system would continue to be used during the prescribed rest periods by wildlife. Also, see the Discussion of Alternatives Grazing Strategies in Section D.
3. Alternatives to reduce wildlife in favor of livestock were eliminated from detail study because these alternatives would not be in compliance with the Dixie National Forest L&RMP.
4. Alternatives to combine the two divisions into one grazing unit or take parts of one division and add them to another division were eliminated from detailed study for several reasons including additional costs of improvements, trailing of livestock to and from the National Forest, and the small capacity of some pastures would make management of livestock more difficult. In comparing these alternatives with alternatives selected for analysis, few or no additional benefits would be realized in meeting desired future conditions.

5. Alternatives to combine an adjoining allotment or portions of another allotment were not considered. They are outside the scope of this analysis.
6. Alternatives to graze sheep and/or graze parklands early season do not meet current permittees management options or effectively utilize the reseeded units.

C. SUMMARY OF ALTERNATIVES

Five alternatives were analyzed in detail. Alternative 1 (No Action) does not allow for changes in livestock numbers in the Term Permit based upon the need to meet proper utilization standards. There is an over obligation of permitted livestock on this allotment and grazing use needs to be adjusted.

Alternative 2 (No Livestock Grazing) would eliminate livestock grazing on the allotment.

Alternative 3 (Proposed Action) divides the Jones Corral C&H Allotment into two allotments. Both allotments would be grazed using deferred rotation grazing systems.

Alternative 4 (Existing with Adjustments) Willow Springs Division would be grazed using a four pasture rest rotation system. The Mud Springs Division would have no new range improvements and be grazed as in the no action alternative. Numbers and season of use would be adjusted.

Alternative 5 (Wildlife) reduces the conflicts between livestock and wildlife grazing in favor of wildlife and still promotes the improvement of vegetation conditions.

Alternatives 3 and 4 are consistent with the Dixie National Forest L&RMP Management Direction and with Management Area descriptions found in Appendix G of this document. Each of these alternatives could be implemented without amending the Forest Plan.

The following activities are common to Alternatives 3, 4 and 5 with livestock grazing:

No livestock would be allowed on National Forest System lands until proper range readiness is reached, annually.

Herding and salting practices would be followed to achieve proper distribution of livestock.

Numbers of livestock and season of use would be adjusted annually as determined necessary by the District Ranger. During years of drought, these adjustments are usually necessary.

All range improvements would be maintained to the standard which they were constructed. Reconstruction of improvements would be completed as determined necessary by the District Ranger and as funds are

available. These responsibilities and assignments would be identified in the grazing permittees term permit.

When livestock are moved to the next unit, all livestock would be moved in a timely manner. Stray livestock would not be allowed to remain in the previously grazed unit.

Grazing these units in a deferred or rest rotation grazing system may require that livestock be trailed across units not scheduled for grazing at that time. It would be necessary that livestock be moved through the units promptly and not left in the unscheduled units.

Hauling of water for livestock may be necessary to achieve proper distribution of livestock.

Historic and/or cultural resource clearances will be completed prior to construction of any new range improvement projects.

There will be 120 acres of pinyon/juniper reseeded lands maintained by the Permittees each year for the next 10 years to maintain their productivity for forage.

No burning of sagebrush is proposed. Burning may be detrimental to the wildlife species (deer and sagegrouse). If burning is proposed in the future, it will be analyzed under a separate NEPA document.

The draft guidelines for Goshawk management, for Region 4 will be followed. Forage utilization will not exceed 40% in the aspen types at any one location and will not exceed 20% average forage utilization in openings less than one acre in size within the aspen stands.

COMPARISON OF EFFECTS OF THE ALTERNATIVES

Table II-1 summarizes the effects of implementing each alternative by issue.

Table II-1. COMPARISON OF EFFECTS

Relevant Issues	Alternative 1 No Action	Alternative 2 No Livestock	Alternative 3 Proposed Action	Alternative 4 Adjustments	Alternative 5 Wildlife
<p><u>Issue 1: Unsatisfactory vegetation conditions exists within the analysis area.</u></p> <p>a. Evaluate impacts of grazing on the open parklands within the aspen types.</p>	<p>No change from present situation, vegetation conditions would remain as they have for many years.</p> <p>P/J</p>	<p>Most potential for improvement in both the short term and long term in grass production.</p>	<p>More improvement than Alt. 1 & 4. Alt's. 3 and 5 provide the most improvement in the long term, plus improved livestock distribution.</p>	<p>More improvement than Alt. 1 but less than Alt's. 2, 3, & 5.</p>	<p>Alt's. 2 and 5 provide for the most improvement. In the long term there would be a loss of the forb composition.</p>
<p>b. Evaluate impacts of grazing on the Mud Springs Division pinyon/juniper reseedings.</p>	<p>Will continue to invade naturally, with or without grazing. P/J will need to be controlled by man.</p>	<p>Less improvement than Alt. 1.</p>	<p>Most improvement. Grazing continues & maintenance of P/J reseeding would be required</p>	<p>Less improvement than Alt. 3.</p>	<p>Same as Alt. 4.</p>
<p><u>Issue 2: Elk and live-stock competition for forage.</u></p> <p>a. Evaluate impacts that elk and cattle grazing has on the vegetation communities</p>	<p>No change, use is not allowing improvement of vegetation on the parklands and some other areas.</p>	<p>Vegetation change and trend would be to more grass composition.</p>	<p>More grass in the parklands, other areas remains about the same.</p>	<p>Current trends would continue.</p>	<p>Parklands trends would be the same as Alt. 2. Other areas trend would remain the same.</p>

Relevant Issues	Alternative 1 No Action	Alternative 2 No Livestock	Alternative 3 Proposed Action	Alternative 4 Adjustments	Alternative 5 Wildlife
b. Evaluate elk and cattle grazing as it relates to proper utilization of forage and the resulting carrying capacities for both elk and cattle.	No change. Exceeds proper use.	Within proper use. No competition. Wildlife numbers would need to be controlled.	Within proper use. More competition than Alt's 2 & 5 but less than Alt's 1 & 4.	Some areas could still exceed proper use, less competition than Alt. 1 but more than Alt. 3.	Within proper use, competition would continue in the livestock grazed units.
<u>Issue 3</u> : Economic impacts of the proposed action.					
a. Evaluate impacts on the livestock carrying capacity.	No change. 1850 AM's.	Loss of 1850 AM's (100%)	1584 AM's, Loss of 266 AM's (14%)	1141 AM's, Loss of 709 AM's. (38%)	1007 AM's Loss of 843 AM's. (46%)
b. Evaluate costs of new improvements.	No new improvements.	Forest Service - \$13,600.	Most costly. Forest Service - \$54,100; Permittee costs \$20,200.	Forest Service - \$12,200; Permittee costs \$3,900.	Forest Service - \$44,500; Permittee costs \$14,600.
c. Evaluate costs of maintaining range improvements.	No new improvement would continue as it does presently	Less costly. There would be less fence to maintain.	Most costly.	More costly than Alt's 1 & 2	More costly than Alt's 1, 2, & 4.
<u>Issues 4</u> : Dixie National Forest L&RMP identifies lands for recreation, timber and wildlife emphasis, not livestock grazing.					

<p>a. Evaluate impacts that livestock grazing would have on recreation opportunities</p>	<p>The aesthetic qualities would continue to be impacted. Conflicts with fences & livestock by users would continue.</p>	<p>Most beneficially to recreation use. Fences would be removed and vegetation conditions improved.</p>	<p>More impacts than Alt's 2, 4, & 5, with addition of the new fences.</p>	<p>Less impacts than Alt's 1 & 3. There would be no new fences.</p>	<p>Less impacts than Alt's 1, 3, & 4, with an improvement in vegetation conditions.</p>
<p>b. Evaluate impacts that livestock grazing would have on wildlife habitat management.</p>	<p>Current impacts would continue, livestock/wildlife competing for forage.</p>	<p>No competition between elk & cattle for forage long term could be detrimental to forb composition.</p>	<p>Less impacts to wildlife habitat than Alt's 1 & 4.</p>	<p>Less impacts to habitat than Alt. 1, more than Alt's 2, 3, & 5.</p>	<p>Less impacts to wildlife habitat than Alt's 1, 3, & 4.</p>

D. DISCUSSION OF ALTERNATIVE GRAZING STRATEGIES

Different grazing strategies were considered by the Interdisciplinary Team to assist in achieving the desired future condition as described in Chapter I.

The effectiveness of any grazing strategy in accomplishing the stated desired future condition depends on how the grazing variables of severity, frequency and timing are manipulated. Grazing ungulates tend to select for the current years growth for the necessary protein, fiber, and energy content to meet biological requirements. Cattle tend to remove the majority of the current years growth from a plant or portion of a plant that is bitten as long as it is accessible and not mixed with other non-palatable material. Attempts to control the severity of grazing (utilization levels) can only be accomplished in terms of average utilization for the forage plants in the given area. This can be monitored for all forage in the area or for selected key species. Using techniques such as herding, salting, water development, and fencing can serve to distribute grazing more evenly over a given area. This changes the distribution of grazing but not the average utilization levels for the total area.

Frequency of grazing is important in managing ungulate grazing. Once a plant has had the current years growth removed, it utilizes a portion of the energy stored in its roots to initiate regrowth. Once sufficient leaf volume is produced the plant can complete regrowth and replace roots with energy available throughout photosynthesis. If the plant is grazed again before regrowth and recovery is complete, it must once again draw on root reserves to initiate regrowth. If this happens several times, a significant reduction in plant vigor can result. If this scenario continues over time, plant mortality eventually occurs. This can lead to a shift in the plant community, with the most palatable species being reduced or eliminated, resulting in less biological diversity which is contrary to the desired future condition. Effects from the frequency of grazing can be controlled through the time that the plants, in a given area, are exposed to grazing and by allowing for adequate recovery periods between grazing periods.

Frequency of grazing is particularly important in areas where plant regrowth is relatively rapid, such as riparian areas. This is because the faster a plant is growing the greater the number of times it attempts to regrow and is exposed to regrazing during a set period. As previously mentioned, this type of repetitious grazing results in reduced plant vigor and eventual mortality. When forage plants along a streambank are low in vigor with weaker smaller root systems, they are less effective in maintain bank stability.

The third grazing variable, timing is very important, it also requires attention in order to meet the desired future condition. Different plants initiate growth and complete the various stages of growth at different times during the season depending largely on the species of plant and the site it is growing on. The effect that grazing has on a plant is influenced by the growth stage that it is in at the time that it is grazed. Heavy grazing during culm elongation year after year will lead to

a decrease in production or to an increase in undesirable species. To allow for this, grazing the same pasture at the same time of the year every year should be avoided.

These principles of grazing management were used to structure the various alternatives for this allotment. The Interdisciplinary Team chose to emphasize deferred systems over rest rotation because of the greater control that they offer in managing grazing frequency. It is believed that the time provided between grazing use periods in each pasture are adequate to allow for regrowth and recovery. Monitoring will be needed to evaluate this assumption and adjustments in management made if the desired future conditions are not being met.

The desired future condition includes an increase in grass composition in the open parkland areas where the potential exists. In order for existing vegetation (grasses) to expand, an improvement in vigor needs to occur. However, this should not occur to the exclusion of the existing forbs which are very important for wildlife within the area. Replanting is another option. Once reproduction occurs, a grazing strategy is needed that allows young plants to become established. The principles discussed above apply to young plants as well as mature plants. Young plants are more susceptible to mortality from severe and frequent grazing than are mature established plants. Young plants seem to be more palatable for grazing and thus occur heavier use by grazing.

Another question that remains is the extent to which elk are affecting vegetation. Elk are increasing the grazing frequency on vegetation, especially in the parklands. The use by elk reduces the effectiveness of planned recovery periods. Additional monitoring information is needed to address this subject.

The desired future condition for the reseeded units (crested wheatgrass) is to maintain healthy stands of grass. Grazing using a deferred rotation system will maintain the crested wheatgrass seeding if utilization standards are met and the reinvasion of pinyon/juniper trees are removed.

With this discussion in mind, the preferred alternative proposed calls for the use of a deferred rotation grazing system. This system calls for using all of the pastures each season for a specified period of time, depending upon use levels.

