

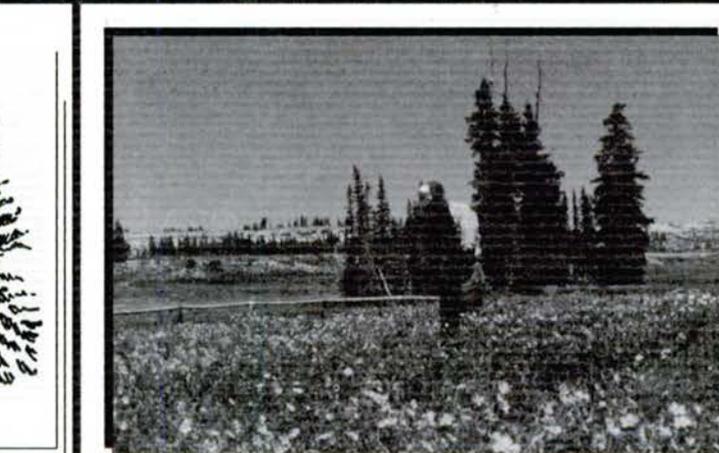
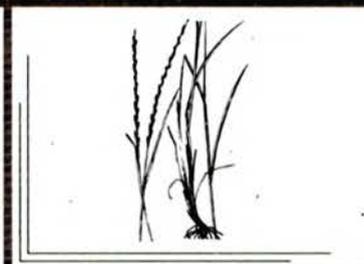
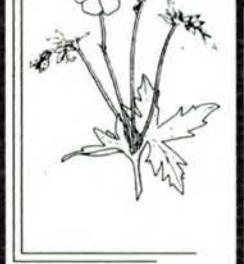
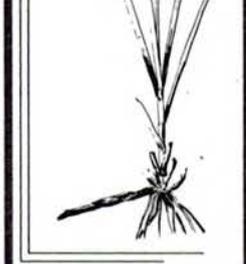
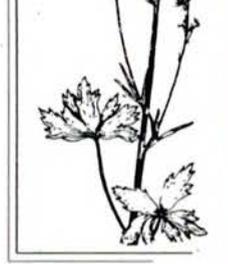
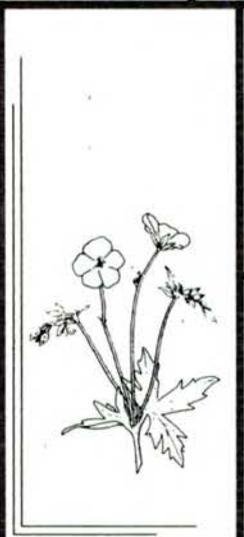
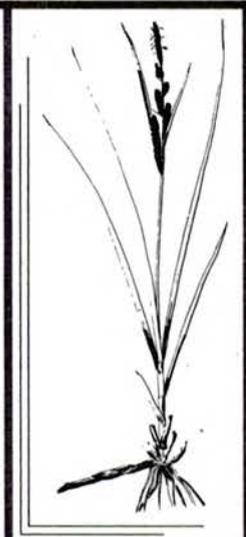
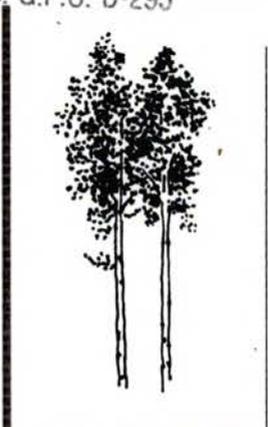
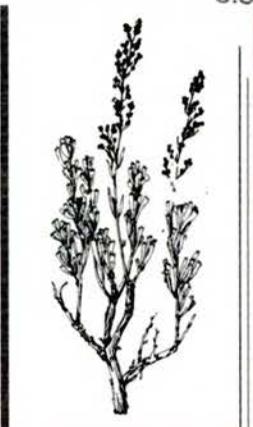
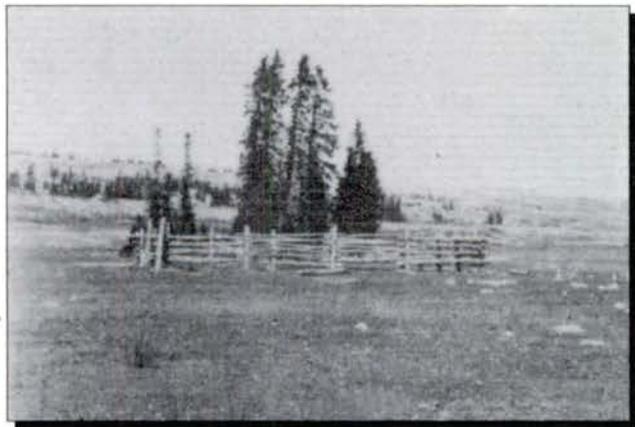
Vegetation Changes on the Manti-La Sal National Forest

A PHOTOGRAPHIC STUDY USING COMPARATIVE PHOTOGRAPHS FROM 1902-1992

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National Forest

Price, Utah

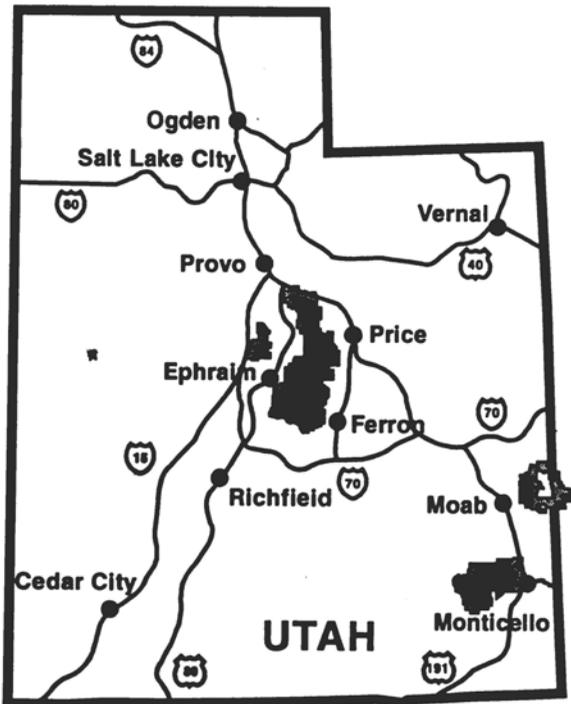
Cover

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| 12 | 13 | 14 | 15 | |

1. Photo shows the Upper Horseshoe area as it looked in 1915 after a period of extremely heavy livestock grazing.
2. Ponderosa Pine
3. Sagebrush
4. Quaking Aspen
5. Larkspur
6. Sedge
7. Geranium
8. Currant
9. Indian Paint Brush
10. Bitterbrush
11. Slender Wheatgrass
12. Indian Ricegrass (state grass of Utah)
13. Columbine
14. Blue Spruce (state tree of Utah)
15. Photo shows recovery that has occurred 75 years later (1990). Pictured in photo is Mont Lewis.

Vegetation Changes *on the* Manti-La Sal National Forest

A PHOTOGRAPHIC STUDY USING
COMPARATIVE PHOTOGRAPHS FROM 1902-1992



Manti-La Sal NF
599 West Price River Drive
Price, Utah 84501

Sanpete RD
540 North Main 32:14
Ephraim, Utah 84627

Ferron RD
115 West Canyon Road
P.O. Box 310
Ferron, Utah 84523

Price RD
599 West Price River Drive
Price, Utah 84501

Moab RD
2450 South Industrial Way
Moab, Utah 84532

Monticello RD
496 E. Central
P.O. Box 820
Monticello, Utah 84535

ACKNOWLEDGEMENTS

Many people have helped with this historical record of vegetative changes on the Manti-La Sal National Forest:

Much credit goes to John Niebergall, retired Ferron District Ranger, for tackling this project, researching files, relocating the sites of the original photographs and rephotographing them, and completing the writeups. All of this was done as a volunteer.

Following their vision, Joel Frandsen, Branch Chief, and Dennis Kelly, Forest Hydrologist, tracked, arranged and coordinated the project.

Carol Fortner of the Ferron Ranger District did the initial typing.

Stan McDonald, Forest Archeologist, completed the section on "Significant Events of the Forest." He was assisted by Forest personnel and retirees who are acknowledged in the Bibliography of that section.

It is also fitting to recognize Robert Thompson, long-time Range Conservationist on the Forest, for his knowledge about the Forest and his unsung contributions in helping to make so many improvements during his career.

The skills of Kathryn Halamandaris, Forest Receptionist, and LuGene Nelsen, a retired Support Services Specialist who lives in Ephraim, were used.

Jim Butler, a retired former Staff Officer on the Forest who now lives in Ogden, researched the historical record of line officers.

Colleen Anderson and Andy Godfrey of the Public Affairs Office and Susan McDaniel and Pat Gardiner of Engineering Graphics in the Regional Office helped by doing the editing, layout and printing.

And, not to be forgotten, are the photographers whose names have been printed under the photographs.

Special thanks go to Charles Peterson, Emeritus Professor of Utah State University and author of "Look to the Mountain," an historical account of the La Sal National Forest; and to his student, Jay Haymond, for his masters thesis on the "History of the Manti National Forest." Appreciation is extended to Ed Geary for his recent book "Proper Edge of the Sky" which augments the other historical accounts. These documents were referenced for the names of early Forest Officers and to identify some of the significant historical events that occurred.

Most of all, thanks is extended to the many dedicated employees of the Manti-La Sal National Forest, past and present, for greatly improving the overall condition of the Forest, a gift to the public now and hopefully forever.

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INTRODUCTION

Perhaps the human tendency to use the past as a guide to the future prompted this look at past and present vegetative conditions on the Manti-La Sal National Forest.

With preconceived ideas of how the landscapes looked prior to European settlement, or since the Forest area was reserved, some Forest employees and members of the public are very interested in the effects of Forest management since then. This publication is for them. It uses comparative photography to display the changes that have occurred over time on the Manti-La Sal National Forest through resource management and natural ecological processes.

In general, this photographic record (covering 90 years of Forest Service management on this 1.4 million-acre Forest) shows that overall conditions have greatly improved. There is much more vegetative diversity at both the landscape and site levels. The soil is much more stable than it was when the Forest was established. There is considerably more biomass today than existed in the early 1900's, and even as late as the 1960's. These facts come as no surprise to most Forest personnel as monitoring studies and site-specific photographs reflect this trend.

Yet, there are concerns for the future. Concerns include the loss of sage and grass openings as pinyon-juniper encroaches and occupies these sites. Conifers, primarily sub-alpine fir, continue to establish themselves in aspen stands. As conifers eventually become the dominate canopy cover, aspen disappear from certain sites in the ecosystem. The Forest Land and Resource Management Plan recognized these situations and current practices are helping to guide/reverse these trends so a variety of vegetative types (biodiversity) can provide for the many uses and demands of the Forest.

The early photographs used in this publication were taken from 1902 to the 1960's and are compared to photographs taken in the early 1990's—an elapsed time of from 30 to 90 years. A map that shows the general location of each photograph is included so those who are interested can relocate the sites and observe the changes that have occurred.

This historical photo record shows that over 90 percent of the sites that were studied have improved. That is an exceptionally good record and a tribute to stewardship through the years. The contributors of this document are grateful to the many employees, permittees and other partners and associates that made this possible. Representing that group are the line officers—Forest Supervisors and District Rangers—who are listed by District and tenure in the Appendix. The important partnership role of the scientists, researchers and helpers at the Great Basin Station have been acknowledged by listing the Project Leaders and their tenure.

Some historical events are included in this document to help explain changes in vegetation over time. Many important events had to be excluded, like major wildfires and day-to-day management activities, even though they were surely a part of the historical landscape. The past events or periods chosen and presented chronologically are primarily those considered significant in getting the Forest where it is today. The future is unwritten.

THE STUDY PLAN

When the decision was made to retake pictures of the sites of some old Manti-La Sal National Forest photographs, the first step was to review the process used by Dr. Kendall L. Johnson in his 1987 publication "Rangeland Through Time." His process was basically used to obtain the information for this publication.

One hundred twenty four pictures were selected for retakes. All but eight sites were located and rephotographed. From this group, 47 photographs were selected for this publication. They represent all Ranger Districts and many different vegetative types.

The following steps were used in obtaining the 1992 photographs:

STEP 1

Locate Historical Photographs

There is a Forest historical photograph file in the Supervisor's Office in Price, Utah. The entire file was reviewed and 25 to 30 photographs from each Ranger District were selected for retakes. Only photographs with identifiable features, such as mountains, canyons or rock formations, were used. These features were needed to pinpoint the location of the original photograph. Photographs of large, open flats, uniform stands of timber or closeups of the ground surface could not be used.

Additional photographs were obtained from the Intermountain Forest and Range Experiment Station and the Utah State Division of Wildlife Resources in Ephraim, Utah.

The Manti Division of the Forest (San Pete, Ferron and Price Ranger Districts) had photographs dating back to 1902, with many from the 1910's, 1920's and 1930's. No older photographs were found for the La Sal Division of the Forest (Moab and Monticello Ranger Districts). The oldest photographs for this Division were from the late 1940's and early 1950's. No photographs less than 30 years old (1962) were used for this project.