CHAPTER III. AFFECTED ENVIRONMENT

The Jones Corral C&H Allotment includes Management Areas (MA's) 2B, 4B, 5A, and 7A. Each of these MA's has specific management prescriptions relating to range resources, recreation, soil, water, timber, visual, wildlife and fish management. Detailed management prescriptions are displayed in the 1986 Dixie National Forest L&RMP, Chapter IV. This section describes the environmental components that would be affected by the alternatives if they were implemented. Only those environmental components that are relevant to the issues, purpose and need, and the decision to be made will be addressed.

A. LIVESTOCK GRAZING

Livestock grazing has occurred on the Powell Ranger District since the establishment of the local communities in 1866. In the early days of the Forest, sheep were the primary users of the range with beef cattle, dairy cattle, and horses in secondary rolls. Today, this role in grazing class of livestock has changed. The primary class of livestock is beef cattle.

This allotment is presently grazed by cattle. A total of six permittees graze livestock on the allotment. These six permittees have Term Grazing Permits for a total of 427 cattle. The Term Grazing Permits authorize a grazing season of 6/1 to 10/10 for a total of 1,850 animal months. There is a history of past unauthorized livestock use on the allotment.

The Allotment Management Plan for the Jones Corral C&H Allotment was approved in 1980. The allotment is divided into two divisions, the Mud Springs Division and the Willow Springs Division. The following is how these divisions are grazed:

Mud Springs Division. One of the reseeded units is used early summer. Cattle are to remain in this reseeded unit until about July 27. After that time, they graze the Enclosure Unit. After they leave the Enclosure Unit, they finish the grazing season in the other reseeded unit. The use of the reseeded units are rotated each year. Cattle using the parklands prior to the authorized date has been a problem in the past and probably contributes to the less than satisfactory vegetation conditions of the parklands.

Willow Springs Division. This division is grazed using a four pasture rest rotation grazing system. Two units are rested each year.

B. RECREATION AND VISUAL RESOURCES

The Jones Corral C&H Allotment possesses unique scenery. The deep canyons with mixed conifer mountain sides intermingled with large stands of aspen and open parklands provide a beautiful view to the Forest visitors. This locale is highly visible to travelers using Forest Road No's. 125 and 126. Mount Dutton, which lies on the southwest side of the allotment is at an elevation of 11,041 feet. From this mountain top, a visitor can see into the surrounding valleys and adjoining mountain ranges. There are several trails that access the Jones Corral Area from which a visitor can enjoy the beauties of the area. Throughout the summer and especially late into the fall hunting season, dispersed camping is very popular. Besides

hunting, the area is used by those seeking opportunities to view wildlife. As the public continues to become knowledgeable about the trail system and as more are developed and improved, use will increase.

Most of the allotment lies within the Casto Bluff Roadless Area, No. 07028. The roadless area is 93,440 acres in size and is basically undeveloped except for a few low standard roads in the area. In addition, a smaller acreage of the allotment lies within the Deep Creek Roadless Area, No. 07029. Except for a few low standard roads, this area is basically undeveloped.

C. SOIL AND WATER

The analysis area comprises portions of the East Fork of the Sevier River and the Sevier River drainages. There are seven main drainages that comprises the analysis area and they are tributaries to the East Fork of the Sevier River. These are Rocky Ford, Pole Canyon, Hoodle Creek, Willow Creek, Forest Creek, Pine Creek, and Deep Creek. In the Sevier River drainage the primary drainages include Lost Creek, Mud Springs and Burnt Hollow.

Two of these drainages support a fisheries, Pole Canyon and Deep Creek. Deep Creek has Bonneville Cutthroat trout. The other drainages are intermittent streams. All of these drainages occur in steep rocky terrain. Very little head cutting occurs due to the nature of the streams and geology of the area.

D. FISHERIES

The stream environments affected by land management activities in this area include Forest Creek, Pine Creek, Rocky Ford Creek, Lost Creek, Pole Canyon, and Deep Creek.

Forest and Pine Creeks are classified by the Utah Division of Wildlife Resources (UDWR) as Class 4 streams. Class 4 streams are typically poor in quality with limited fisheries values. According to UDWR, fishing should be considered a secondary use. Low flows above the Forest boundary during late summer minimizes the potential fishery value in both of these streams. However, a 1970 UDWR stream survey documented the occurrence of brown trout in lower Forest Creek on BLM lands.

Rocky Ford Creek has not been surveyed or classified by UDWR. If it were classified, it would probably also be designated as a Class 4 stream. Most of this stream dries up by late summer. There is likely only a short section of stream which may be perennial. There is good fish habitat structure when sufficient water is present in the stream channel.

The Utah Division of Wildlife Resource (UDWR) has classified, Pole Canyon and Deep Creek as Class 3 trout streams. Class 3 streams are important trout streams which comprise approximately half of the total stream fishery habitat in Utah. Fish species found in these streams are generally cutthroat trout or cutthroat trout hybrids. Deep Creek contains an historic population of native cutthroat trout.

Pole Canyon is a healthy stream ecosystem. The stream is 2-3 feet wide with stable streambanks. The riparian area is in excellent condition with little or no grazing impacts. Riparian vegetation consists of cottonwood, willow, river birch, dogwood, and grasses. Fish habitat is good to excellent with numerous trout. Fish sampling documented a population of cutthroat rainbow trout hybrids. The trout were very colorful with crimson bellies, bright orange opercles, and bright orange "cutthroat" slash marks. They were very similar in appearance to Colorado River cutthroat trout. Because it is a healthy stream ecosystem, Pole Canyon would be an excellent stream to replicate the population of Bonneville Cutthroat trout in Deep Creek.

Deep Creek flows from an elevation of 10,000 feet down to its confluence with the East Fork of the Sevier River. The stream experiences extreme low flows in late summer and winter with substantial portions of the stream drying up. During the 1989 drought, trout were restricted to 1 to 2 miles of stream below the confluence of the North and South Forks of Deep Creek. A pure strain Bonneville Cutthroat trout were identified in this stream in 1981 by Brigham Young University. The current population status is unknown. Utah Division of Wildlife Resources data from 1980 indicated a population level of 286 trout per mile of stream.

Deep Creek is a fairly healthy stream ecosystem. Current grazing appears light to moderate. However, there is evidence of past overgrazing. The stream channel is downcut with vertical banks in the section upstream from the Forest boundary. These banks are stabilizing near the water edge. Fish habitat is rated as fair to good and with numerous fish feeding and spawning at the tail of pools. Fine sediment in the spawning gravels is estimated to be 25-30 percent. If streambank stabilization continues, the percent fine sediment in the spawning gravels should show a downward trend over time.

E. WILDLIFE AND THREATENED, ENDANGERED AND SENSITIVE SPECIES

More than 350 species of wildlife and fish inhabit the Dixie National Forest for all or a portion of their life cycle. Consumptive and nonconsumptive uses of many of these species are an important part of recreation on this analysis area.

Elk herds on National Forest System lands within the Mount Dutton area were introduced in 1935. One objective of the Mount Dutton Elk Management Plan is to maintain summer elk numbers at approximately 550 on these National Forest System lands. The plan also calls for summer elk numbers north of Forest Creek not to exceed 150 elk.

Deer hunting within the analysis area has high recreational values. The deer herds have declined in recent years.

A management indicator species is an animal which, by its presence in a certain location or situation, is believed to indicate the habitat conditions for many other species. By monitoring their populations and habitat relationships, we can see the effects of management activities on all the fish and wildlife of the Forest (refer to Forest Plan, FEIS,

pg. III-13). The following are the primary indicator species within the analysis area:

<u>Species</u>	<u>Vegetation Types</u>
Mule Deer	Grass-forb, sagebrush, mountain brush, pinyon-juniper, sapling-mature aspen, sapling-mature conifer.
Rocky Mountain Elk	Grass-forb, sapling-mature aspen, sapling-old growth conifer.
Goshawk	Riparian tree, mature aspen, mature-old growth conifer.
Common Flicker	Mature aspen, mature conifer.
Yellowbreasted Chat	Riparian shrub-tree.

There are two endangered species and three threatened species, which could occupy areas on the analysis area. The bald eagle (Haliaeetus leucocephalus) and peregrine falcon (Falco peregrinus) are federally classified as endangered, under the Endangered Species Act of 1973 (ESA) and may be present within this analysis area. The Utah prairie dog (Cynomys parvidens), Ute ladies-tresses (Spiranthes diluvialis) and Mexican spotted owl (Strix occidentali lucida) are listed as threatened and may be present within the analysis area.

ENDANGERED SPECIES

Bald Eagle. Habitat for the bald eagle is managed within the guidelines established in the Dixie National Forest L&RMP. Bald eagles are a winter migrant resident and have been seen roosting along the Sevier River further to the west.

Peregrine Falcon. Peregrine falcons are known to nest in the cliffs of Bryce Canyon National Park, which is to the south of the allotment. Peregrines could be nesting and foraging on areas of this allotment, however, none have been located.

THREATENED SPECIES

Utah Prairie Dog. Utah prairie dogs could occupy habitats on the allotment, but presently none have been found.

Ute Ladies'-Tresses. Ute ladies'-tresses could occupy habitats on the allotment, but presently none have been found.

Mexican Spotted Owl. Spotted owl surveys have been conducted on portions of the allotment, to date none have been found.

SENSITIVE SPECIES

Sensitive species have been determined by the Regional Forester (FSM 2670.5) and are those species for which population viability is a concern. Region 4 has an official listing of sensitive vertebrate and plant species by National Forest. Eight sensitive animal species may exist in areas being considered in the analysis area and included the following:

Spotted Bat	<u>Euderma maculatum</u>
Townsend's Big-eared Bat	<u>Plecotus townsendii</u>
Willow Flycatcher	<u>Empidonax traillii extimus</u>
Flammulated Owl	<u>Otus flammeolus</u>
Three-toed Woodpecker	<u>Picoides tridactylus</u>
Northern Goshawk	<u>Accipiter gentilis</u>
Colorado Cutthroat Trout	<u>Oncorhynchus clarki pleuriticus</u>
Bonneville Cutthroat Trout	<u>Oncorhynchus clarki utah</u>

Two sensitive plant species could be found within the analysis area and include the following:

Rydberg Milkvetch	<u>Astrogalus perianus</u>
Creeping Draba	<u>Draba sobolifera</u>

A Biological Evaluation of the potential affects of the proposed action has been completed. This evaluation has concluded that implementation of any of the alternatives evaluated in this EA is not likely to adversely affect the recovery of the endangered bald eagle, peregrine falcon, threatened Utah prairie dog, Ute ladies'-tresses, and Mexican spotted owl, or adversely impact the sensitive species resident on the analysis area. (See Project File)

Deer numbers have declined within the analysis area over the past few years. This decline might be contributed to the recent drought and/or increase in hunting pressures. Elk numbers are also reported by the Division of Wildlife Resources (DWR) to be down some. The elk use the parklands, primarily in the late spring and early summer. The Forest Service and DWR are cooperating in on-going utilization surveys to determine possible elk/cattle conflicts. At this time it appears that the effects of elk use on grass production is low.

Pine hens and sage grouse are present on the analysis area. The past burning of sagebrush may have been detrimental to the sage grouse populations. They depend primarily on sagebrush for food from October through May and for cover throughout the year.

F. VEGETATION

There are approximately 15,947 acres suitable for livestock grazing on the allotment. According to the 1960 and 1967 Range Analysis, the following vegetation types are found within the allotment: Conifer, Aspen, Sagebrush, Dry Meadow, Browse, Pinyon-juniper, Wet Meadow, and Crested Wheat reseeded. Conifer and pinyon-juniper types are mostly classified as unsuitable for livestock grazing. The conifer types at times can be

considered transitory range. Aspen types can produce a lot of forage but do not receive much use by livestock except near water locations. The dry meadows (parklands) have received heavy use each year in the Enclosure Unit. Cattle have traditionally moved up to these parklands early in the season. Due to poor fence maintenance and control of cattle, these parklands are grazed prior to the scheduled date. Wildlife also have an impact on these lands with early season grazing. The vigor of the grasses should be higher, also an increase in grass composition should be encouraged. Cover relation comparisons between grasses and forbs show that there are approximately 67% forbs and 33% grasses in the parklands. These ratios should be approximately 50% grasses and 50% forbs.

There have been approximately 1,613 acres of sagebrush burned to improve grass production on the allotment. This has been effective in most areas. In some areas the grasses have not grown as well as in other areas. However, one concern is that through this burning of sagebrush there has been a loss of bitterbrush plants.

Grazing by livestock and wildlife is having an effect on the reproduction of aspen. This is evident when studying the Woodchuck and Winnemucca grazing enclosures.

Burning of mix-conifer has proven to be effective in improving wildlife habitat for elk and other wildlife species. This burning creates openings in the timber stands, encourages aspen sprouting and increases available forage. A small amount of burning of conifer has taken place on the allotment. There are additional acres prescribed for burning in a burn plan for the area.

In the early 1970's, approximately 2,700 acres of pinyon-juniper were chained and then the area was reseeded with bitterbrush and crested wheatgrass. Most of the reseeded area was successful with good stands of grass. Today, production of crested wheatgrass varies from 460 pounds per acre (dry weight) to 130 pounds per acre on those areas that are being reinvaded by pinyon-juniper. There are approximately 1,000 acres of the reseeded area in unsatisfactory condition due to the reinvasion of pinyon-juniper trees. There are approximately 1,000 additional acres that are in satisfactory condition that will also need control of pinyon-juniper tree reinvasion.

Unit examination and parker 3-step cluster data indicate that the overall trend for the allotment is in a stable condition except for those areas of pinyon-juniper reinvasion and areas of heavy livestock utilization. These heavy use areas are primarily the open parklands adjacent to the aspen stands and vegetation conditions are not within the Forest Plan Standards and Guidelines. There are approximately 365 acres in less than satisfactory condition, due to heavy use and vegetation composition dominated by forbs (primarily dandelion, clover and yarrow).

CHAPTER IV. ENVIRONMENTAL CONSEQUENCES

This section is the analytical basis for the comparison of the alternatives. It describes the expected environmental consequences of each alternative on the relevant issues. The resources are described in Chapter III, the Affected Environment, and are directly linked to the issues listed in Chapter I, Purpose and Need. As noted in Chapter I, the analysis of the environmental consequences is assessed by a set of evaluation criteria that were developed for each issue area. For easy reference those criteria are repeated at the beginning of each issue area.

ISSUE 1, UNSATISFACTORY VEGETATION CONDITIONS EXIST WITHIN THE ANALYSIS AREA

The relevant evaluation criteria are:

- A. Evaluate impacts of grazing on the open parklands within the aspen type.
- B. Evaluate impacts of grazing on the Mud Springs Division pinyon/juniper reseedings.

Alternative 1 - No Action

Direct and Indirect Effects

- A. Under the existing management of the parklands there has been a very slow improvement in the condition of the parklands. They were reseeded in the 1940's with smooth brome grass. This grass is the dominate grass for these sites. There are two to one more forbs than grass occupying these sites. Forage utilization each year exceeds the allowable use of 50% for these parklands. This heavy use by cattle has contributed to the change in grasses to forbs in these parklands.
- B. There has been and will continue to be a loss of forage production in the reseeded units due to the reinvasion of pinyon-juniper trees. If this reinvasion is not maintained it will further reduce the capability of these lands to produce forage for grazing.

Alternative 2 - No Livestock Grazing

Direct and Indirect Effects

- A. If livestock were removed from the parklands, vegetation would first improve in vigor and density. The composition would return to one dominated by grasses. This would be aided by continuation of grazing by wildlife, whose diets are made up of more forbs than grasses. Over a period of time there would be less forage (forbs) available for wildlife (deer, pine hens and sage grouse).
- B. Removing livestock from the reseeded areas may be detrimental to the health of the crested wheatgrass that dominates these sites. There could be a small increase in native grasses within the area. However, in the long term, these reseeded areas will return to sites dominated by pinyon-juniper with little available forage for livestock or wildlife.

Alternative 3 - Proposed Action

Direct and Indirect Effects

- A. This alternative should allow the vegetation in the parklands to improve in vigor and density. The composition would improve toward a site with more grasses. There would be some loss of forbs in the composition, but with continued livestock grazing, forbs would still be a major component of the parkland sites. Forage (grasses) available for livestock would improve.
- B. Under this alternative the productivity of the reseeded units for forage production would be improved. The reinvasion of pinyon-juniper trees would be controlled allowing the grasses and forbs to improve in density and vigor. The division fence provides more opportunity to utilize the forage when it is more palatable.

Alternative 4 - Adjustments

Direct and Indirect Effects

- A. There would be an overall reduction in livestock use within the grazing units, but it is felt the reduced use of the parklands would be minimal. These areas are highly favored by livestock, so without fencing or water developments to hold livestock away from the parklands, these areas would remain an area of livestock concentration. Little improvement in vegetation would be noticed.
- B. Reducing stocking on the reseeded units would maintain the existing crested wheatgrass plants in a healthy condition. However, without maintenance of the reinvasion of pinyon-juniper there would continue to be a loss in total available forage for grazing. Also, there would not be an opportunity to balance the grazing capacities within the units and improve the timing of use on the crested wheatgrass reseedings.

Alternative 5 - Wildlife

Direct and Indirect Effects

- A. The effects on the parklands would be the same as discussed for Alternative #2, No Livestock.
- B. The effects on the reseeded units would be the same as discussed for Alternative #3, Adjustments.

Cumulative Effects

The scope of the cumulative effects analysis (CEA) is the area north of Cottonwood Creek and Smith Canyon, and is bounded by Highway 89 on the west, Kingston Canyon on the north and Black Canyon on the east. The separate effects of past, present and future project activities within this CEA do result in cumulative effects to the vegetation of the area. Activities which may contribute towards these effects include livestock grazing, wildlife grazing, recreation uses, roads, and timber harvest.

A. Cumulative Effects Related to Livestock Grazing and the Implementation of Improved Livestock Management

During the early years of livestock grazing on this allotment, livestock rotation and distribution was not a critical concern. As a result, animals were allowed in most cases, to linger within areas for the entire growing season resulting in adverse effects to soil, water and vegetation. Because palatable forage plants were repeatedly grazed throughout the growing period each year, desired vegetation declined. Lack of intensive livestock management contributed heavily to degraded range conditions.

Later adjustments were made to begin more intensive livestock management through fencing of pastures and rotation of livestock grazing. More emphasis was placed on proper distribution of cattle. This began the recovery process for many of the habitats within the analysis area.

Since the initiation of more intensified livestock management the allotment has been managed under various rotational grazing systems. Habitat conditions have improved in some areas. However, this is not true in all cases. Recovery has been slow in some areas, primarily in the parklands.

Implementation of any of the action alternatives, which reduces the duration of grazing and intensity of use in the parklands, will further reduce negative effects. Also, any alternative that provides for maintenance of pinyon-juniper in reseeded units will have a positive effect on available forage.

B. Cumulative Effects Related to Roads and Recreational Activities

Accelerated runoff from roads has the potential for contributing to increased sedimentation of streams and to instability of streambanks. These effects are greatly reduced following a timber sale due in part to mitigation measures such as closure of unnecessary roads, constructing water bars and grass seeding. However, in some instances these mitigation measures have been reduced in their effectiveness as a result of heavy recreational traffic on primitive roads. Heavy traffic over primitive roads often breaks down water bars and reduces the vegetation which in many cases serves as the only surfacing on the road.

Some cases of off road vehicle use and even the creation of new "two track" roads have been observed. This type of incident can be reduced through active educational and law enforcement programs. This will not eliminate the problem however.

Despite an ongoing program to close roads it can be expected that some unauthorized use of closed roads will continue primarily from recreational traffic.

The heavy grazing of the parklands does effect aesthetic values of this area. This analysis area is used by many for sightseeing besides the hunting opportunities.

C. Cumulative Effects Related to Wildlife

This analysis area has high wildlife values. Elk use has been high in the Jones Corral area. The parklands are used by elk in the early spring following the melting of the snow. Studies show that wildlife are only lightly using the grass species in the parklands. The Jones Corral area has been known for large numbers of deer. Presently these numbers are down. The parklands have a high percentage of forbs in the vegetation composition. These forbs are important for deer in the area. Sage grouse are another species of wildlife that utilize the forbs.

Grazing of livestock and wildlife is having an effect on the production of aspen in the area. There is also heavy browsing on bitterbrush. These observations are evident when studying the Woodchuck Enclosure.

There is a limited amount of competition between wildlife and livestock on the vegetation in the reseeded units.

There have been over 1,600 acres of sagebrush burned in the Jones Corral area to increase forage production for elk and cattle use. This has resulted in a loss of bitterbrush and habitat for sage grouse.

Grazing use in Deep Creek and Pole Canyon is light. These streams are considered to be in a healthy condition.

D. Cumulative Effects Related to Timber

Timber harvest activities have the potential to affect plant communities by increasing overland water flow and increasing the amount of sedimentation reaching a creek and being transported downstream. Reduced tree canopies may allow additional precipitation to reach the ground, and bare soil exposed by timber sale activities may be susceptible to being moved down slope. Increased peak flows and more frequent runoff events can contribute to streambank instability and erosion.

Adverse influences resulting from timber sales are largely negated by close attention paid to environmental issues during the planning phases of a timber sale, a high level of administrative control during the timber sale activities and mitigation of negative effects after the sale by implementing measures such as water barring and seeding of skid trails and seeding of highly erodible sites which have been disturbed.

Roads associated with timber harvest activities also can contribute to soil movement, higher stream flows and increased sediments within a stream. Precipitation falling above a road and within the roadbed can concentrate water on the compacted road surface. This water is unable to infiltrate into the soil and therefore flows at an accelerated rate down the roadway. This flow can become channelized and the high velocity can create gullies within the road and also between the point at which the water leaves the roadbed to where it enters a stream. These effects have been reduced by measures including closing of unnecessary roads, frequent water bars which divert water off a road and grass seeding once a road has been closed.

The reduced tree canopy and seeding of disturbed sites, roads, and skid trails following timber harvests have resulted in additional forage being produced. Domestic grasses within the seeded areas have attracted both livestock and wildlife, i.e. elk, and reduces the amount of grazing on suitable livestock range and can contribute to the recovery of degraded rangelands.

ISSUE 2, ELK AND LIVESTOCK COMPETITION FOR FORAGE

The relevant evaluation criteria area:

- A. Evaluate impacts that elk and cattle grazing has on the vegetation communities.
- B. Evaluate elk and cattle grazing as it relates to proper utilization of forage and the resulting carrying capacities for both elk and cattle.

Alternative 1 - No Action

Direct and Indirect Effects

- A. Vegetation conditions are improving in the analysis area. This improvement is at a slow rate. However, these parklands are not responding as expected. If livestock and elk numbers are maintained with no change in management, then the parkland vegetation community can be expected to remain unchanged.
- B. Elk do compete with livestock for available forage on suitable livestock range. The numbers of elk or livestock have an affect on the other. At the present time, with current livestock and elk numbers, elk and livestock use is considered to be over obligated for the parklands.

Alternative 2 - No Livestock Grazing

Direct and Indirect Effects

- A. There would be no use by livestock. There would be no immediate changes in the vegetation communities except the parklands would show an increase in vigor and grass densities. In the parklands, as well as other areas, the vegetation would change towards more grass dominating the sites.
- B. Elk numbers could increase within the area if there is not some other limiting factor such as winter range.

Alternative 3 - Proposed Action

Direct and Indirect Effects

- A. This alternative is expected to allow the vegetation communities to continue to improve. Livestock use in the parklands would be controlled, reducing the amount of forage utilization until after grasses mature. A higher percentage of grass in the composition would be the result.

- B. Forage utilization by cattle would be reduced in the Enclosure Unit and increased within grazing capacities on the Willow Springs C&H Allotment.

Alternative 4 - Adjustments

Direct and Indirect Effects

- A. The vigor of the forage would increase slightly. Concentration areas of heavy grazing use would continue. Current trends of improvement on the allotment would be expected to remain unchanged.
- B. Livestock use would be less than in Alternatives #1 and #3. However, competition for forage in elk/cattle concentration areas would most likely continue.

Alternative 5 - Wildlife

Direct and Indirect Effects

- A. There would be no use by livestock of vegetation in the Enclosure Unit and reduced use on the Willow Springs Division. The expected change in vegetation in the Enclosure Unit would be a strong trend toward vegetation dominated by grasses.
- B. There would be no competition for forage between elk and livestock in the Enclosure Unit. Reduced forage use on the Willow Springs Division and no change on the reseeded units would occur.