Photographs having several near, mid and far reference points that are recognizable today could be relocated very close to the original point. Those with fewer reference points were not as precise. In a few cases, change had either obliterated the camera station or made it impossible to see the photo subject from the original point. In such instances, suitable offset views were used. All photographs in this publication were relocated with enough precision for comparison.

STEP 2

Determining General Location of Each Photograph

Once the 25 to 30 photographs from each Ranger District were selected, their location had to be determined. Most photographs had a general locality description written on them that included the drainage, specific ridge or flat, or an allotment name. These photographs were taken to Robert Thompson, long-time Range Conservationist on the Manti-La Sal National Forest. He was able to plot on a map the approximate location of nearly all the photographs. Those he couldn't were turned over to Steve Monson, Intermountain Forest and Range Experiment Station, and Richard Stevens, Utah Division of Wildlife Resources, for location identification on the map.

STEP 2

Field Location of Photograph Sites

With the map and photograph in hand, most photo points could be accurately located. This was the most time-consuming part of the process. When the photo point was accurately located, three sets of new photographs were taken: black and white, colored prints, and colored slides. A record also was made of the date, time of day, vegetation and soil conditions, with a sketch map of the exact location.

Only one trip was made to each photo point. No attempt was made to visit the site on the same date or same time of day as the original photograph.

STEP 2

Taking the Photographs

It was found that the old photographs were taken with cameras that had various focal lengths. Because of this, a 28-70mm zoom lens was used so that the correct focal length could be obtained for each photograph. A standard skylight filter was used. All slides were taken with a Pentax ME automatic camera while the black and white and colored prints were taken with a Pentax K-1000 camera. Dot on map is approximate location where photo was taken and arrow points the direction of camera.

STEP 5

Captioning

The name of the photographer is shown beneath each photograph. The printed captions for the historic photographs were recorded from the original descriptions—including blanks. The captions on the retakes were written by the photographer. Since some terms are peculiar to the Forest Service and some acronyms have been used, a Glossary has been included in the Appendix.



21 - 54

Lowell J. Farmer

1954

38 YEARS LATER



John Niebergall

9-18-92

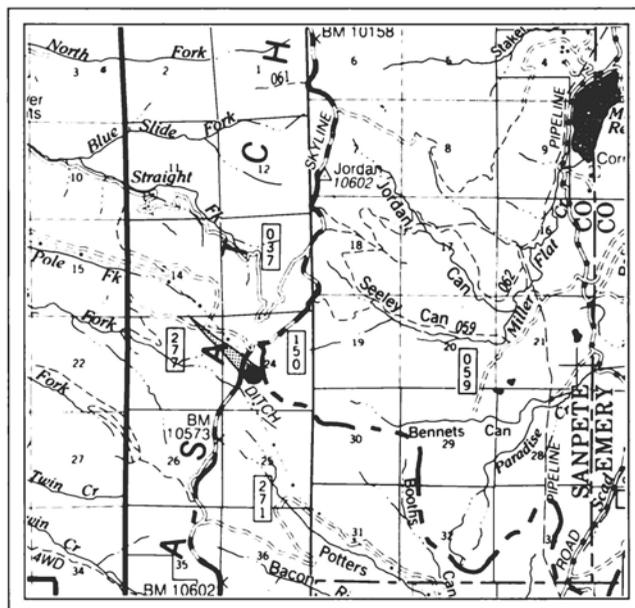
MT. PLEASANT WATERSHED PROJECT SANPETE R.D.

COMMENTS ON ORIGINAL PHOTO

On the Mt. Pleasant Watershed Project. Point is on the Skyline Drive overlooking the gullied area below the road going into the first project done in 1950.

1992 SITE EVALUATION

The slope in the background has been treated with contour trenches; gullies are no longer visible. Powerlines now pass through the lower part of the 1992 photo.





C28 - 58

Wes Carlson

11-6-58

34 YEARS LATER



John Niebergall

9-14-92

FISH CREEK DRIVEWAY PRICE R.D.

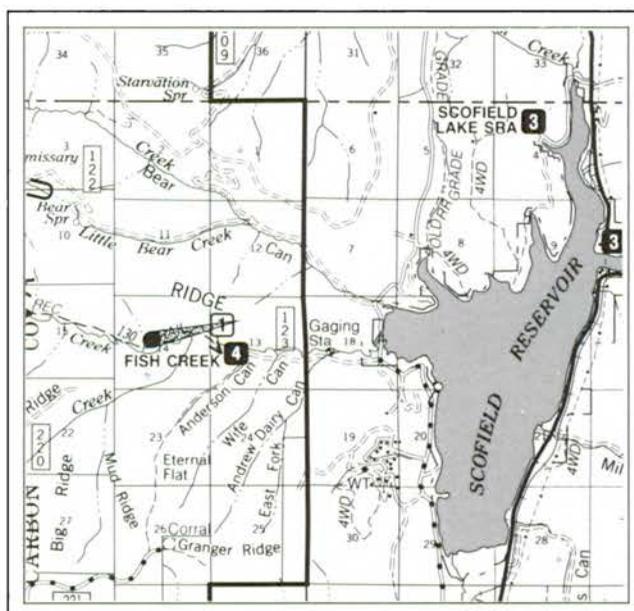
COMMENTS ON ORIGINAL PHOTO

This is the south slope of Fish Creek Ridge approximately 1 mile above the Forest boundary. Ranger Thursby says, to his personal knowledge, this slope has not been grazed since 1941 except where the trail goes around the lower edge. He does not think it has been grazed since the Forest was created. French Creek S&G.

1992 SITE EVALUATION

The most obvious change is the increase in willows along the stream channel. The slope in the foreground has increased vegetation, primarily shrubs. The 1958 photo does not indicate much bitterbrush.

In 1992, the stand is 60-40 percent sagebrush and bitterbrush. The gullies on the slope are not as apparent, an indication that healing is taking place. There are now a number of beaver dams in the stream.





C3 - 57

Simon L. "Buck" Cuskelly

7-17-57

35 YEARS LATER



John Niebergall

8-6-92

HARTS DRAW ALLOTMENT MONTICELLO R.D.

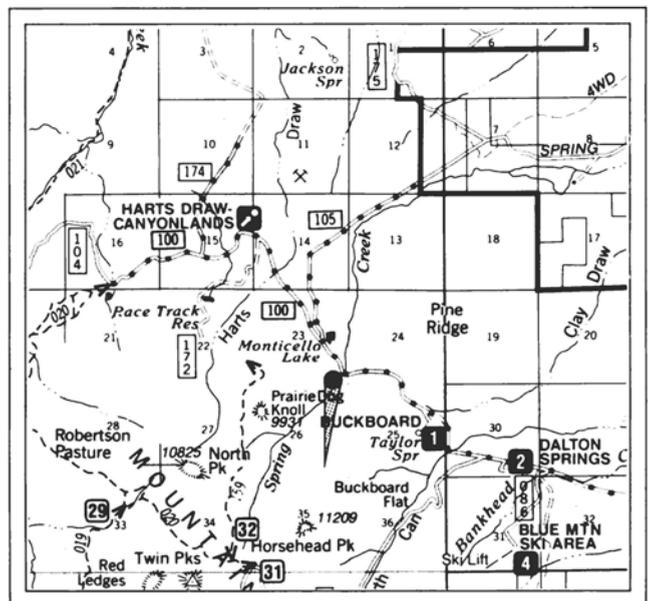
COMMENTS ON ORIGINAL PHOTO

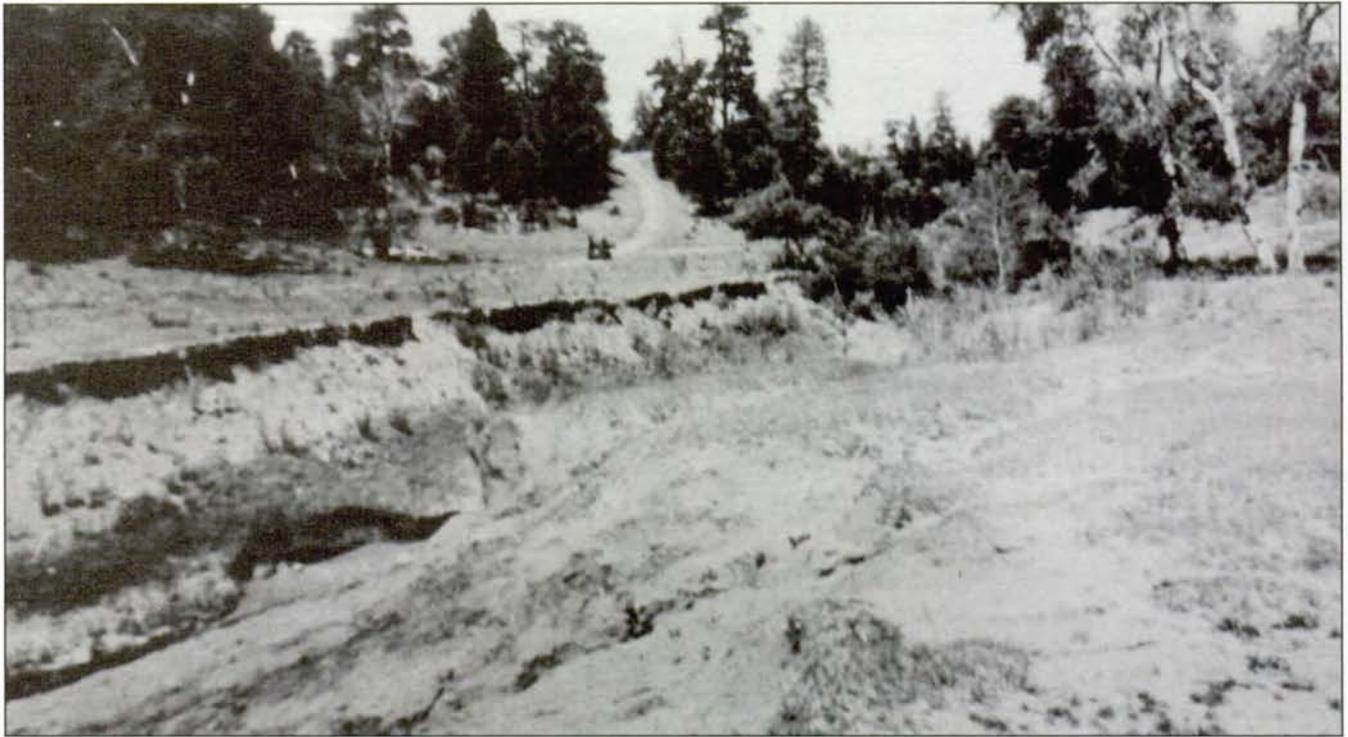
Wet meadow is transformed into dry meadow by gullies. Harts Draw Allotment.

1992 SITE EVALUATION

The hillside on the right side of the photo has had contour furrows constructed on it. Gullies in the meadow have healed with more vegetation, mostly carex, smooth brome, poa and some iris.

This is now a wet meadow again with water on the surface. You can get your feet wet walking to the photo point.





H5 - 57

Kimball T. Harper

1957

35 YEARS LATER



John Niebergall

8-7-92

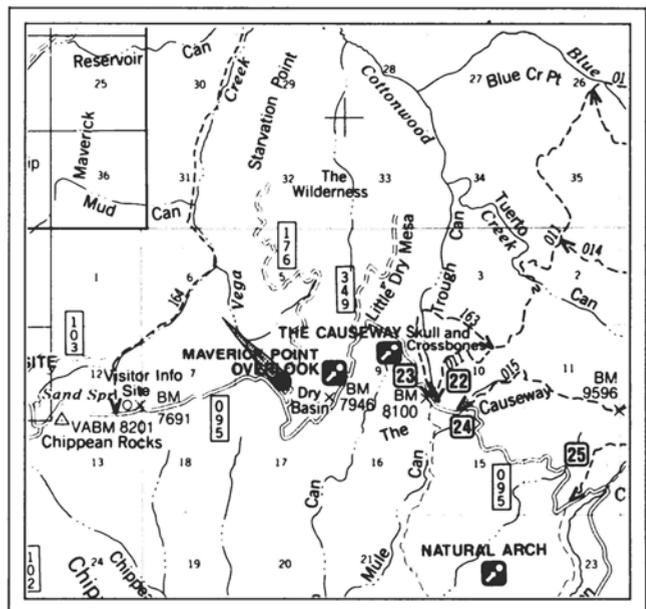
BELOW DUGWAY ON MAVERICK POINT MONTICELLO R.D.

COMMENTS ON ORIGINAL PHOTO

Cottonwood Allotment. Sandy, loose soil is near the bottom of dugway on Maverick Point. (Used but should not be.)

1992 SITE EVALUATION

The gully has stabilized because of ponderosa pines now at the site. The large aspen on the right side of the 1957 photo have died and fallen to the ground. Younger aspen now grow there. The soil in the foreground is very sandy, but groundcover and vegetation have increased. The grasses that have been introduced are species of wheatgrass and smooth brome.