Cumulative Effects

The scope of the cumulative effects analysis area (CEA) is from Cottonwood Creek and Smith Canyon, and is bounded by Highway 89 on the west, Kingston Canyon on the north and Black Canyon on the east. Many of the effects under Issue 1 associated with vegetation management as affected by grazing also apply to this issue.

Elk numbers within recent years have decreased or remained constant. Their use within the analysis area occurs primarily for up to 8 months or about April into December. This use is generally continual for this 8 month period resulting in the repeated grazing of preferred areas. Repeated grazing can lead to loss of vigor and production of desired forage species. This repeated use would occur primarily in the parklands for several months.

Implementation of improved livestock management and vegetation manipulation projects have contributed to improving upland vegetation and watershed conditions. Prior to implementation of improved livestock management and vegetation cover, plant density and composition was less than satisfactory in many areas of this allotment.

Grazing by wildlife (elk and deer) and livestock is not having a significant effect upon the conditions of the upland watershed. Implementation of action alternatives, which further reduces the intensity of grazing and increases livestock distribution, is expected to result in upward trends in the parkland vegetation community. Other areas should remain constant.

ISSUE 3, ECONOMIC IMPACTS OF THE PROPOSED ACTION

The relevant evaluation criteria are:

- A. Evaluate impacts on the livestock carrying capacity.
- B. Evaluate costs of new range improvements.
- C. Evaluate costs of maintaining range improvements.

Alternative 1 - No Action

Direct and Indirect Effects

- A. Under existing conditions the Mud Springs Division is obligated for 300 cattle from 6/1 - 10/10 (1,300 AM's) and the Willow Springs Division is obligated for 127 cattle from 6/1 - 10/10 (550 AM's).
- B. There would be no new improvements proposed.
- C. There would be no additional range improvement maintenance costs. The permittees costs would only increase as does inflation and upon the state of condition of the existing improvements.

Alternative 2 - No Livestock

Direct and Indirect Effects

- A. There would be no livestock grazing. This would result in a loss of 1,850 AM's to the local economy and an estimated \$3,400 to the U.S. Government in grazing fees. There would also be a loss of approximately \$850 to Garfield County from their share of the grazing fees (25% fund).
- B. The estimated Forest Service costs are \$16,000 for a boundary fence in Rocky Ford and improvement of ponds used by wildlife.
- C. The costs of maintenance by the permittees would be zero. The Forest Service would bare the costs of removing unneeded fences.

Alternative 3 - Proposed Action

Direct and Indirect Effects

- A. This would result in a 266 AM's (14%) reduction from the existing permitted obligation. The estimated reduction in grazing fees to the U.S. Government would be approximately \$500 annually and Garfield County's share of this reduction is estimated to be \$130 (25% fund).
- B. The estimated Forest Service costs of new improvements are \$34,100 and the estimated costs to the permittees are \$20,200.
- C. This alternative would be the most costly to the permittees for maintenance due to the increase in the number of improvements.

Alternative 4 - Adjustments

Direct and Indirect Effects

- A. This would result in a 709 AM's (38%) reduction from the existing permitted obligation. The estimated reduction in grazing fees to the U.S. Government would be approximately \$1,300 and Garfield County's reduction is estimated to be \$325 (25% fund).
- B. The estimated Forest Service costs of new improvements are \$12,200 and the estimated permittees costs are \$3,900.
- C. This alternative would be more costly than Alternatives #1 and #2 but less than Alternatives #3 and #5.

Alternative 5 - Wildlife

Direct and Indirect Effects

- A. This would result in a 843 AM's (46%) reduction from the existing permitted obligation. The estimated reduction in grazing fees to the U.S. Government would be approximately \$1,550 and Garfield County's reduction is estimated to be \$390 (25% fund).
- B. The estimated Forest Service costs of new improvements are \$44,500 and the estimated costs to the permittees are \$14,600.
- C. The maintenance costs would be more than for Alternatives #1, #2 and #4.

Cumulative Effects

The scope of the cumulative effects analysis is the Jones Corral C&H Allotment permittees, U.S. Government, and Garfield County. The cumulative effects of the economic impacts to the permittees can only be addressed as the direct and indirect effects in relationship to the analysis area. Additional economic effects are outside the scope of this analysis.

ISSUE 4, DIXIE NATIONAL FOREST L&RMP IDENTIFIES LANDS AS RECREATION, TIMBER, AND WILDLIFE EMPHASIS, NOT LIVESTOCK GRAZING

The relevant evaluation criteria are:

- A. Evaluate impacts that livestock grazing would have on recreational opportunities.
- B. Evaluate impacts that livestock grazing would have on wildlife habitat management.

Alternative 1 - No Action

Direct and Indirect Effects

- A. There would be no changes from the present situation. The existing recreational opportunities would continue. These opportunities are primarily associated with hunting activities and sightseeing. The fences needed for livestock grazing do conflict with some uses of recreation. Heavy grazing of some areas is viewed by some people as lowering the quality of the aesthetic values of the area.
- B. Current impacts to the land would continue. The competition for forage, primarily between elk and cattle, would continue in the parklands. Other vegetative communities do not seem to be impacted by cattle to the degree that the parklands are being affected. Cattle grazing has moved the composition of the vegetation toward more forbs, which has benefited those wildlife species that use these forbs (deer, sage grouse).

Alternative 2 - No Livestock

Direct and Indirect Effects

- A. This alternative would have the most beneficial effects on recreation use. With this alternative the interior fences could be removed. Vegetation conditions should improve in vigor which would improve the aesthetic values of the parklands.
- B. There would be no competition between elk and cattle for forage. The long term trend could have detrimental effects to the forb composition.

Alternative 3 - Proposed Action

Direct and Indirect Effects

- A. The proposed fences could hinder some recreational opportunities. The aesthetic values of the parklands are expected to improve.
- B. There would be less impacts to wildlife habitat than Alternatives #1 and #4. Vegetation communities are expected to improve and there would be forage available for wildlife.

Alternative 4 - Adjustments

Direct and Indirect Effects

- A. Under this alternative the existing fences would remain and no new fences would be constructed. Livestock numbers would be reduced so aesthetic values of the parklands could improve slightly.
- B. There would be an improvement in wildlife habitat compared to existing conditions. However, compared to other alternatives, there would be less response to improvement of vegetation communities.

Alternative 5 - Wildlife

Direct and Indirect Effects

- A. This alternative would have less impacts to recreation opportunities than the other alternatives, with the exception of the No Livestock Alternative.
- B. There would be no cattle/wildlife competition in the Enclosure Unit. In the Willow Springs Division, competition would be light. Wildlife habitat conditions would improve. After some point in time, cattle grazing in the Enclosure Unit would be beneficial to wildlife.

Cumulative Effects

The scope of the cumulative effects analysis area (CEA) is from Cottonwood Creek and Smith Canyon, and is bounded by Highway 89 on the west, Kingston Canyon on the north and Black Canyon on the east. Many of the effects discussed with Issue 1 would also apply with this issue. The analysis area has high recreational opportunities. Most of the activities on the area are associate with the wildlife in the area. Other livestock grazing within the analysis area is by sheep. These areas have good habitat for elk populations. One third of this area is rested each year from sheep grazing. Sheep grazing does utilize more of the forb component of the vegetative composition. This is a benefit to elk habitat, but could impact other wildlife species that rely on forbs. Jones Corral C&H Allotment has been known for large numbers of deer. Grazing sheep on the allotment would be in direct competition with deer. There are no interior fences on the areas grazed by sheep. This improves the recreational opportunities of these areas.

MONITORING

Monitoring will be conducted to measure the effects of the selected management practices and further evaluate (1) range condition and trend, (2) effectiveness of the grazing system, (3) accomplishment of the management objectives and (4) adequacy of the stocking rate. Appendix H contains the monitoring methods that will be used.

CHAPTER V. LIST OF PREPARERS

1. EVAN L. BOSHELL

TITLE: Range Conservationist, Powell Ranger District, Dixie National Forest

EDUCATION: 1975: Bachelor of Science, Range Management; Utah State University, Logan, Utah

EXPERIENCE: Current position since February 1990.
1985-90 Range, Watershed, Recreation & Lands Staff, Springerville Ranger District, Apache-Sitgreaves National Forest
1978-85 Range, Wildlife & Watershed Staff, Springerville Ranger District, Apache-Sitgreaves National Forest
1975-78 Range Conservationist, Williams Ranger District and Chalender Ranger District, Kaibab National Forest

2. CARLTON P. GUILLETTE

TITLE: District Ranger, Powell Ranger District, Dixie National Forest

EDUCATION: 1963: Bachelor of Science, Range Management, Utah State University, Logan, Utah

EXPERIENCE: Current position since June 1988.
1978-88 District Ranger, Salmon Ranger District, Salmon National Forest
1969-78 District Ranger, Leadore Ranger District, Salmon National Forest
1964-69 Forester, Salina Ranger District, Fishlake National Forest

3. DANIEL J. DUFFIELD

TITLE: Forest Fisheries Biologist, Monangahela National Forest

EDUCATION: 1979: Master of Science, Fisheries Biology and Management, Michigan State University, Lansing, Michigan

EXPERIENCE: Current position since February 1992.
1989-92 Forest Fisheries Biologist, Dixie National Forest
1982-89 Regional Fisheries Biologist, Utah Division of Wildlife Resources
1980-82 Staff Biologist, King James Shrimp, Inc.

4. RONALD L. RODRIGUEZ

TITLE: Forest Wildlife Biologist, Dixie National Forest

EDUCATION: 1983: Master of Science, Wildlife Management
Brigham Young University
Provo, UT

1979: Bachelor of Science, Wildlife and Range Management
Brigham Young University
Provo, UT

EXPERIENCE: Current position since April of 1989.

1988-1989: District Wildlife Biologist, USFS - North
Kaibab Ranger District, Kaibab National Forest

1983-1988: Research Wildlife Biologist, Intermountain
Research Station (USFS)

1981-1982: Habitat Biologist, Utah Division of Wildlife
Resources

1979-1981: Non-Game Biologist, Oregon Department of
Fish and Wildlife

5. JAMES BAYER

TITLE: Forest Soil Scientist

EDUCATION: 1966: Bachelor of Science, California State Polytechnic
College, California

EXPERIENCE: Current position: Forest Soil Scientist, 1975 to Present

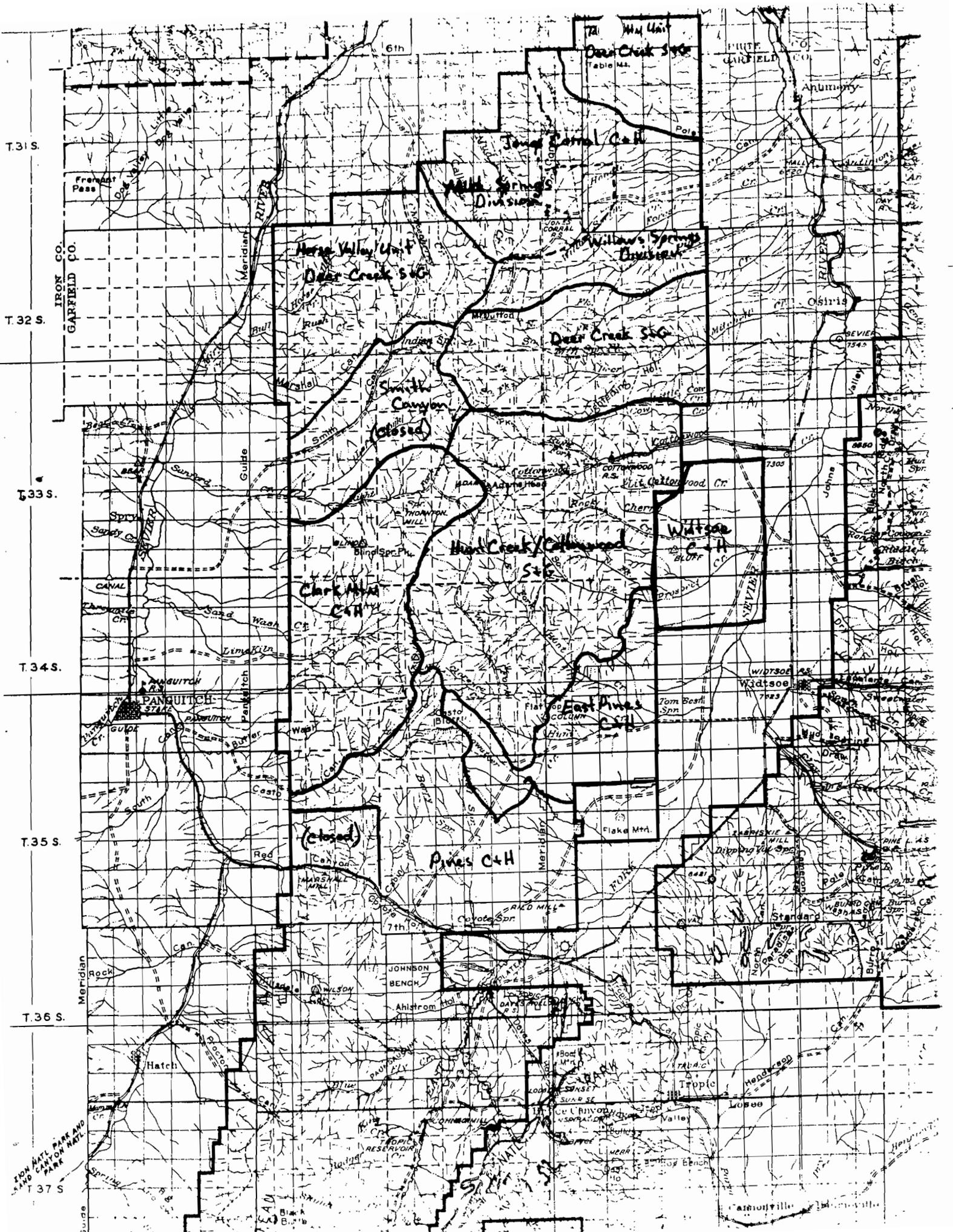
1966-1974: Soil Scientist, Soil Conservation Service,
Washington, NM

1974-1975: Forest Soil Scientist,
Sequoia National Forest

CHAPTER VI. LIST OF AGENCIES CONSULTED

U.S. Fish and Wildlife Service, Salt Lake City, Utah
Utah Division of Wildlife Resources, Southern Region, Cedar City, Utah
Utah Division of Wildlife Resources, State Office, Salt Lake City, Utah
Utah State Extension Service, Panguitch, Utah
Utah State Extension Service, Junction, Utah
Utah State Extension Service, Richfield, Utah
Utah Farm Bureau Federation, Richfield, Utah
Utah State Department of Agriculture, Salt Lake City, Utah
Utah Office of Planning and Budget, Salt Lake City, Utah
Utah State University Extension Service, Logan, Utah
Southern Utah University Extension Service, Cedar City, Utah
Garfield County Commissioners, Panguitch, Utah
Piute County Commissioners, Junction, Utah
Bureau of Land Management, Cedar City, UT
Bureau of Land Management, Richfield, Utah

APPENDIX A
VICINITY MAP



T.31 S.

T.32 S.

T.33 S.

T.34 S.

T.35 S.

T.36 S.

T.37 S.

IRON CO.
GARFIELD CO.

Meridian

Snake

6th

7th

Deer Creek S&G
Table M.L.

WHITE
GARFIELD CO.

Anthonys

Willows Springs
Division

Horse Valley Unit
Deer Creek S&G

Deer Creek S&G

Smiths
Canyon
(closed)

High Creek/Cottonwood
S&G

Widdsoe
C&H

Clark Mtn
C&H

Pines
C&H

Widdsoe

(closed)

Pines C&H

Widdsoe

JOHNSON
BENCH

Ahlstrom

Tropic

IRON MATE PARK AND
SAND CANYON NATL.