Julian Thomas

Late 40's - early 50's

40 YEARS LATER



John Niebergall

8-6-92

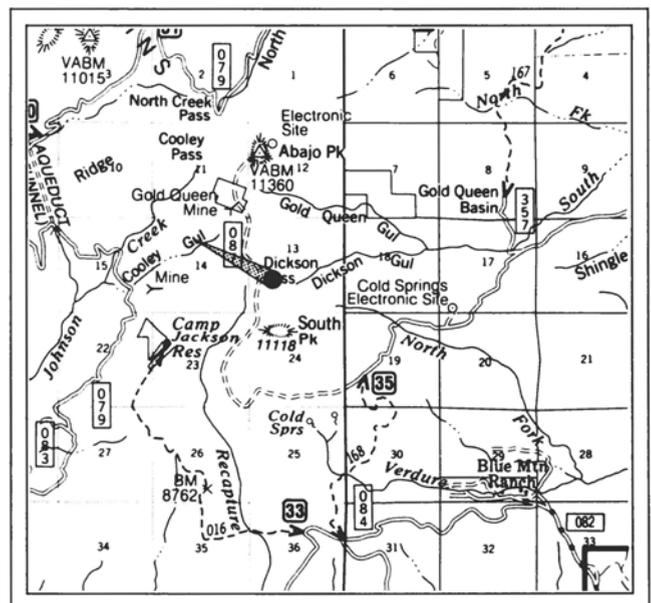
HEAD OF RECAPTURE MONTICELLO R.D.

COMMENTS ON ORIGINAL PHOTO

Head of Recapture Creek. Late 1940's
or early 1950's.

1992 SITE EVALUATION

The hillside has been treated with
contour trenches. Gully patterns have
been broken up and gullies have
healed. Willows in the draw on the
right side of the photo have
increased.





H10 - 60

John L. Edwards

9-60

32 YEARS LATER



John Niebergall

8-6-92

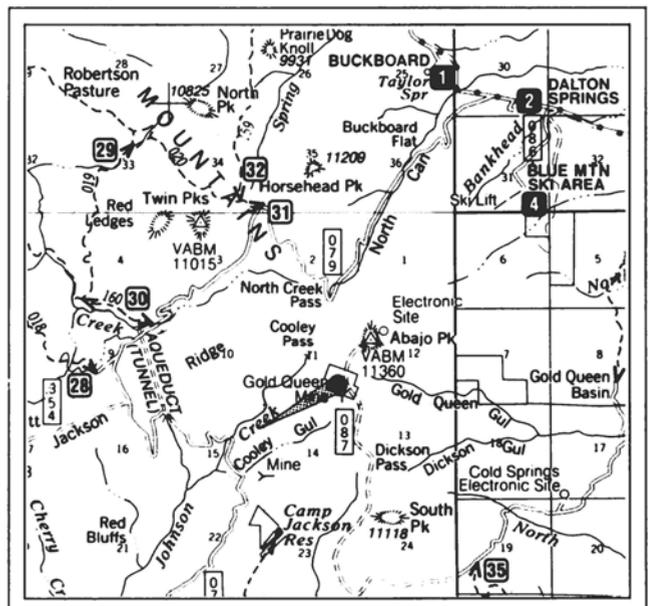
COOLEY GULCH MONTICELLO R.D.

COMMENTS ON ORIGINAL PHOTO

This is Cooley Gulch before terracing and planting of grass. The photo was taken from an old mine shaft along Abajo Peak road looking northwest of Cooley Gulch-Blanding Watershed.

1992 SITE EVALUATION

The gullies have healed because of the terracing that has been done. The foreground has more groundcover on this harsh, high-elevation site. The shrubs in the center of the photo are still there.



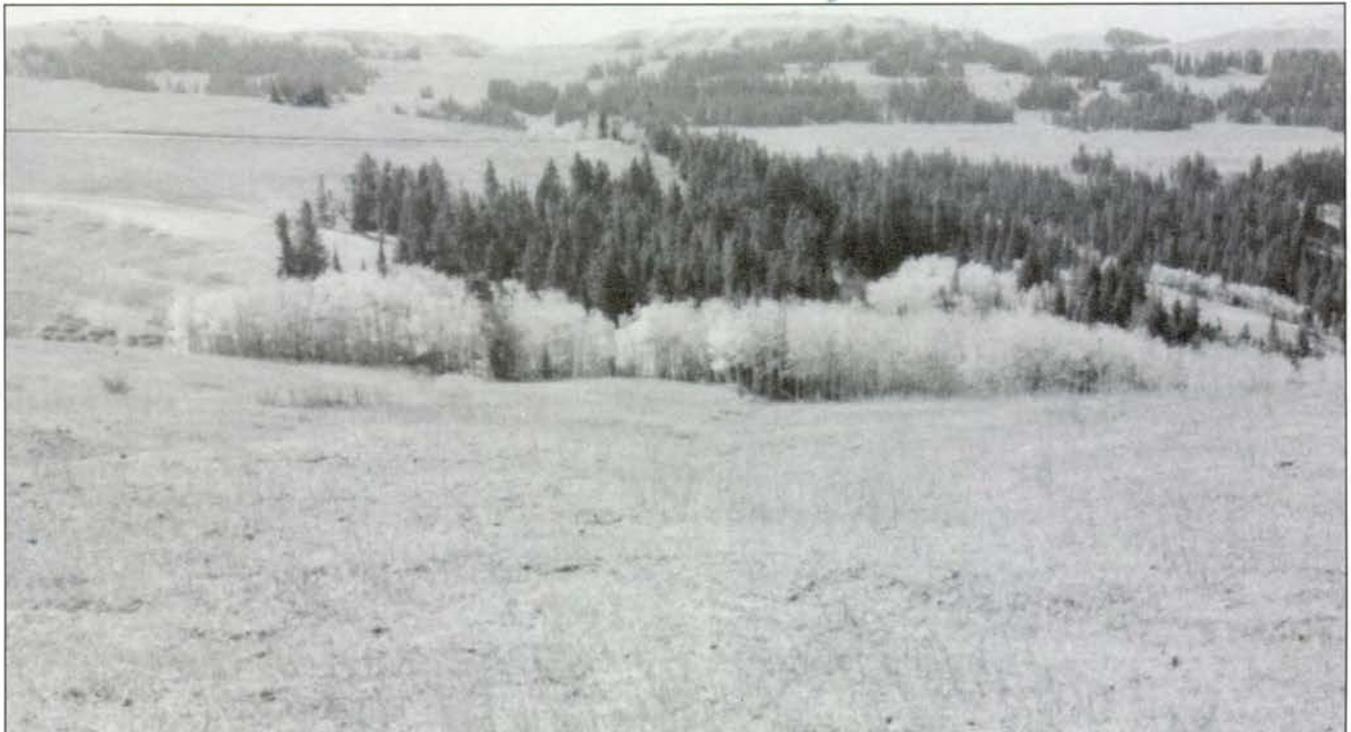


386203

L. C.

9-16-38

54 YEARS LATER



John Niebergall

9-21-92

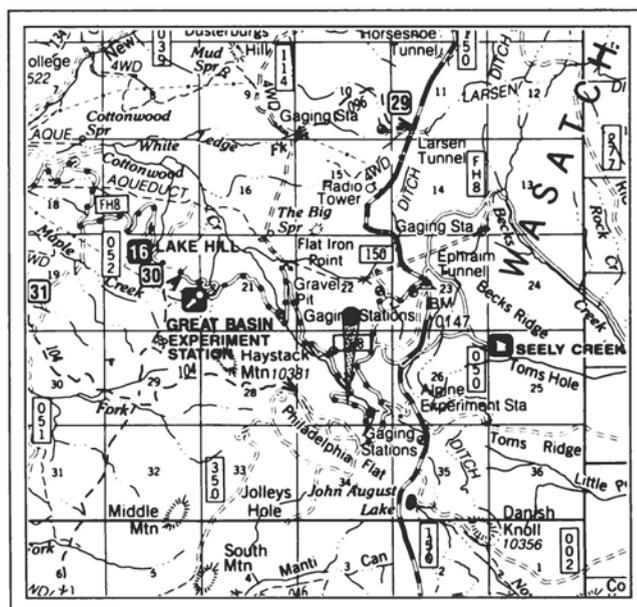
LOOKING TOWARDS PHILADELPHIA FLAT SANPETE R.D.

COMMENTS ON ORIGINAL PHOTO

There is a gully on the hill. The middle of three major gullies. In the distance (to the south), is Philadelphia Flat. The Philadelphia Flat enclosure is about a mile away.

1992 SITE EVALUATION

Contour furrows have been constructed across this hillside. Gullies are now healed, having filled in considerably. Groundcover (vegetation) has increased. Vegetation is primarily smooth brome and wheatgrass. It appears that sheep bedded in this area this year. Note that the clump of elderberry in the left center of the original photo is still there, but possible smaller.





463245

Lowell J. Farmer

10-3-50

4 2 Y E A R S L A T E R



John Niebergall

9-18-92

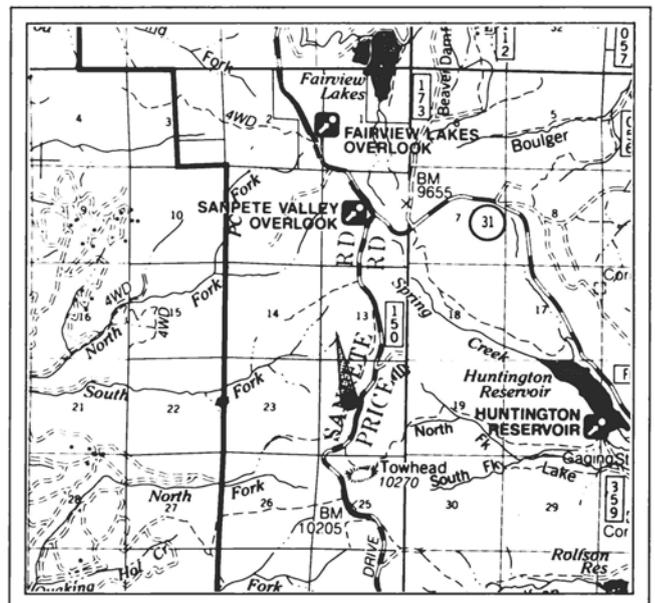
HEAD OF BIRCH CREEK SANPETE R.D.

COMMENTS ON ORIGINAL PHOTO

Flood source area. Head of Birch
Creek drainage.

1992 SITE EVALUATION

Watershed improvement work was
completed on the far slope in 1992.
Gullies still exist but generally there
appears to be more vegetation and a
less pronounced gully pattern.



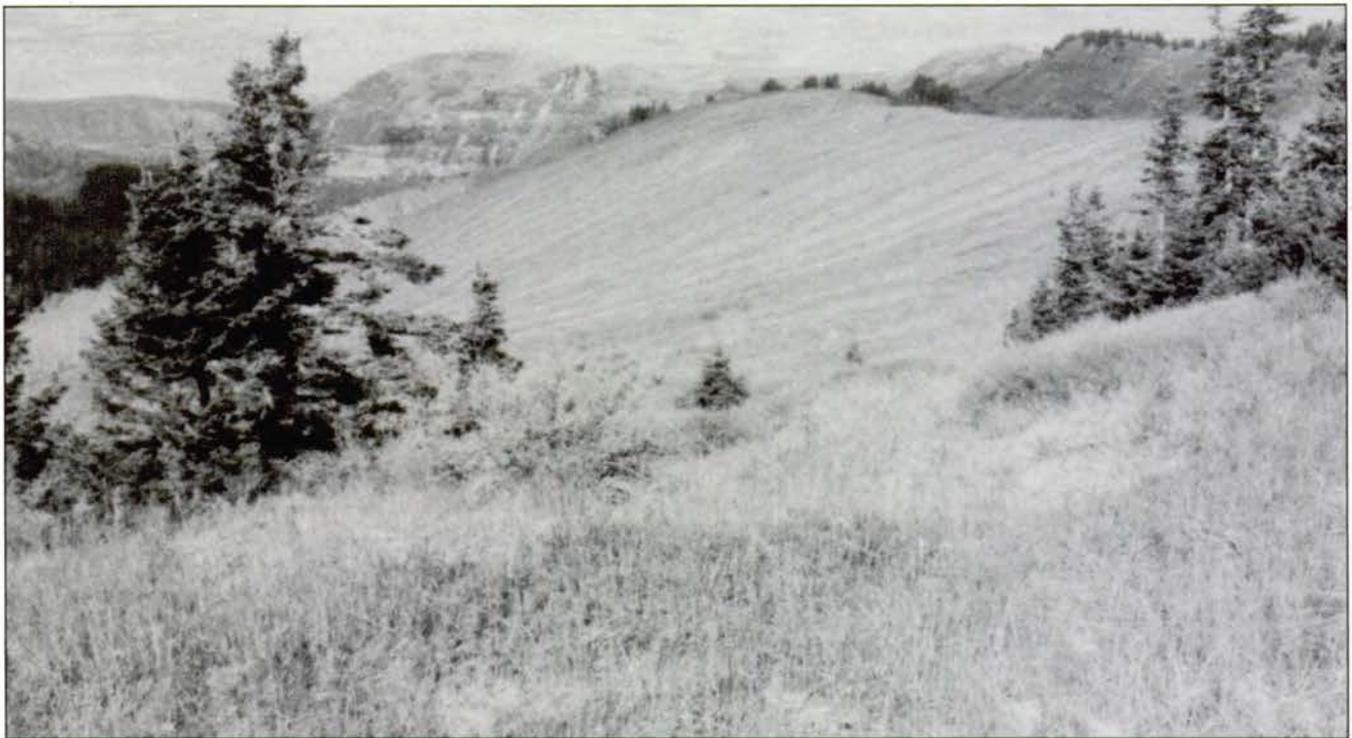


25 - 55

H. Foulger

1955

35 YEARS LATER



John Niebergall

9-18-92

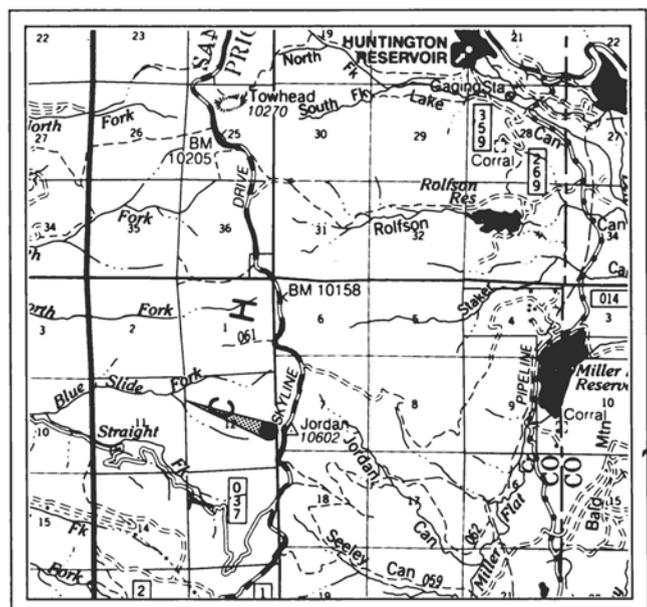
HEAD OF SOUTH FORK BLUE SLIDE SANPETE R.D.