Henderson

Almonville

APPENDIX B
MAPS OF ALTERNATIVES

Jones Corral Allotment

Alternative #1-No Change

Mud Springs Division

Willow Springs Division

#3534

North Reseeded Unit

#3542

#3540

#3544

South Reseeded Unit

#3535

#3541

#3539

Rocky Ford/Mule Flat Unit

#3574

Enclosure Unit

#3538

543

Lower Hoodle/Willow Creek Unit

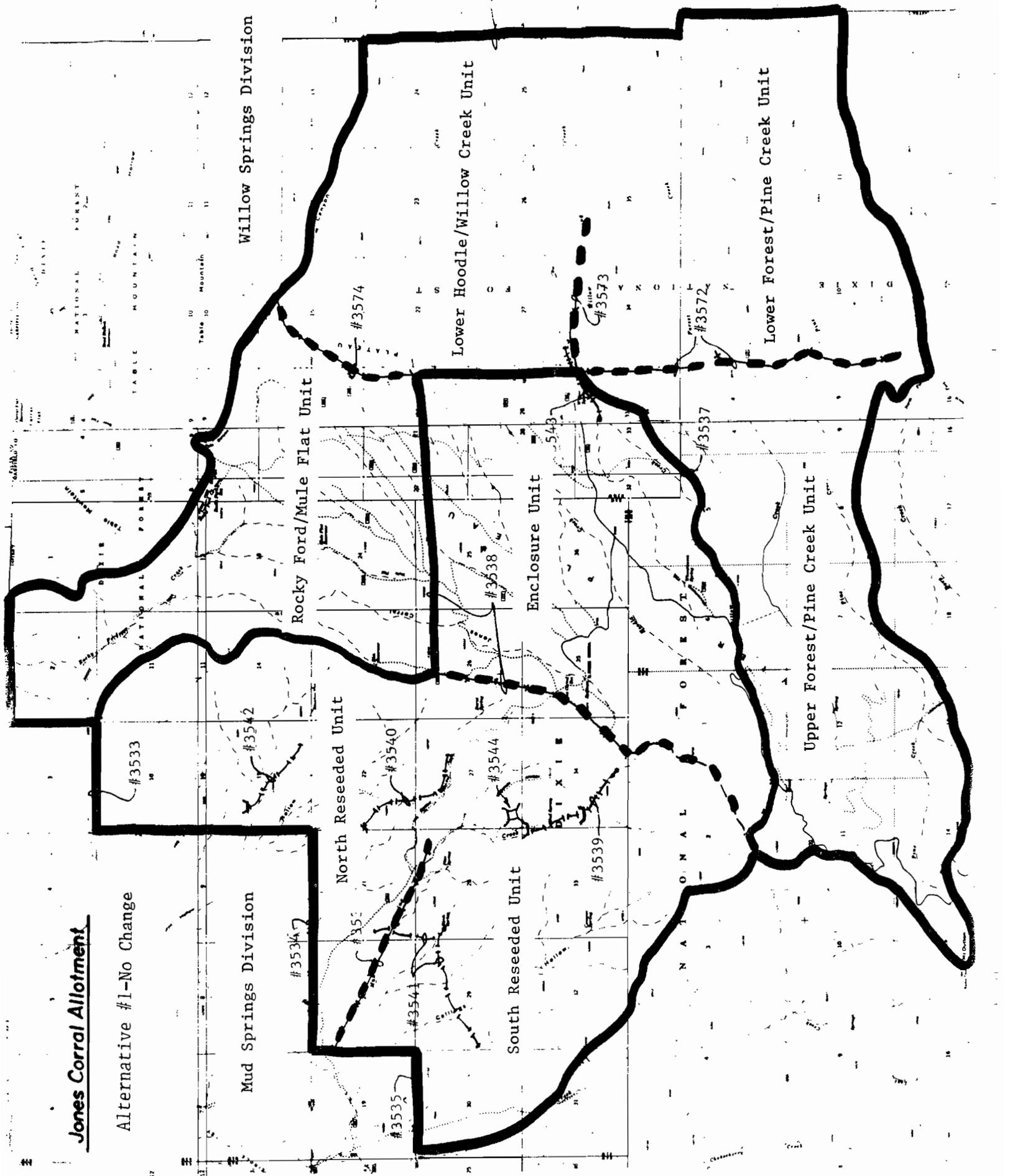
#3573

#3572

Lower Forest/Pine Creek Unit

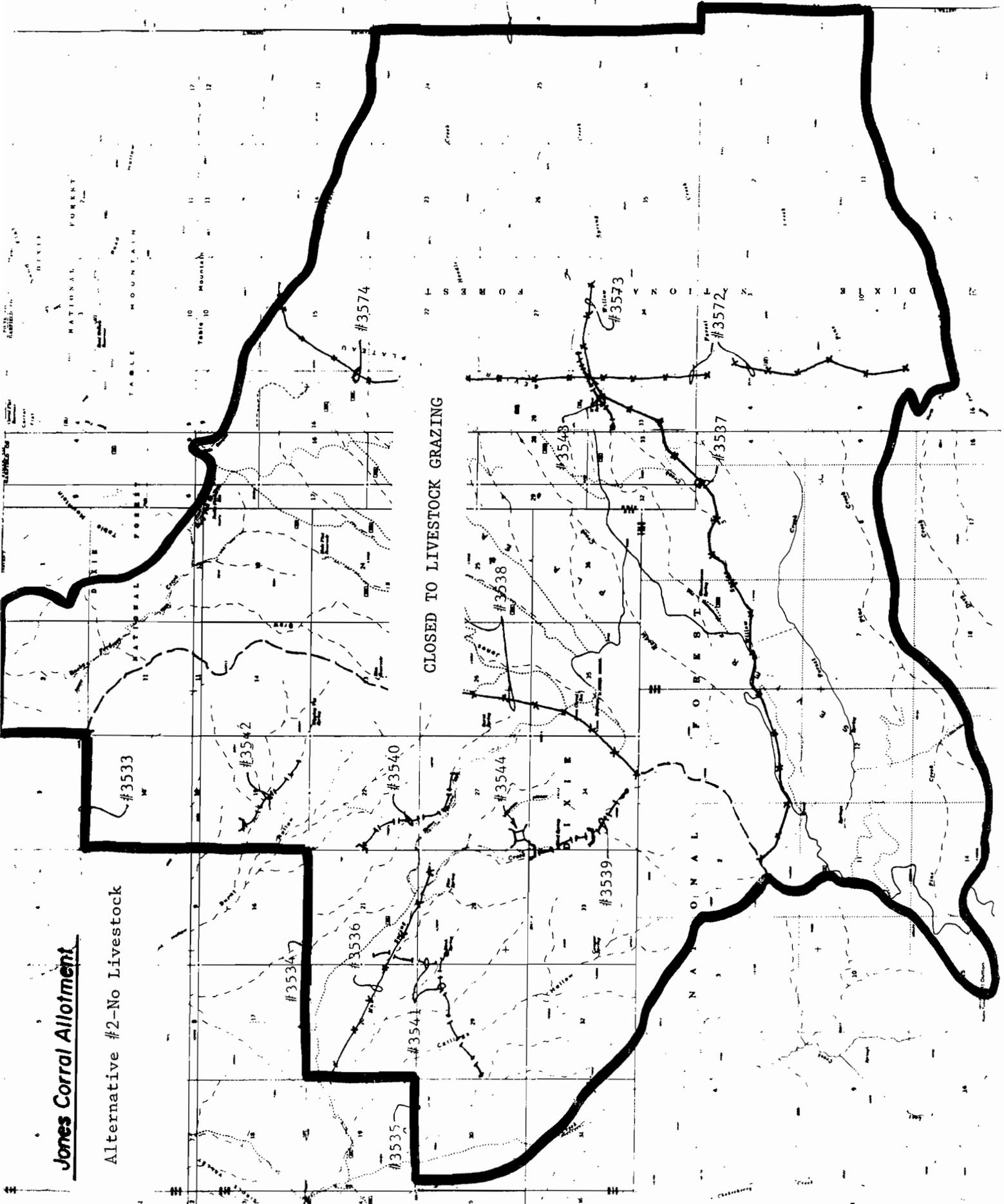
#3537

Upper Forest/Pine Creek Unit



Jones Corral Allotment

Alternative #2-No Livestock



CLOSED TO LIVESTOCK GRAZING

#3533

#3542

#3540

#3544

#3539

#3534

#3536

#3541

#3538

#3543

#3537

#3574

#3573

#3572

NATIONAL FOREST

TABLE 10 MOUNTAIN

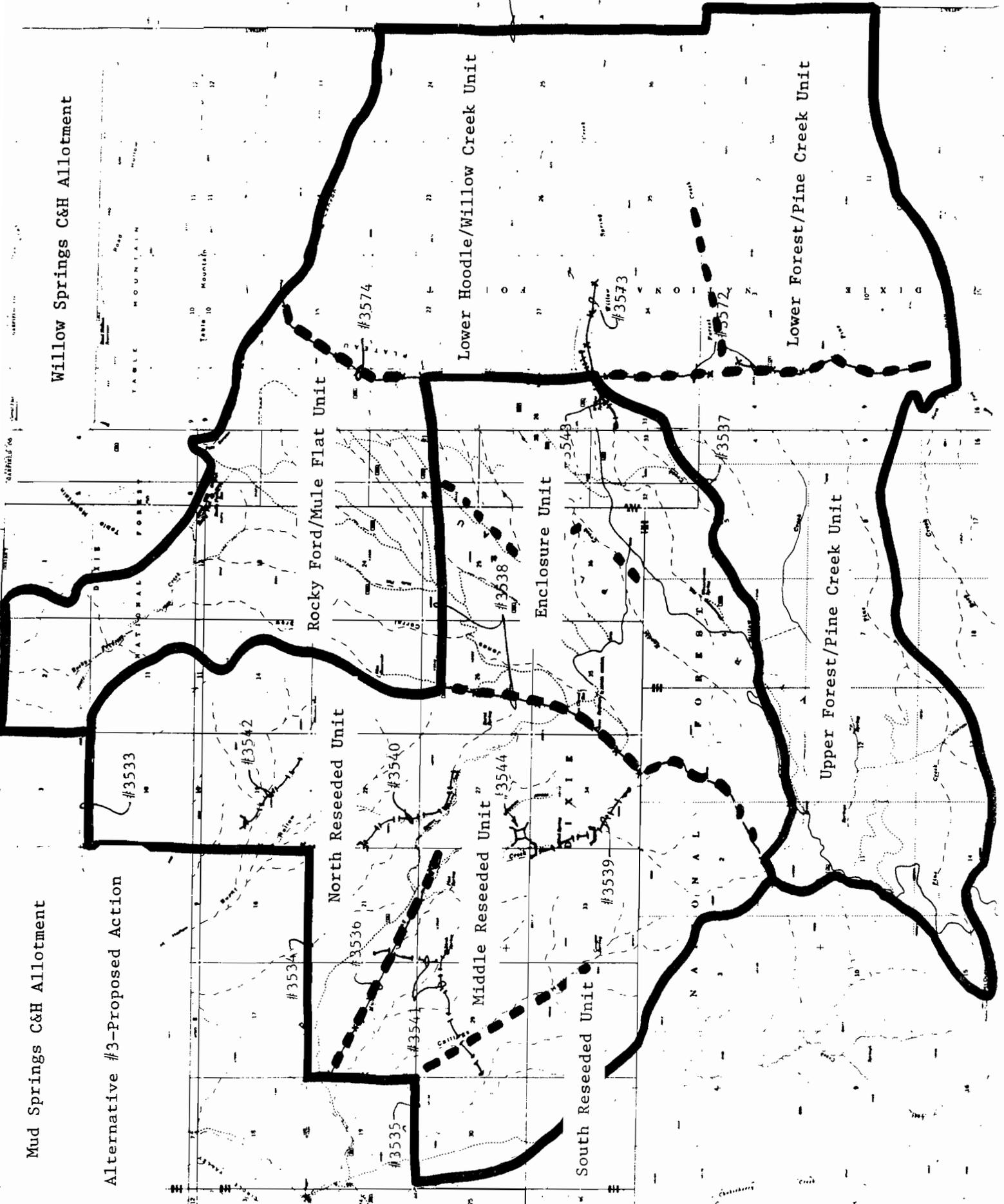
DIXIE NATIONAL FOREST

TABLE 10 MOUNTAIN

Mud Springs C&H Allotment

Willow Springs C&H Allotment

Alternative #3-Proposed Action



#3533

#3542

#3534

North Reseeded Unit

#3536

#3540

#3535

Middle Reseeded Unit

#3544

South Reseeded Unit

#3539

Rocky Ford/Mule Flat Unit

#3574

Lower Hoodle/Willow Creek Unit

#3538

Enclosure Unit

#3543

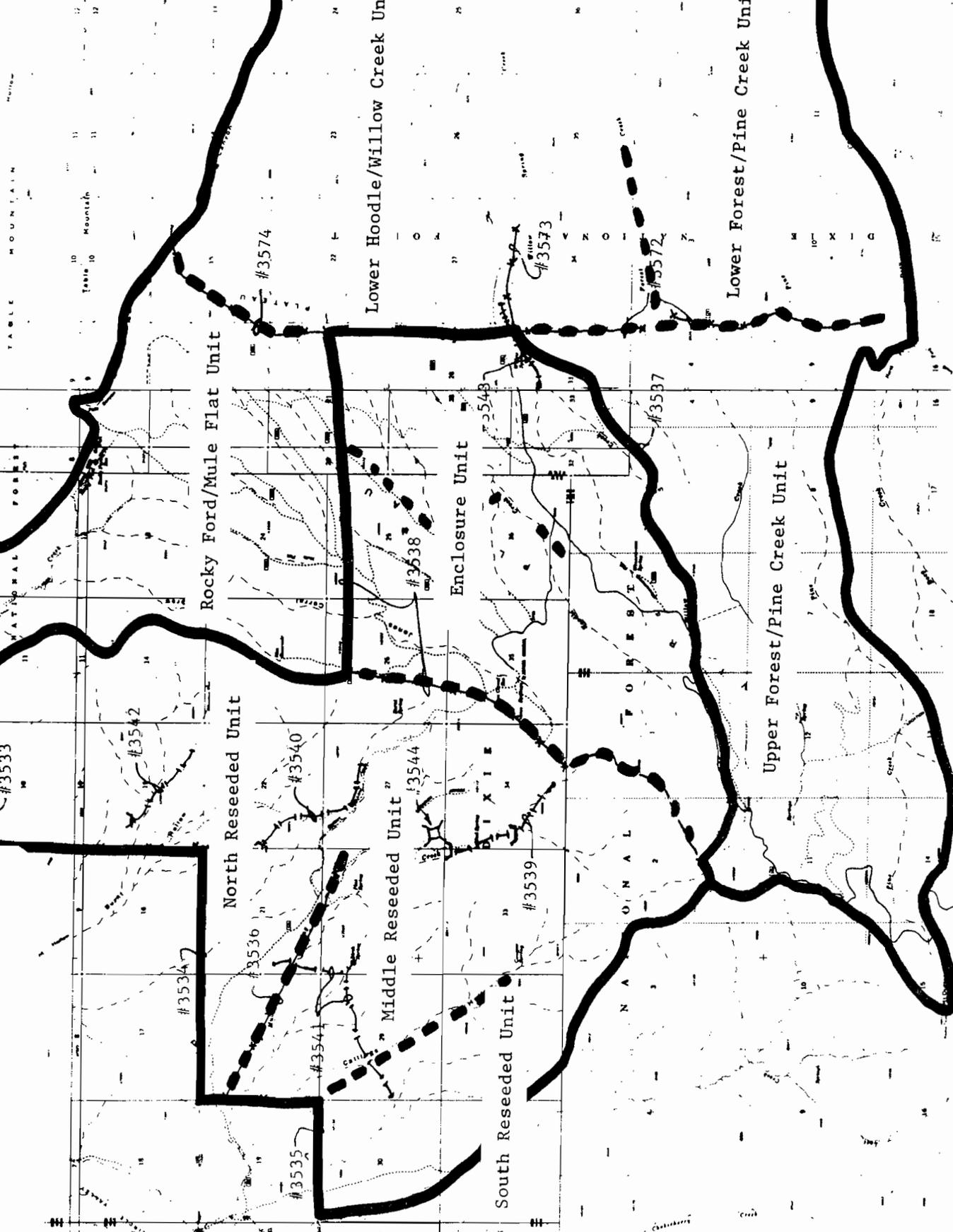
#3573

#3537

#3572

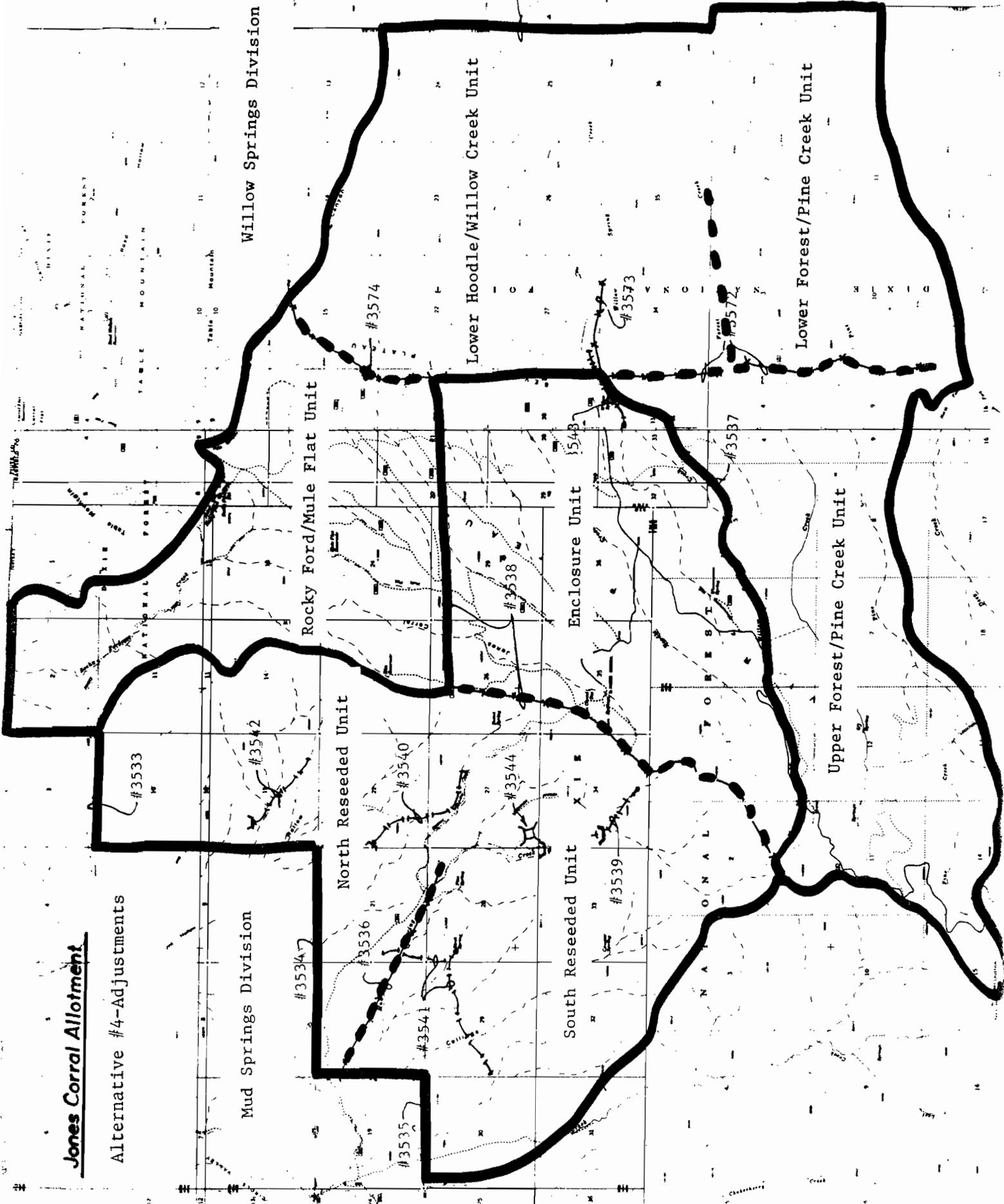
Upper Forest/Pine Creek Unit

Lower Forest/Pine Creek Unit



Jones Corral Allotment

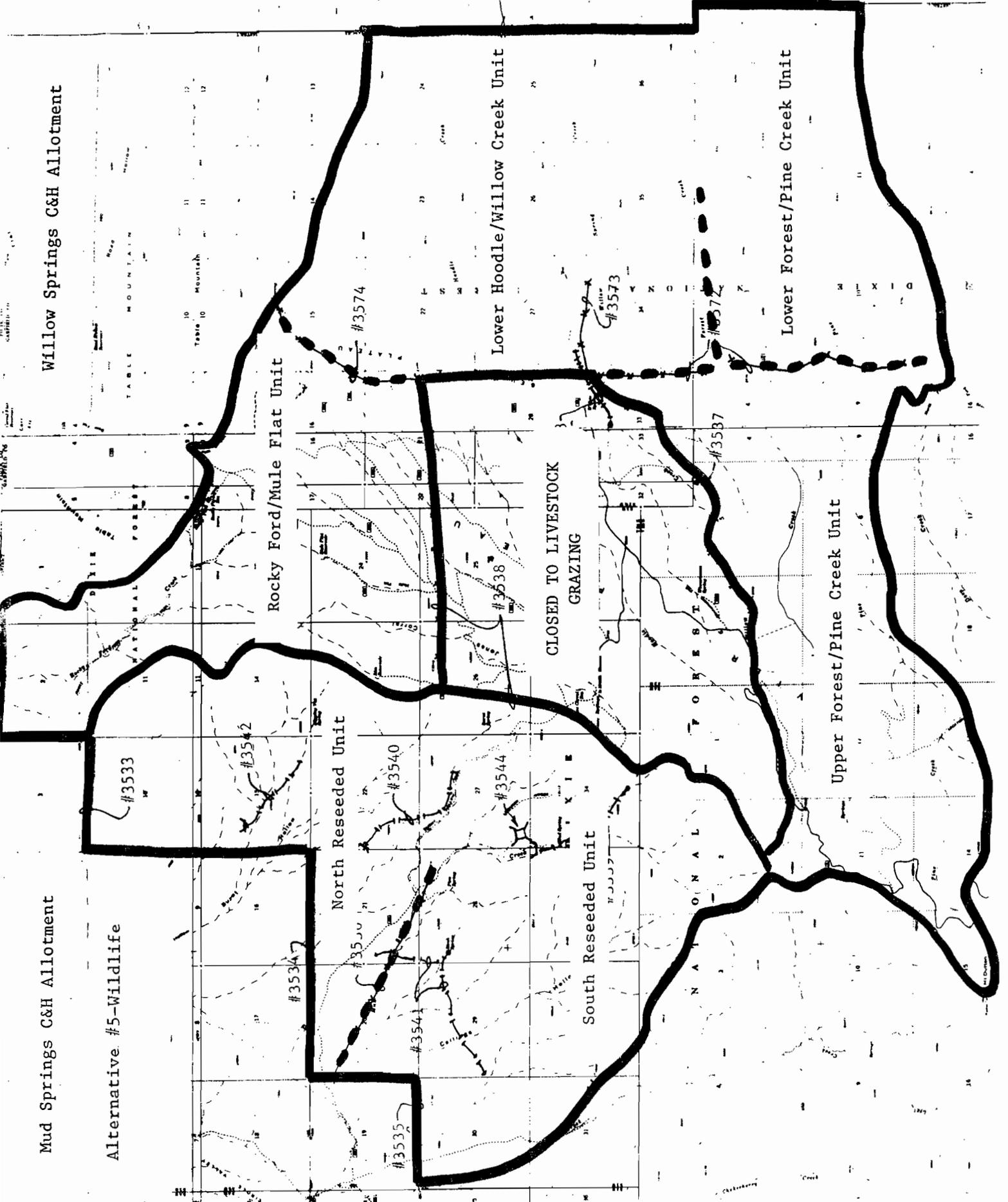
Alternative #4-Adjustments



Mud Springs C&H Allotment

Willow Springs C&H Allotment

Alternative #5-Wildlife



Rocky Ford/Mule Flat Unit

Lower Hoodle/Willow Creek Unit

Lower Forest/Pine Creek Unit

CLOSED TO LIVESTOCK
GRAZING

Upper Forest/Pine Creek Unit

North Reseeded Unit

South Reseeded Unit

#3533

#3542

#3540

#3544

#3538

#3573

#3574

#3537

#3535

#3534

#3541

NATIONAL FOREST

NATIONAL FOREST

TABLE MOUNTAIN

Table 10 Mountain

Table 10 Mountain

Table 10 Mountain

APPENDIX C
UTILIZATION STANDARDS FOR FORAGE SPECIES

DECISION NOTICE
and
FINDING OF NO SIGNIFICANT IMPACT
for
JONES CORRAL C&H ALLOTMENT PLAN
ENVIRONMENTAL ASSESSMENT

USDA FOREST SERVICE, REGION 4
DIXIE NATIONAL FOREST
POWELL RANGER DISTRICT

State of Utah
Garfield County, Utah

INTRODUCTION

The Powell Ranger District, of the Dixie National Forest, has prepared an Environmental Assessment to document the analysis used to assess alternative management actions for the development of a revised Allotment Management Plan for the Jones Corral C&H Allotment.

The Jones Corral C&H Allotment is located approximately 20-26 miles northeast of Panguitch, Utah, and 5-14 miles southeast of Circleville, Utah, and lies in both the Sevier River and the East Fork of the Sevier River drainages (Great Basin).

The Environmental Analysis and Assessment were developed under the implementing regulations of the National Environmental Policy Act (NEPA), Council on Environmental Quality, Title 40, Code of Federal Regulation, Parts 1500-1508; and the National Forest Management Act (NFMA), Title 36, Code of Federal Regulations, Part 219. Further direction is provided in the Dixie National Forest Land and Resource Management Plan, which was approved on September 2, 1986, including Amendment 1. A copy of this environmental assessment can be obtained from the Powell Ranger District, Dixie National Forest, P.O. Box 80, Panguitch, Utah 84759.

The allotment includes Forest Plan Management Areas 2B, 4B, 5A and 7A. Each of these management areas has specific management prescriptions relating to soil, water, range resources, timber, recreation values, fish and wildlife management. Detailed management prescriptions are displayed in the Dixie National Forest Land and Resource Management Plan, Dixie (L&RMP).

PUBLIC INVOLVEMENT

Analysis of the proposed action(s) was initiated through a public scoping process. A public notice describing the action was issued and distributed to private citizens, organizations, and local, State and Federal governments. Through the scoping process an Interdisciplinary Team (ID Team) of resource specialists identified a list of issues to be considered in the analysis. Documentation of the scoping and public involvement process is included in the Environmental Assessment and the project file available at the Powell Ranger District office.

The major issues associated with this proposal include:

1. There is a concern that unsatisfactory vegetation conditions exist. This is evident by the lack of desirable vegetation in the large grass/forb open parklands within the aspen types and the downward vegetation condition trends on the Mud Springs reseeding areas.
2. Some respondents stated elk are competing with livestock for forage, primarily in the open parklands in the higher elevation vegetation types. The concern is that elk are using this forage prior to, during and after livestock use and this use could be detrimental to the vegetation as well as reducing the amount of forage available for livestock, resulting in reduced livestock numbers.
3. There is a concern of the economic impacts on the grazing permittees and loss of revenues to Piute County if livestock numbers are reduced.

4. Most lands within the Jones Corral C&H Allotment are identified as 4B - Wildlife Habitat Management and 5A - Big Game Winter Range. Smaller acreages are identified as 2B - Rural and Roaded Recreation Opportunities and 7A - Timber Management.

PRE-DECISIONAL REVIEW

The Environmental Assessment with identified alternatives was sent to 60 individuals and groups for a 30 day review period, before a decision was made, to scope for additional issues. The Powell Ranger District received five written replies in response to this pre-decisional review.