COMMENTS ON ORIGINAL PHOTO

Looking west into South Fork Blue Slide "before" treatment. The photo was taken from point 30 feet west of work road into Blue Slide Camp and about 300 feet from Skyline road.

1992 SITE EVALUATION

The area has contour trenches constructed on it. The gully in the center foreground is completely healed with grass, primarily smooth brome.





C4 - 57

Ted Cox

9-18-57

35 YEARS LATER



John Niebergall

7-17-92

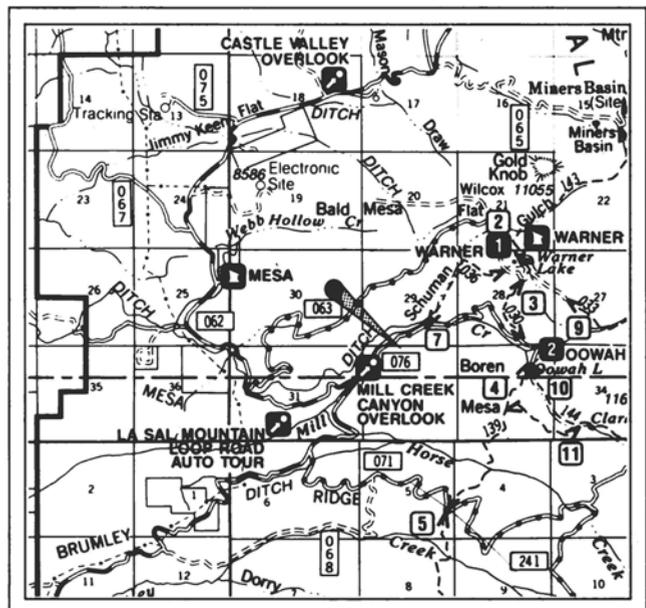
SOUTH HOLLOW MOAB R.D.

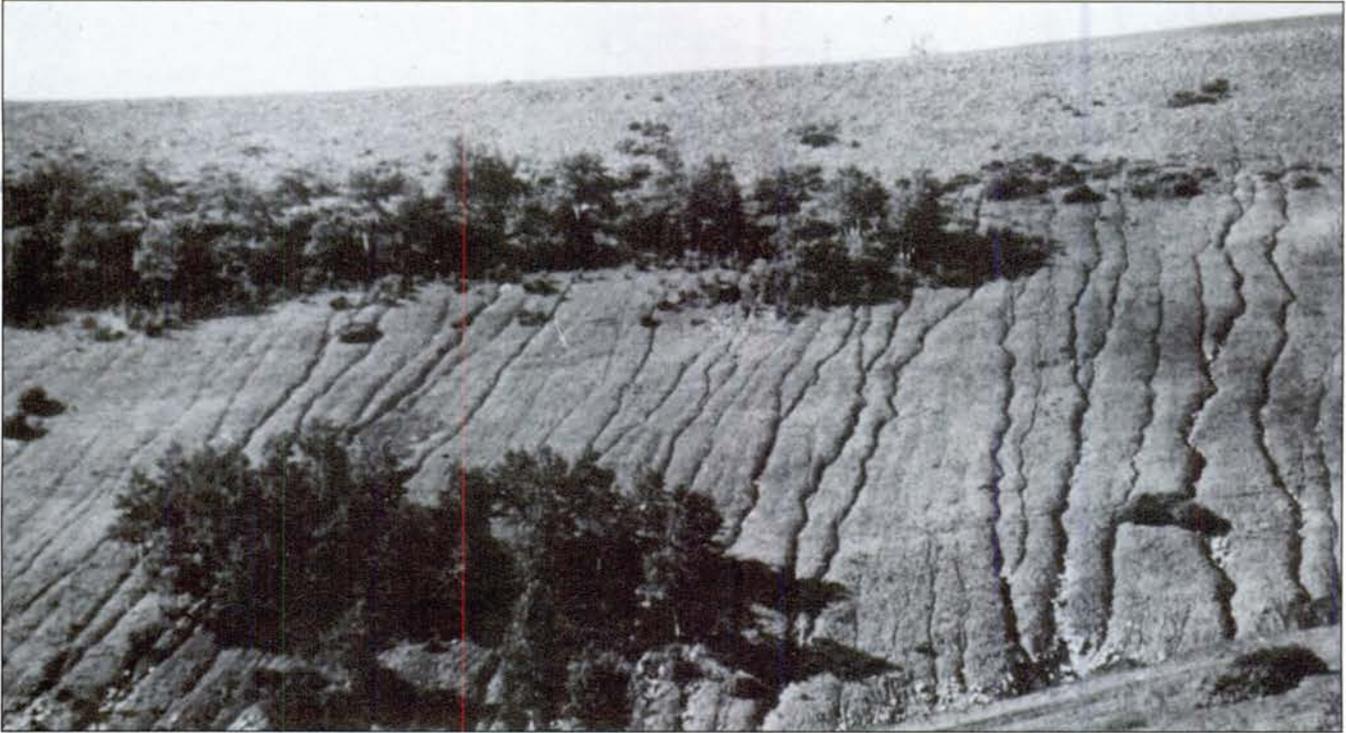
COMMENTS ON ORIGINAL PHOTO

Warner Bald Mesa Allotment. "South Hollow." View of gully above stock watering reservoir. The gully shows little sign of healing.

1992 SITE EVALUATION

The gully is still present. Considerable healing has taken place. Note the vegetation in the flattened bottom of the gully. There is some vegetation on the steep sides, but headcutting still occurs in the Right Fork. There are still remains of telephone poles in the background.



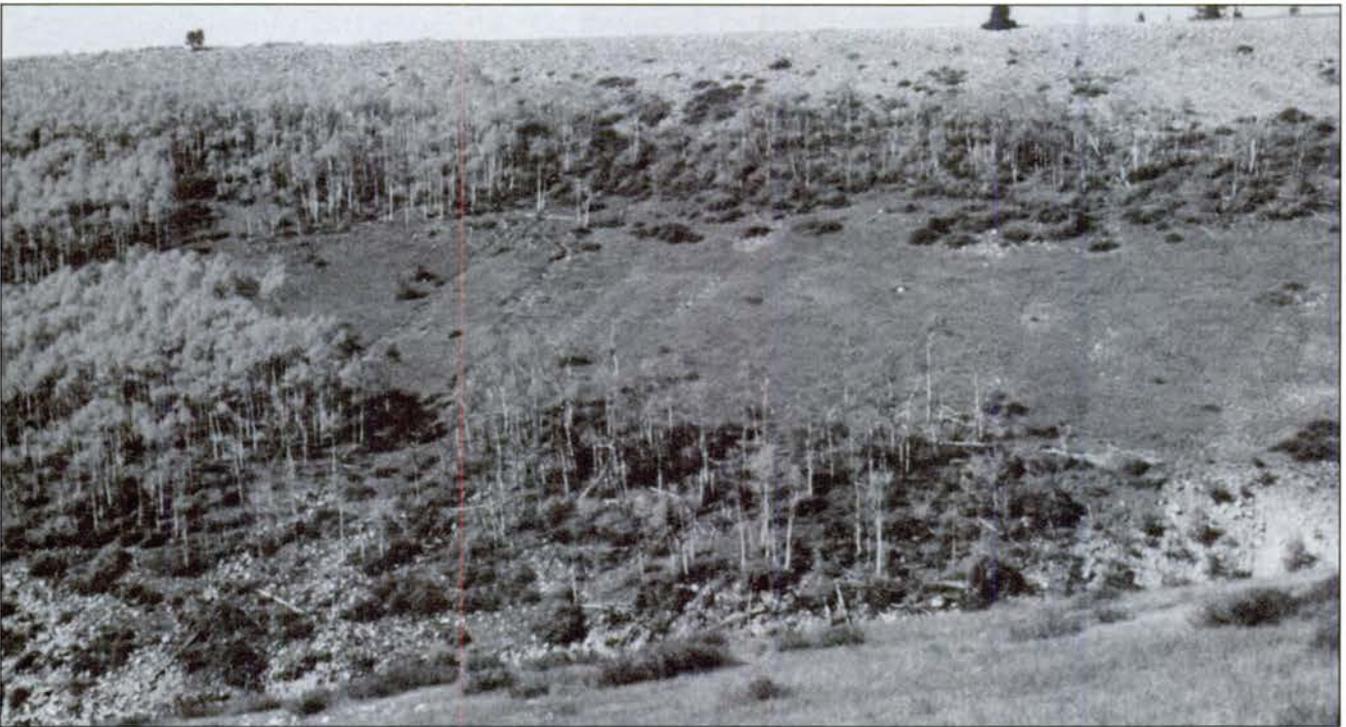


94983

Robert V. R. Reynolds

8-12-10

8 2 Y E A R S L A T E R



John Niebergall

9-21-92

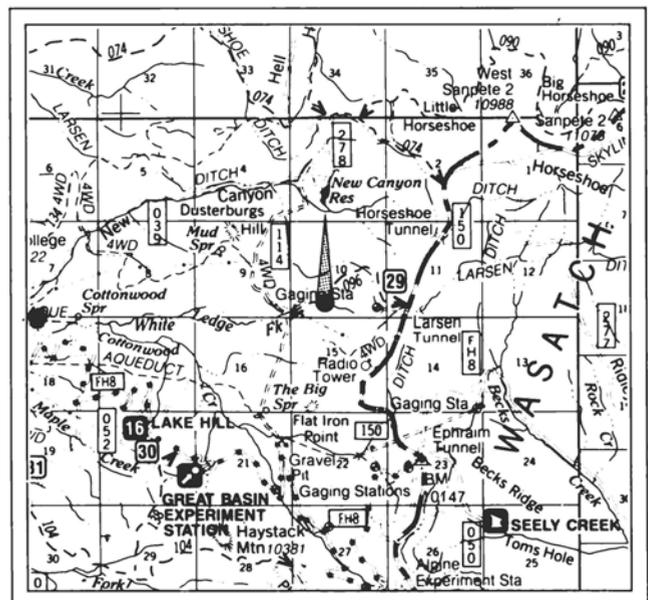
WHITE LEDGE FORK SANPETE R.D.

COMMENTS ON ORIGINAL PHOTO

Head of Left Fork Ephraim Canyon.
The 30° slope below the area is completely denuded by overgrazing. The area is eroded and unable to reclothe itself with groundcover. Note the limestone cap of the plateau.

1992 SITE EVALUATION

The area is now known as the White Ledge Fork. Gullies have healed with reminiscences still visible. Aspen have increased. Note how the side of the gully in the center right of the photo has progressed up the hill towards the shrub. This drainage has had large amounts of water flow through it since 1910. This is because the transmountain ditch that crosses the head of this drainage has broken many times. There is generally more vegetation (groundcover).





94982

Robert V. R. Reynolds

8-12-10

8 2 Y E A R S L A T E R



John Niebergall

9-21-92

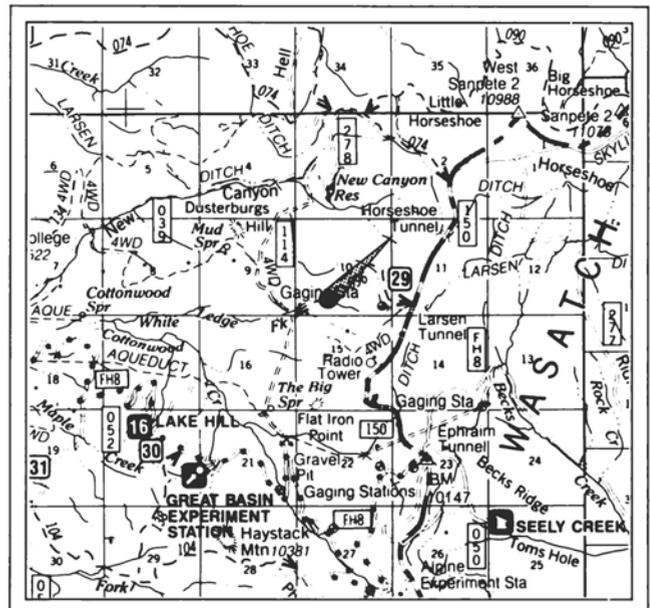
WHITE LEDGE FORK SANPETE R.D.

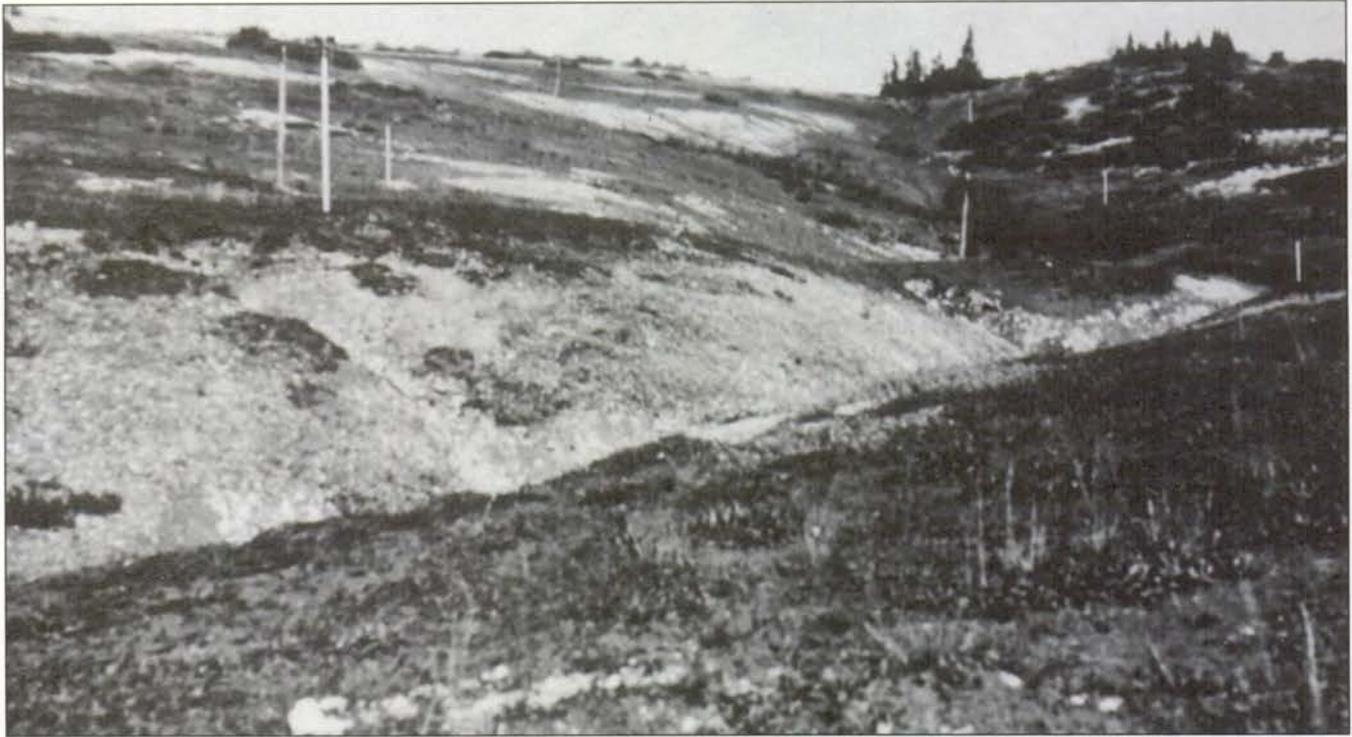
COMMENTS ON ORIGINAL PHOTO

Head of Left Fork Ephraim Canyon.
The 30° slope below the area is completely denuded by overgrazing. The area is eroded and unable to reclothe itself with groundcover. Note the limestone cap of the plateau.

1992 SITE EVALUATION

The area is now known as the White Ledge Fork. The gullies on the side hill have healed. The main gully has continued to increase in size because of the large amount of water which has flown through it. (See the evaluation for photo 94983.) Aspen stands have increased in size. Note that the rock (the one with a crack that is below the horse) is still there in 1992. There is generally more vegetation (groundcover).





207567

1915

77 YEARS LATER



John Niebergall

9-21-92

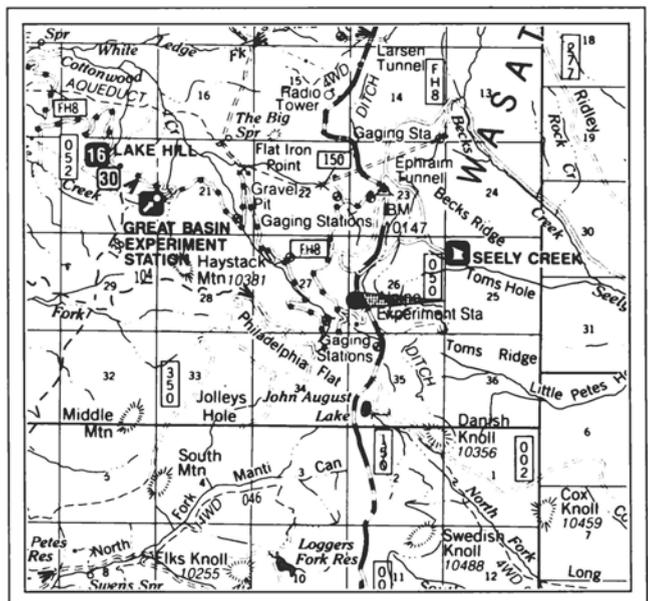
**WATERSHED A
EXPERIMENT STATION
SANPETE R.D.**

COMMENTS ON ORIGINAL PHOTO

None made.

1992 SITE EVALUATION

Increased vegetation is apparent. The bare slope into the draw (in the center of the photo) has much more groundcover.





223115

GWN

7-21-27

65 YEARS LATER



John Niebergall

7-21-92

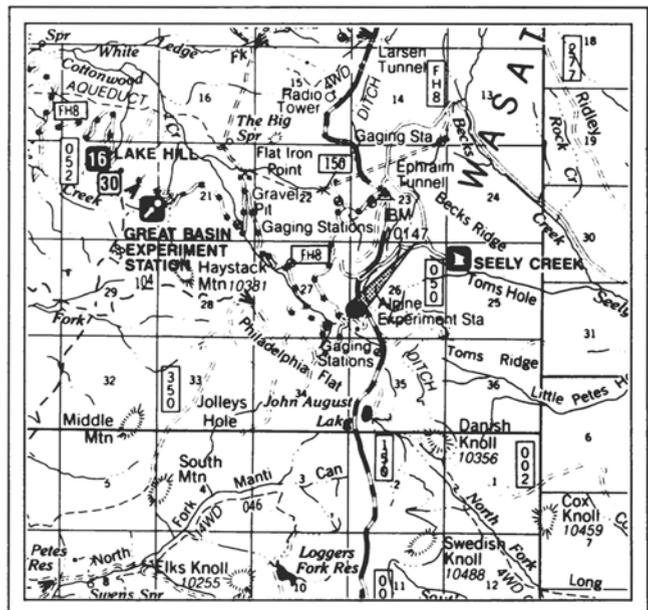
**WATERSHED A
EXPERIMENT STATION
SANPETE R.D.**

COMMENTS ON ORIGINAL PHOTO

None made.

1992 SITE EVALUATION

The gully has healed with quality vegetation. Most of the vegetation is now grass. Note the increase in gooseberry bushes on the skyline.

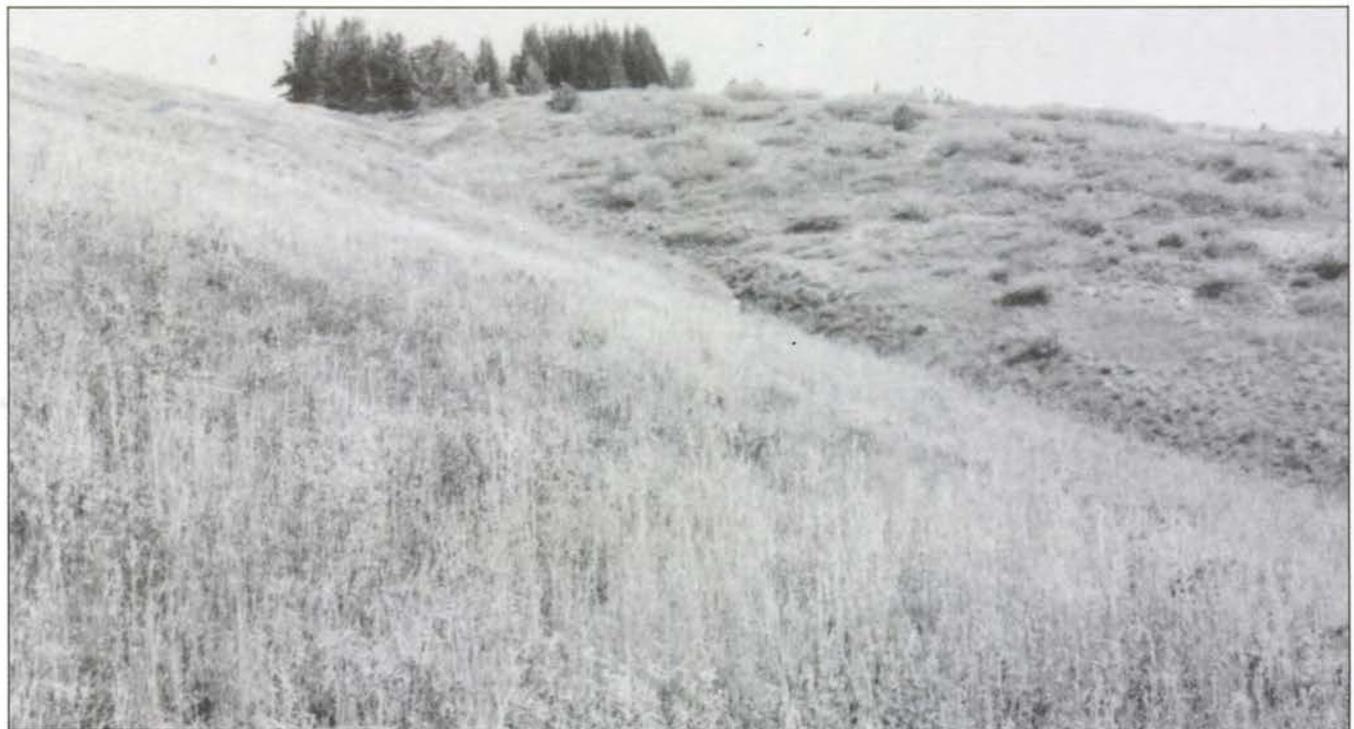




207574

1924

68 YEARS LATER



John Niebergall

9-21-92

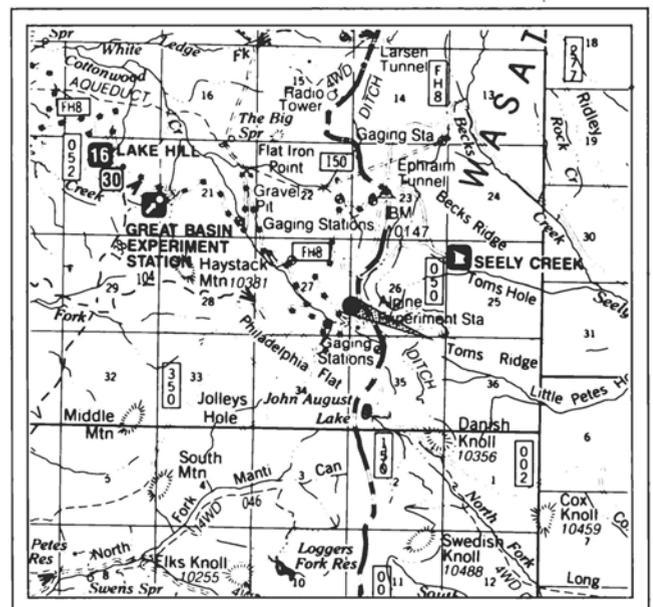
WATERSHED A EXPERIMENT STATION SANPETE R.D.