Comments received were basically grouped into two categories. One category being a concern that not enough consideration was given in the Environmental Analysis to meeting Forest Plan direction of providing nearly optimum wildlife habitat as indicated by affects on management indicator species.

There are four species listed as primary indicator species. Rocky Mountain Elk is the species of most concern with cattle grazing. An elk management plan has been prepared that identify's target numbers within the herd unit. This plan is supported by the Utah Division of Wildlife Resources and the Forest Service. The construction of additional water sources and fences to improve livestock distribution has been determined to be beneficial to the existing elk herd.

Mule Deer, another indicator species, have declined in recent years in the area. This decline is not a result of livestock management practices. These declines are more likely a result of changing vegetation conditions within the winter range (Pinyon-Juniper encroachment), hunting practices, past drought conditions, and etc.

Goshawk and Common Flicher indicator species occupy mature aspen and conifer vegetation types. The proposed management for this allotment does not encourage increased use of these vegetation types. In fact, the proposed improvements encourage cattle use away from these vegetation types.

The other category of concern expressed during this review period dwelt primarily with economic hardships on the grazing permittees. The proposed alternative identifies range improvements that will improve distribution of cattle and wildlife.

Without the improvements, heavy forage use by cattle and wildlife would continue in the open parklands resulting in further reductions of cattle numbers. Utilization standards identified in the Dixie L&RMP will be complied with. Conflicts with wildlife in Wildlife Habitat Management Areas will be resolved in favor of wildlife. That's not to say that elk numbers will be allowed to increase. Elk will be managed using guidelines outlined in the Mount Dutton Elk Herd Unit Management Plan.

The Forest Service will participate with the grazing permittees in construction of these improvements. The Forest Service share is proportionately higher than the permittees share. This is due to the values of these improvements to wildlife, primarily water developments. Installation and maintenance of cattleguards will also be the responsibility of the Forest Service.

There is concern that the 1994 grazing season is too soon to have the livestock management improvements constructed with additional reductions occurring until improvement construction is completed. In 1994 there will be a 19 percent permanent adjustment made in livestock numbers on the Jones Corral C&H Allotment. After 1994, additional adjustments will be made in livestock use if range improvements are not completed.

ALTERNATIVES

Evaluating the issues identified in the analysis, the ID Team developed five alternatives in detail with others being eliminated from detailed study (EA-Chapter II). The alternatives represent a range of management strategies and outputs of which two alternatives meet the goals and objectives of the Dixie National Forest Land and Resource Management Plan and meet Allotment Management Plan objectives. The detailed alternatives considered are:

Alternative #1 (No Action). This alternative does not allow for changes in livestock numbers in the Term Grazing Permits based upon the need to meet proper forage utilization standards. There is an over obligation of permitted livestock on this allotment and grazing use needs to be adjusted.

Alternative #2 (No Livestock Grazing). This alternative would eliminate livestock grazing on the allotment.

Alternative #3 (Preferred Alternative). This alternative divides the Jones Corral C&H Allotment into two allotments. Both allotments would be grazed using deferred rotation grazing systems. Conflicts between livestock and wildlife grazing will be resolved in favor of wildlife while allowing for improvements to better distribute wildlife and livestock, improve soil and vegetation conditions and allow for prescribed numbers of adult elk and livestock.

Alternative #4 (Existing with Adjustments). The Willow Springs Division would be grazed using a four pasture rest rotation system. The Mud Springs Division would have no new range improvements and would be grazed as in the no action alternative. Livestock numbers and season of use would be adjusted.

Alternative #5 (Wildlife). This alternative reduces the conflicts between livestock and wildlife grazing in critical wildlife habitat areas by eliminating livestock in those areas (Enclosure Unit).

DECISION

Based upon my review of the Environmental Analysis, it is my decision to select Alternative #3. Alternative #3, with its mitigating measures, best meets the goals, objectives and standards for the affected Management Areas as described in the Dixie National Forest Land and Resource Management Plan and fully meets the intent and implementing direction of the National Forest Management Act. This decision also meets the purpose and need as described in the environmental assessment for the Jones Corral C&H Allotment Plan Revisions.

The Jones Corral C&H Allotment will be divided into two allotments, named the Jones Corral C&H Allotment and the Willow Springs C&H Allotment. These two allotments presently are divisions of the Jones Corral C&H Allotment.

Willow Springs C&H Allotment. This allotment will be managed using a four pasture deferred-rotation grazing system. One mile of fence will be constructed in the Pole Canyon area to control unauthorized cattle use on Table Mountain (sheep allotment).