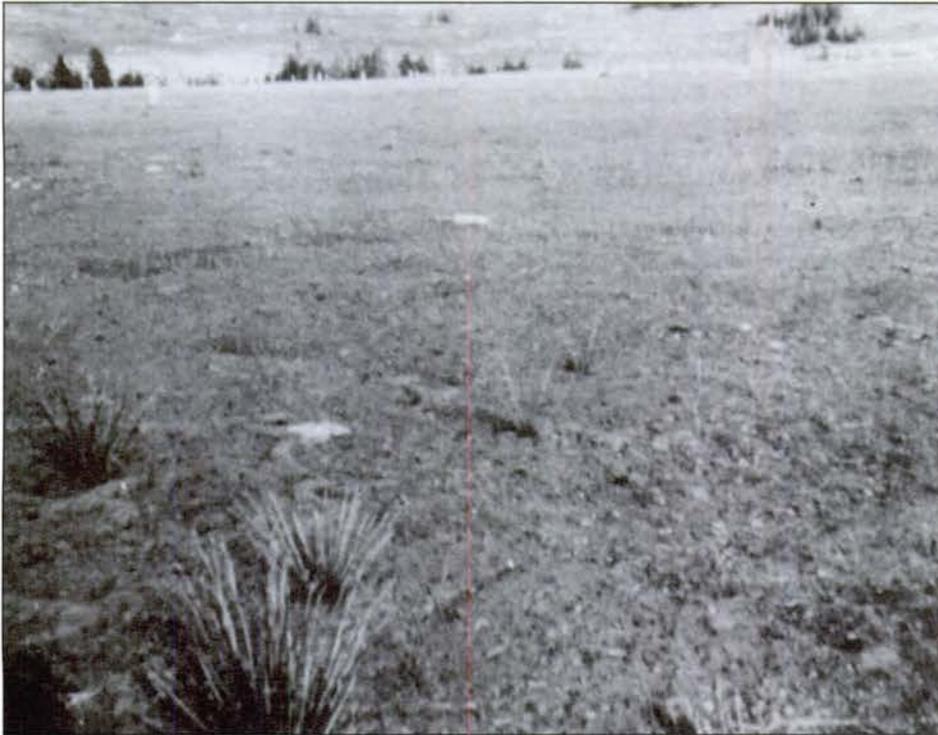
COMMENTS ON ORIGINAL PHOTO

Sweet sage is spreading over the gully and diverting the water. The man is standing in a gully up to his shoe tops.

1992 SITE EVALUATION

A great increase is seen in vegetation and groundcover. Most of the vegetation is grass. The number of current bushes on the far hill has decreased.





S16 - 57

Merlin R. Stock

9-19-57

35 YEARS LATER



John Niebergall

9-21-92

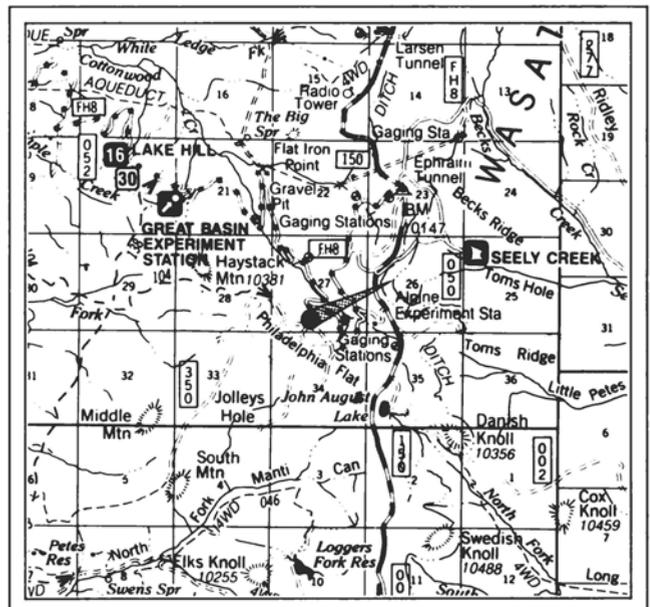
PHILADELPHIA FLAT SANPETE R.D.

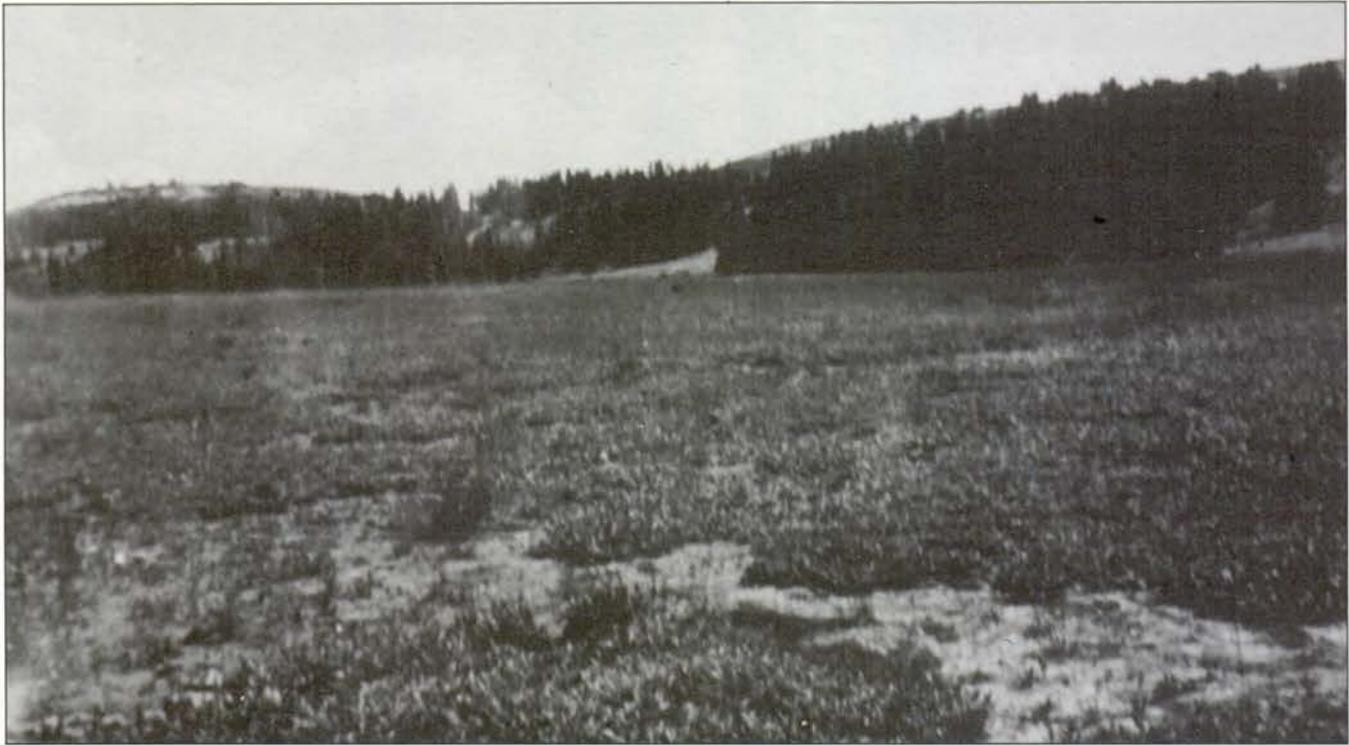
COMMENTS ON ORIGINAL PHOTO

South Ephraim C.U. Allotment.
Philadelphia Flat looking
northeasterly. Shows general range
condition resulting from too heavy
grazing and trampling.

1992 SITE EVALUATION

There is greatly improved
groundcover with more vegetation
apparent. Vegetation is mostly grasses
(brome, wheatgrass and stipa). Forbs
are primarily yarrow, geranium and
penstemon. The trees at the edge of
the flat are larger.





S16 - 53

Merlin R. Stock

8-25-53

39 YEARS LATER



John Niebergall

9-21-92

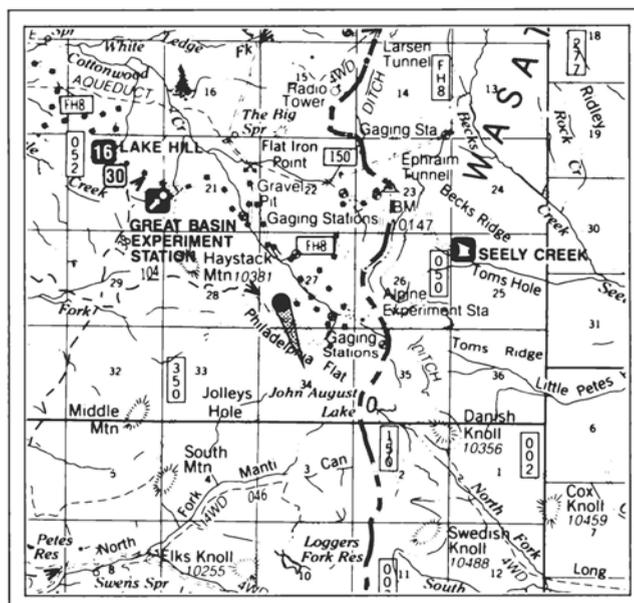
PHILADELPHIA FLAT SANPETE R.D.

COMMENTS ON ORIGINAL PHOTO

A general view of a 3-step transect
ML #307 on Philadelphia Flat of the
South Ephraim C.U. Allotment.
Species present in the area are
Letterman's needlegrass, intermedia
wheatgrass, penstemon, pigweed,
yarrow, tarweed, oniongrass, wild
carrot, sedge and dandelion.

1992 SITE EVALUATION

The original photo indicates an
abundance of penstemon. Grasses are
now much more apparent. Vegetation
consists of wheatgrass, stipa, brome,
penstemon and yarrow. No dandelion
or tarweed are present. Although
there is more grass, overall
groundcover may be less.

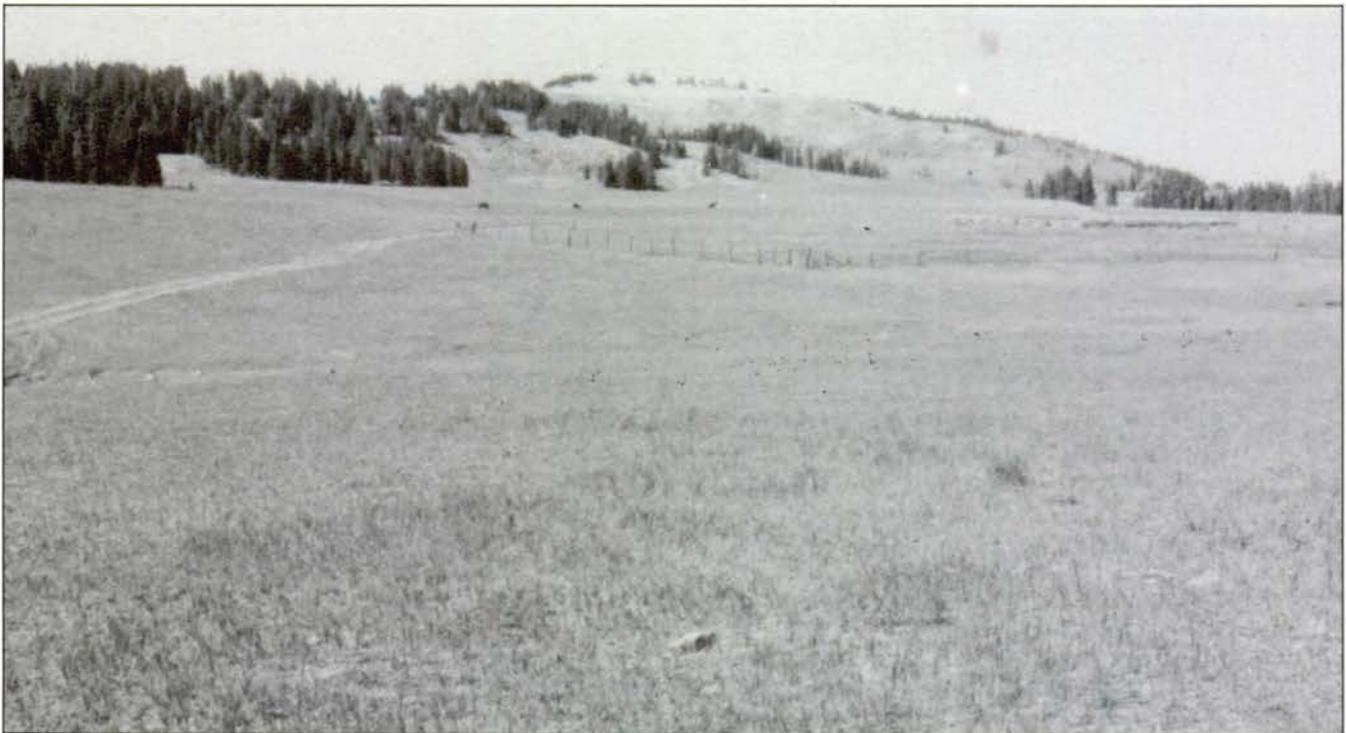




177885

1923

69 YEARS LATER



John Niebergall

9-21-92

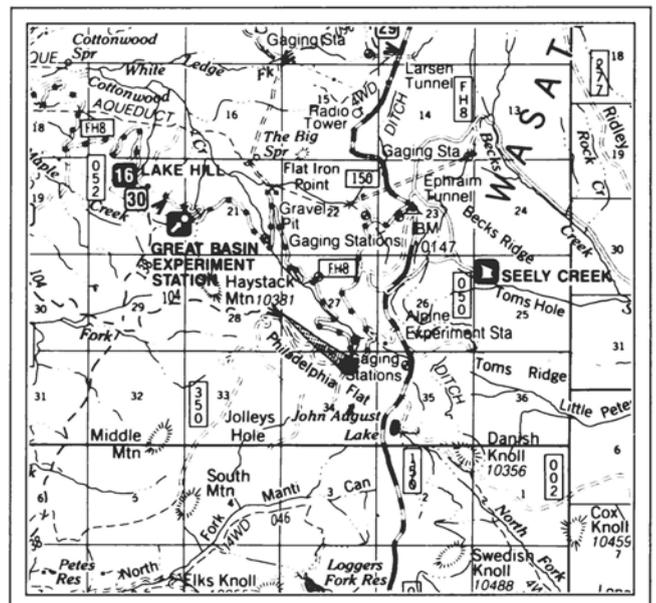
PHILADELPHIA FLAT SANPETE R.D.

COMMENTS ON ORIGINAL PHOTO

There were no comments on the original photo, only the date of 1923.

1992 SITE EVALUATION

The original photo shows a heavy stand of forbs, possibly yarrow and penstemon. Vegetation is now smooth brome with some yarrow and geranium. In the 1992 photo from left to center of the photo is the remains of a gully that has healed. The gully does not show up in the 1923 photo. Some cattle are in the background.





D20 - 57

J. Cal Downing

8-28-57

35 YEARS LATER



John Niebergall

9-12-92

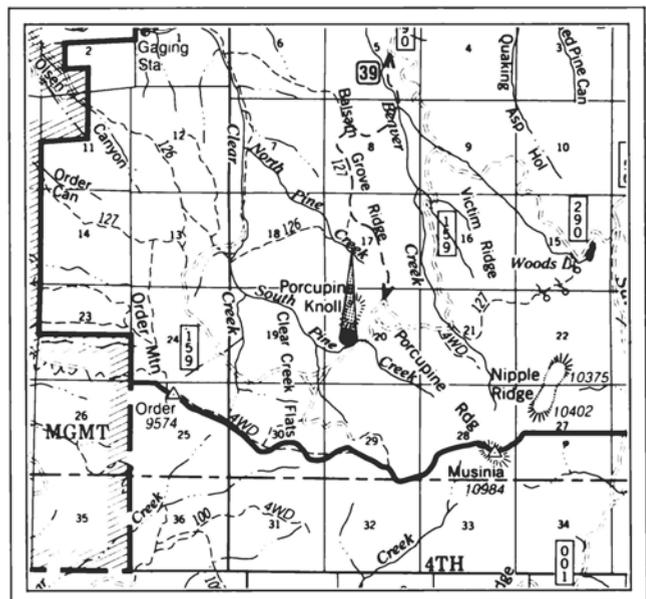
CLEAR CREEK FLAT AREA SANPETE R.D.

COMMENTS ON ORIGINAL PHOTO

This 12-mile common use allotment area is dominated by tarweed.

1992 SITE EVALUATION

Tarweed is no longer found at the photo point. There is more vegetation, primarily poa grass. The aspen stand on the knob in the center background is maturing and thinning. It is possible to now see through the stand. The gullies appear to be healing. Notice the aspen snags on the right skyline of the 1957 photo. They no longer exist. Shrubs by the #3 on the 1957 photo are no longer there.





H15 - 57

John Hougaard

8-14-57

35 YEARS LATER



John Niebergall

9-25-92

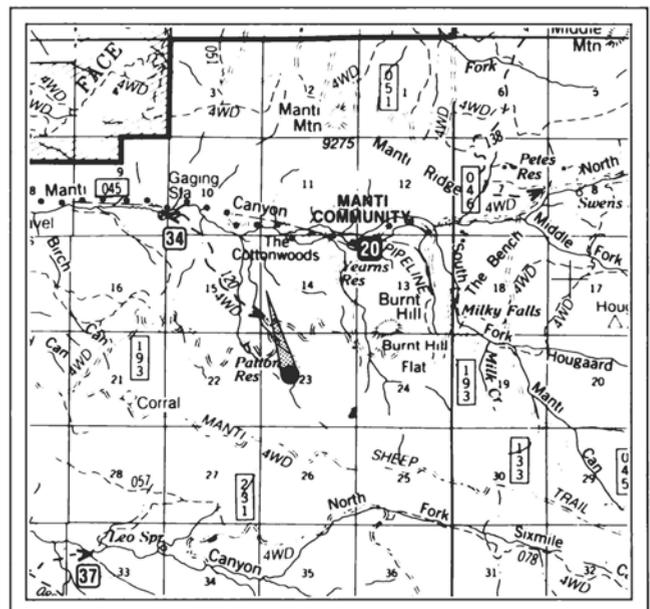
BURNT HILL FLATS SANPETE R.D.

COMMENTS ON ORIGINAL PHOTO

This photo was taken on the hoop weight transect line on the Burnt Hill Flats before reseeding. Transects run through rock, weed, and brush on the flat.

1992 SITE EVALUATION

There is considerably more grass and groundcover. Note the rocky white knob in the left center of the 1957 photo. It is now nearly covered with vegetation. The same is true for the drainage—the white line across the 1957 photo. Note the rock in the lower right edge of the two photos. Aspen are no longer there. Aspen patches in the background have thinned. Note the bare ground in the forefront of the 1957 photo.





1922

70 YEARS LATER



John Niebergall

8-25-92

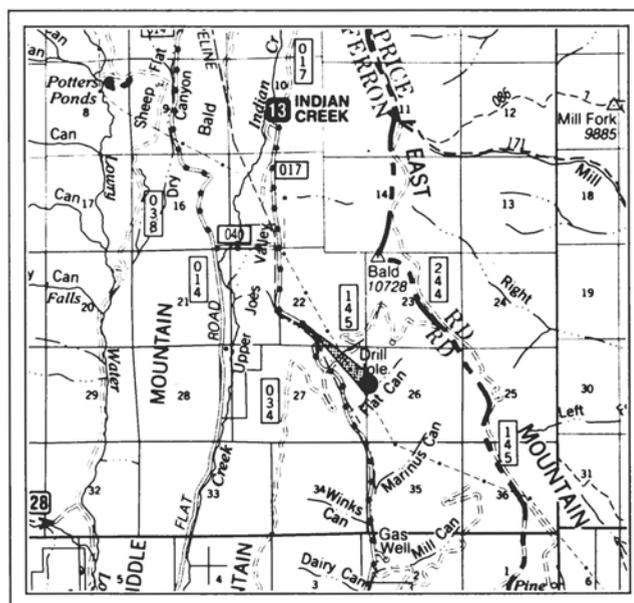
FLAT CANYON FERRON R.D.

COMMENTS ON ORIGINAL PHOTO

Poor salting. Head Cottonwood Canyon. A salt trough is 100 feet from a developed spring.

1992 SITE EVALUATION

The 1992 photo shows much bare ground and heavy use. The water trough is still in the same location. Groundcover has increased. Sagebrush and snowberry have come back into the flat. The grass is primarily poa. Aspen are creeping down the slope in the background.





E30 - 59

Harold Edwards

8-59

33 YEARS LATER



John Niebergall

9-25-92

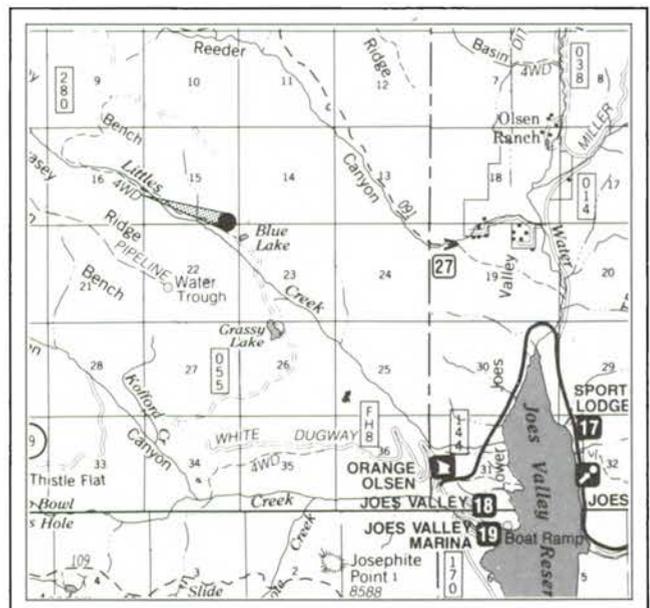
LITTLES CREEK FERRON R.D.

COMMENTS ON ORIGINAL PHOTO

View of old Jewkes-Van Buren
sawmill site in the Littles Creek.

1992 SITE EVALUATION

Increased vegetative groundcover is
apparent with less rock showing on
the hill in the background. Gophers
are still operating on the flat. On the
left, aspen stands have come on the
flat.





W31 - 54

George C. Whitlock

10-6-54

38 YEARS LATER



John Niebergall

8-28-92

SOUTH OF FLAGSTAFF PEAK FERRON R.D.

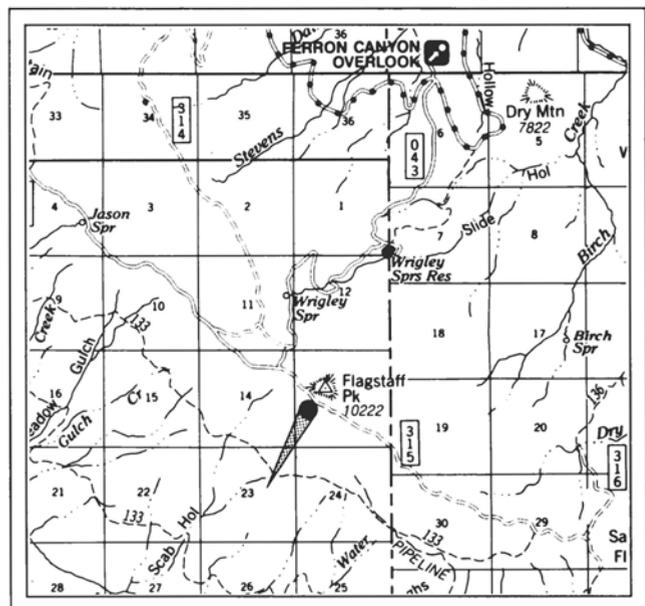
COMMENTS ON ORIGINAL PHOTO

This study enclosure was selected in 1952 from terrace broadcast seeds the fall of 1951 on Flagstaff Mountain. Growth height is over 36 inches and vacant spots are filling in with seedlings from older plants.

(Editors Note: broadcast seeded, 1951; enclosure built, 1952; photo, 1954.)

1992 SITE EVALUATION

The enclosure is no longer effective so cattle have grazed the area for a number of years. Smooth brome still dominates the site, but vigor is poor. Much more conifer is evident and aspen have decreased. The snowberry bush in the left foreground of the 1954 photo is gone, but considerable snowberry can be seen in front of the tall tree near the center of the photo.





02 - 52

LeGrande Olsen

7-16-52

40 YEARS LATER



John Niebergall

9-1-92

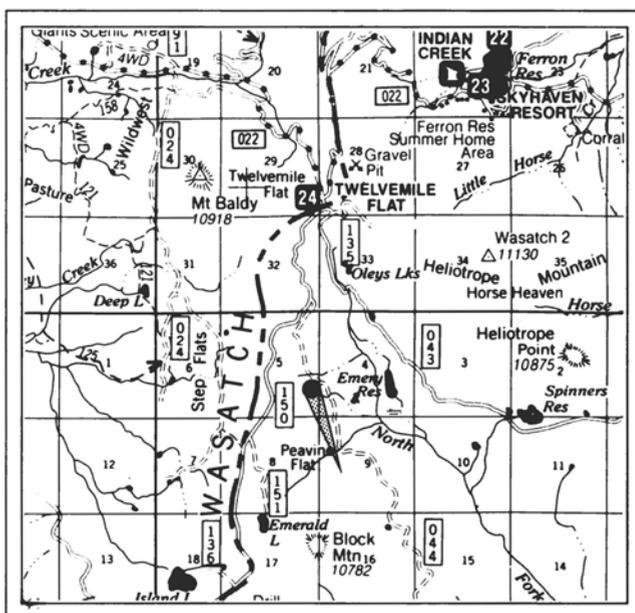
PEAVINE FLAT FERRON R.D.

COMMENTS ON ORIGINAL PHOTO

Shows general view of 3-step transect, ML-101, taken on Peavine Flat on the Emery C&H Allotment.

1992 SITE EVALUATION

Sheep have grazed this area this year. Generally there is more groundcover and more vegetation, primarily grasses—mountain brome and wheatgrass. Note the white ridge by the road in the upper right corner of the 1952 photo. It is less evident now because of additional vegetation. The elderberry patches have not changed much over the years. Note the increase in the conifers on the far hillside.





L4 - 58

Harold E. Laird

8-27-58

34 YEARS LATER



John Niebergall

9-14-92

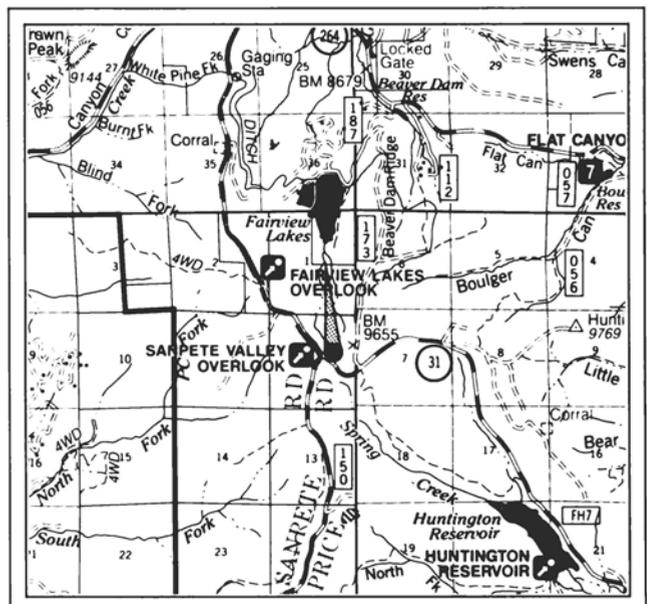
SOUTH OF FAIRVIEW LAKES PRICE R.D.