The following table shows the planned grazing schedule:

<u>Year</u>	<u>Cattle</u>	<u>Lower Hoodle Willow Springs</u>	<u>Rocky Ford Mule Flat</u>	<u>Lower Forest Pine Creek</u>	<u>Upper Forest Pine Creek</u>
1	158	7/25-8/29	8/30-10/10	6/1-6/24	6/25-7/24
2	158	6/1-7/6	7/7-8/17	8/18-9/10	9/11-10/10

Jones Corral C&H Allotment. This allotment will be grazed using four pastures in a deferred-rotation grazing system. Two reseeded units will be grazed early summer. The cattle will then be moved to the Enclosure Unit to graze the sagebrush ridges until approximately August 15, at which time the whole unit will be grazed until proper use is reached (50% forage utilization) or until scheduled for removal as described below. After grazing the Enclosure Unit, the cattle will then be moved to and graze the remaining reseeded unit.

The following improvements will be necessary to implement this alternative. The South Reseeded Unit will be divided by a new fence (1.1 miles). A fence (2 miles) will be constructed in the Enclosure Unit to hold the cattle on the sagebrush ridges with an option to extend the fence 3/4 mile (lay down fence or log and block fence) if it is necessary for livestock management. The allotment boundary fence near Lost Creek will be extended 1 mile. A short drift fence (.2 mile) will be constructed across the bottom of Mud Spring draw, this is necessary to hold cattle down on the South Reseeded Units. Also, a fence will be constructed in the Rocky Ford area to prevent BLM permitted livestock from drifting onto National Forest System lands. Permittees will not be required to construct or maintain this new section of fence as the fence will be constructed by the Forest Service or others for vegetation and wildlife habitat protection.

The following table shows the planned grazing schedule:

<u>Year</u>	<u>Cattle</u>	<u>North Reseeded Pasture</u>	<u>Middle Reseeded Pasture</u>	<u>South Reseeded Pasture</u>	<u>Enclosure Pasture</u>
1	208	6/1-7/1	7/2-7/26	9/16-10/10	7/27-9/15
2	208	6/26-7/26	9/16-10/10	6/1-6/25	7/27-9/15
3	208	9/10-10/10	6/1-6/25	6/26-7/20	7/21-9/9

Additional fence construction, fence maintenance and water developments will be necessary to implement this alternative. A pipeline from a spring in Hoodle Creek will be piped approximately 7.8 miles to provide water for livestock and wildlife on both the Jones Corral and Willow Springs C&H Allotments. The spring development at Winnemucca Flat will be fenced to help keep livestock on the sagebrush ridges. Piping water away from the Winnemucca Spring overflow to suitable livestock and wildlife habitat downstream (1.0 mile) will be optional. Also a water development in Jones Corral Draw will assist with cattle distribution on both the Jones Corral C&H and Willow Springs C&H Allotments.

Implementation of this alternative is dependant upon the completion (construction) of three fences and the Hoodle Creek pipeline system. Without these key improvements, selected Alternative #3 cannot be implemented. Therefore, until these improvements are completed the numbers of cattle and season of use will be adjusted. Note: Under all alternatives, the Forest Service share of the costs will be dependent upon the availability of appropriated funds by Congress. The following tables show the planned grazing schedules if the improvements are not completed:

Willow Springs C&H Allotment

<u>Year</u>	<u>Cattle</u>	<u>Lower Hoodle Willow Springs</u>	<u>Rocky Ford Mule Flat</u>	<u>Lower Forest Pine Creek</u>	<u>Upper Forest Pine Creek</u>
1	127	7/25-8/29	8/30-10/10	6/1-6/24	6/25-7/24
2	127	6/1-7/6	7/7-8/17	8/18-9/10	9/11-10/10

(Repeat Cycle)

Jones Corral C&H Allotment

<u>Year</u>	<u>Cattle</u>	<u>North Reseeded Pasture</u>	<u>Jones Corral Enclosure</u>	<u>South Reseeded Pasture</u>
1	187	6/1-7/4	7/5-8/17	8/18-9/20
2	187	8/30-9/20	7/15-8/29	6/1-7/14

(Repeat Cycle)

The above schedule will be initiated with the 1994 grazing season (19% permanent adjustment) and 20% non-use in 1995 and an additional 8% non-use in 1996 or until the key improvements are constructed. Permittees will be allowed until the end of the 1997 grazing season to construct the needed improvements. However, if the needed improvements have not been constructed by the end of the 1997 grazing season, then the adjustments as described in Alternative #4 will be made part of the Term Grazing Permits beginning with the 1998 grazing season. Maintenance of Pinyon/Juniper revegetation projects from conifer encroachment is essential to maintaining present grazing capacities for livestock and wildlife. There are 2,400 acres of Pinyon/Juniper revegetation on the Jones Corral C&H Allotment of which 1,200 acres will be maintained by the Forest Service (as appropriated funds become available) and the holders of Term Grazing Permits have the option to maintain 1,200 acres or 120 acres per year for 10 years. If maintenance of these revegetation acres is not performed, allotment grazing capacity will be adjusted as changes in forage production occurs.

Under Alternative #3, 31 head of permitted cattle will not be transferred to the Willow Springs C&H Allotment until needed improvements are constructed on the Willow Springs C&H Allotment. Without these improvements, permitted cattle will remain on the new Jones Corral C&H Allotment resulting in a 47 percent adjustment in permitted use for all users on the new Jones Corral C&H Allotment.

The following paragraphs discuss my reasoning for the finding and clarification of applicable portions of the decision:

1. Alternative #3 has the most potential for improvement of the crested wheatgrass seeding in the Mud Springs Division. This would be accomplished through maintenance of pinyon/juniper reinvasion in these reseeded units.
2. Alternative #3 has more potential for improvement of the open parklands than Alternatives #1 and #4. This alternative would improve cattle distribution.
3. Alternative #3 would increase the ratio of grasses to forbs in the open parklands, but would also maintain valuable forbs for wildlife forage, primarily for deer. Under Alternative #2 and #5 there would be a steady loss of forbs until the open parklands would be dominated by grass species, thus reducing desirable forbs for wildlife.
4. Alternative #3 (with improvements) would result in a loss of permitted livestock use of 19 percent. Without construction of the improvements there would be up to a 47 percent adjustment in permitted livestock use on the new Jones Corral C&H Allotment.
5. Alternative #3 would have fewer adverse impacts to wildlife habitat than Alternatives #1 and #4. There would be an increase in fences on the allotment, however, there would also be an increase in available water on the allotment to better distribute livestock and elk.
6. Alternative #3 would maintain existing permittees ability to manage movement of livestock to and from National Forest System lands with a minimal amount of trailing of livestock.
7. Alternative #3 would allow Roger Westwood to combine his two herds into one, which would improve his management efficiency.
8. Alternative #1 was not selected because it would not meet Dixie National Forest Land and Resource Management Plan Desired Future Conditions.
9. Alternatives #2 and #5 were not selected because closing all or a portion of this allotment to cattle grazing could be detrimental to desired future vegetation conditions of the area. The adjoining allotments are grazed by sheep. Sheep grazing encourages a trend toward vegetation dominated by grass species.
10. Alternative #4 was not selected because even though reducing livestock use would be beneficial to overall health of vegetation conditions, there would still be areas that would receive unacceptable vegetation utilization.
11. Alternative #3, with the addition of the drift fence in the Enclosure Unit, would reduce cattle/elk competition for use of the open parklands until after approximately August 15 each year. Elk use of these areas is reduced after that date due to hunting pressures.
12. Besides the fences in Alternative #3, necessary to improve cattle distribution, three additional fences would be constructed to prevent cattle from grazing Table Mountain, Lower Rocky Ford, and the Lost Creek areas.

13. Alternative #3 would allow for in permittee participation in maintaining pinyon-juniper cover in existing reseeded units. The existing approved elk management plan allows for a summer population of 550 adult elk in the Mount Dutton Elk Herd Unit. It is estimated that there is ample forage available for this number of elk. The limiting factor that controls any future allowable increases of elk on the summer range is the east side winter range carrying capacity. This winter range is not on National Forest System lands.
14. Alternative #3 would not be detrimental in allowing the existing low deer populations to increase in the area. There are other factors that have affected deer populations of the area.
15. Under any selected alternative, increased cattle use in the timber types will not be encouraged. This is to meet the Goshawk Management Guidelines to not graze over an average use of 20% over the total area and no greater than 40% in any one area that could be considered Goshawk nesting areas.
16. Burning of any additional sagebrush areas, to increase grass production, will not occur. The remaining sagebrush areas that have not been burned, will be maintained for sage grouse habitat and brouse species for wildlife use.
17. All mitigating and monitoring requirements identified in Chapter 2, Chapter 4, Appendix H of the EA, and the Standards and Guidelines identified in the Dixie National Forest Land and Resource Management Plan, will be implemented as part of this decision. If monitoring reveals that management objectives are not being met, a determination of the cause will be made and corrective actions identified and implemented, following the appropriate NEPA documentation.
18. As documented in the Project Files, cultural resource surveys have been conducted in all areas of ground disturbing activities. Any potential to disturb historic properties will result in changing the location of the proposed activity (See Cultural Resource Inventories in the Project Files).
19. Some respondents have asked, what if the Permittees do not maintain their fences or graze their cattle in the designated pastures as prescribed? This is answered by stating the Forest Service will resolve any problems through permit administration.
20. Forest Service Manual requires that not more than 20 percent of the Term Grazing Permit will be reduced per year for protection of rangelands. Therefore, the maximum reductions to be taken on the new Jones Corral C&H Allotment are as follows: 19% in 1994; 20% in 1995; and 8% in 1996.
21. Respondents requested clarification of the statement on Page III-3, concerning elk numbers. The plan calls for summer elk numbers north of Forest Creek not to exceed 150 elk. The statement should read: The plan also calls for summer elk numbers north of Forest Creek not to exceed 150 adult elk.

22. Some respondents feel that economic impacts to some individual permittees will be significant if any reductions in livestock use are made. The word "significantly" as used in the Environmental Assessment and this document, is defined in CEQ, Title 40, Code of Federal Regulations, Part 1508.27. Based upon this definition, economic impacts are not significant when considering all factors.

FINDINGS OF NO SIGNIFICANT IMPACT

I have determined that this action is not a major federal action, individually or cumulatively, and will not significantly affect the quality of the human environment. Therefore, an environmental impact statement is not needed. This determination is based on the following factors:

1. Beneficial and adverse effects will not be significant. (EA--Chapter IV)
2. Public health and safety are minimally affected by the proposed action. (EA--Chapter IV)
3. There are no areas with unique geographic characteristics such as historic or cultural resources, prime farmlands, wild and scenic rivers, or ecological critical areas that are significantly affected. (EA--Chapter IV)
4. The effects on the quality of the human environment are not likely to be highly controversial. (EA--Chapter IV)
5. There are no known effects on the human environment that are highly uncertain or involve unique or unknown risks. (EA--Chapter IV)
6. These actions do not set a precedent for future actions which may have significant affects. (EA--Chapter IV)
7. There are no known significant cumulative effects between this project and other projects implemented or planned in the area. (EA--Chapter IV, Cumulative Effects Analysis by issue)
8. There are no known historical or cultural resources affected. (EA--Chapter II, Appendix I, Cultural Resource Inventories-Project Files)
9. All known endangered, threatened and sensitive plant and animal species will be protected. A Biological Evaluation has been prepared for the effects on threatened, endangered, and sensitive species that may occur within the analysis area. The determination has been made that the selected alternative will have no effect on the recovery of these species. (EA--Appendix J - Biological Evaluation: Chapter IV)
10. The actions do not threaten a violation of Federal, State, or local laws or requirements imposed for the protection of the environment.

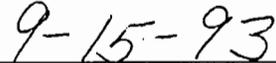
IMPLEMENTATION AND ADMINISTRATIVE REVIEW

This decision is subject to administrative review in accordance with 36 CFR 217. Any appeal of this decision must include the information required in 36 CFR 217.9, (Content of a notice of appeal), including the reasons for appeal. Two (2) copies of the Notice of Appeal must be filed with the Forest Supervisor, Dixie National Forest, P.O. Box 580, Cedar City, Utah 84721-0580 within 45 days of the date of publication in the "Daily Spectrum", St. George, Utah.

This decision may be implemented no sooner than 15 calendar days after publication in the "Daily Spectrum".



CARLTON P. GUILLETTE
District Ranger



Date