COMMENTS ON ORIGINAL PHOTO

A general view of the area above Fairview Lakes on the Beaver Dams Ridge S&G Allotment which has been grazed by sheep. The small circular clumps of *Artemisia discolor* seem to be increasing on the entire area. The area is extremely bare. Cover on the area consists of tarweed, Jacob's ladder and a few patches of red elderberry.

1992 SITE EVALUATION

Much of the elderberry has died out on this site. Groundcover appears better—mostly grasses. *Veratrum* has increased.





8-27-1916

(Not sure 1916 is correct year)

76 YEARS LATER



John Niebergall

9-14-92

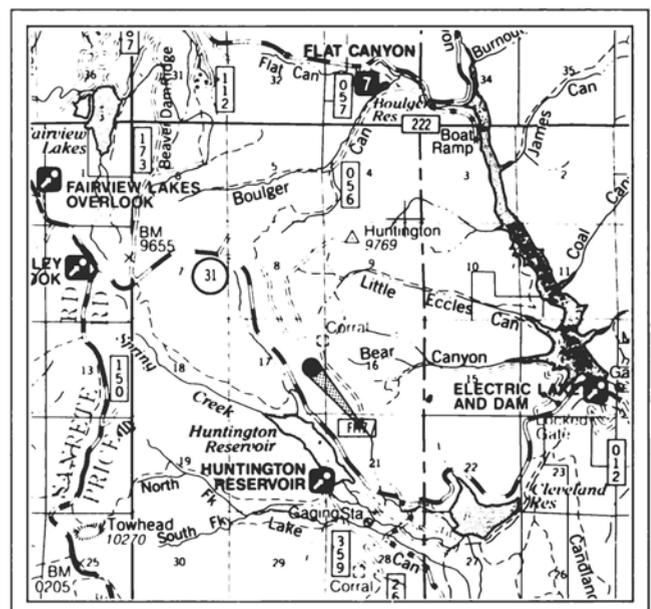
RIDGE BETWEEN BEAR AND SPRING CANYON PRICE R.D.

COMMENTS ON ORIGINAL PHOTO

This is a low ridge between Bear and Spring Canyons. It is almost denuded by continued heavy grazing.

1992 SITE EVALUATION

Cannot identify vegetation in the foreground of the 1916 photo. It could be elderberry. Western cone flower now grows in the foreground. The ridge now has a very good groundcover of grasses which include stipa, wheatgrass and poa. Sagebrush now grows on the top of the ridge with a good grass understory. Note the hill in the background to the right of the center. The 1916 photo shows gullies or trails which are no longer evident.





181006

1922?

70 YEARS LATER



John Niebergall

9-2-92



T7 - 53

Julian R. Thomas

7-21-53

39 YEARS LATER



John Niebergall

8-7-92

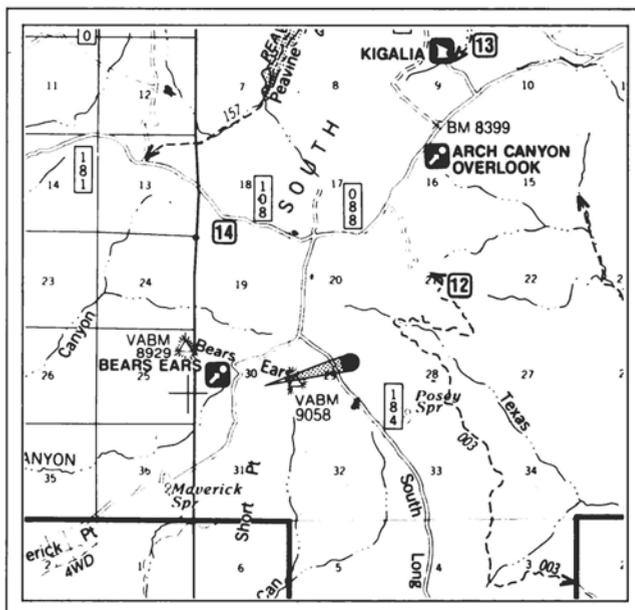
BEARS EARS MONTICELLO R.D.

COMMENTS ON ORIGINAL PHOTO

Bears Ears Allotment. Transect
No. ML707.

1992 SITE EVALUATION

There is more groundcover, mostly
smooth brome. Note the great
increase of conifer trees on the knob
in the background. The gully that
had formed across the center of the
photo is now mostly healed with
grass.





T2 - 56

Julian R. Thomas

1956

36 YEARS LATER



John Niebergall

8-7-92

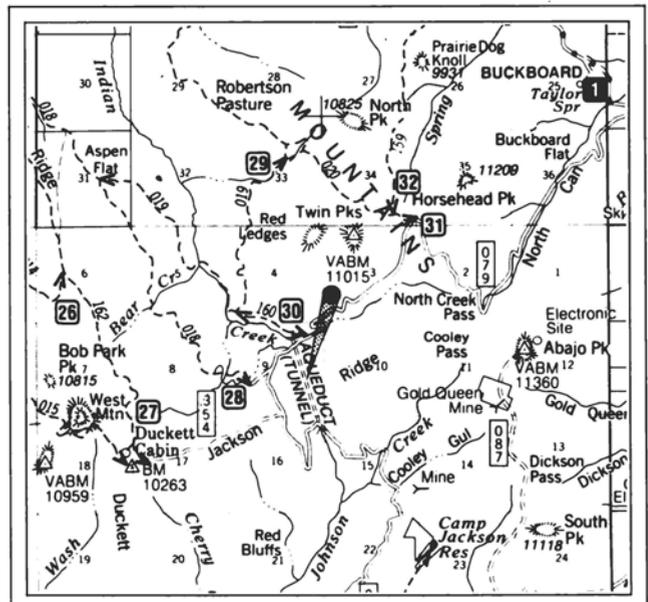
HEAD OF INDIAN CREEK MONTICELLO R.D.

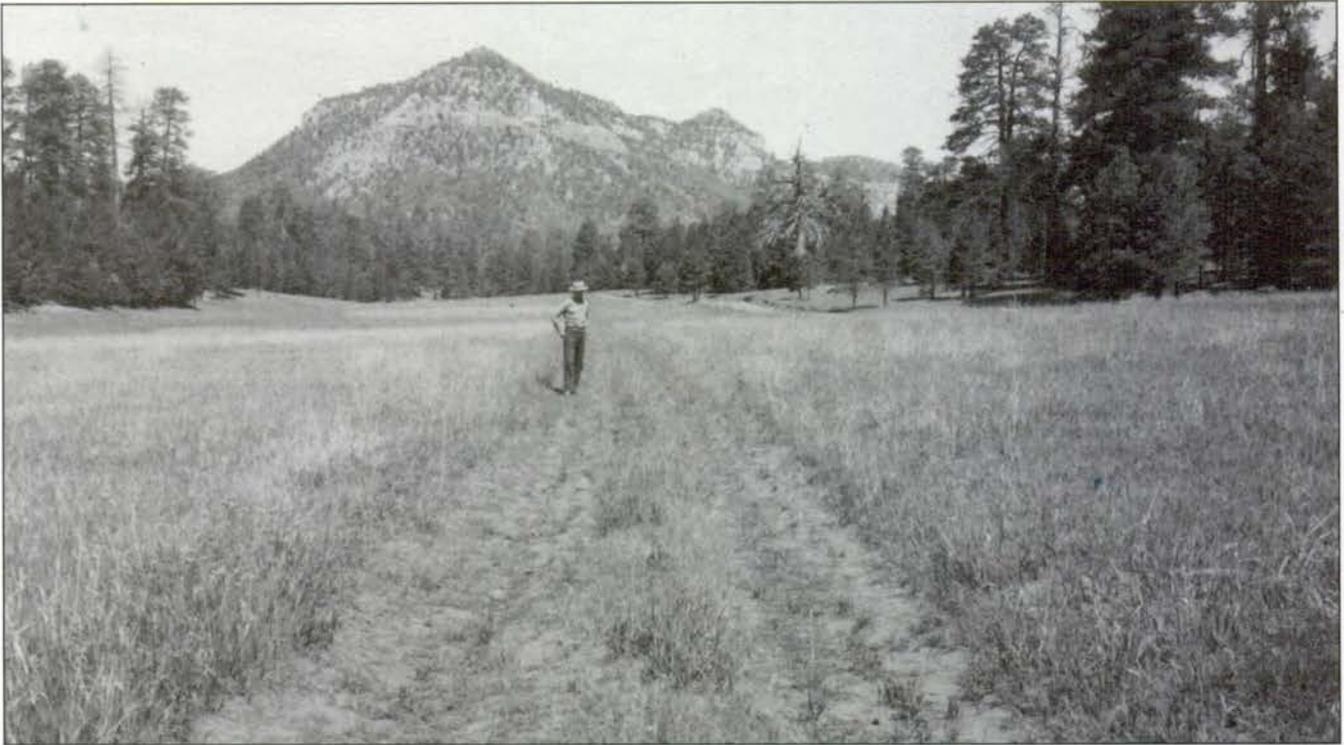
COMMENTS ON ORIGINAL PHOTO

Blanding watershed.

1992 SITE EVALUATION

The area has been contour trenched.
There is much more groundcover,
mostly smooth brome, wheatgrass
and orchard grass with some aster,
snowberry and lupine. Conifer trees
have increased in the right center
edge of the photo.



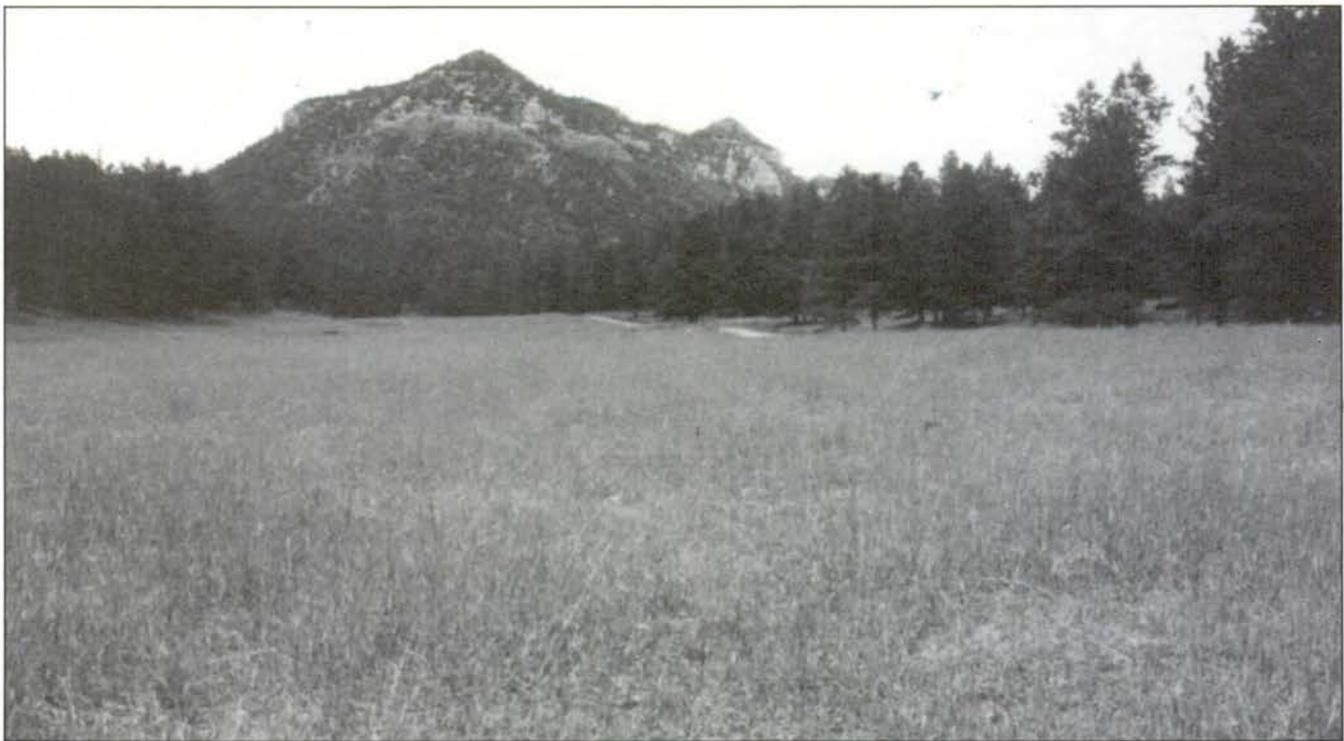


T-1 - 59

Robert Thompson

8-14-59

33 YEARS LATER



John Niebergall

8-7-92

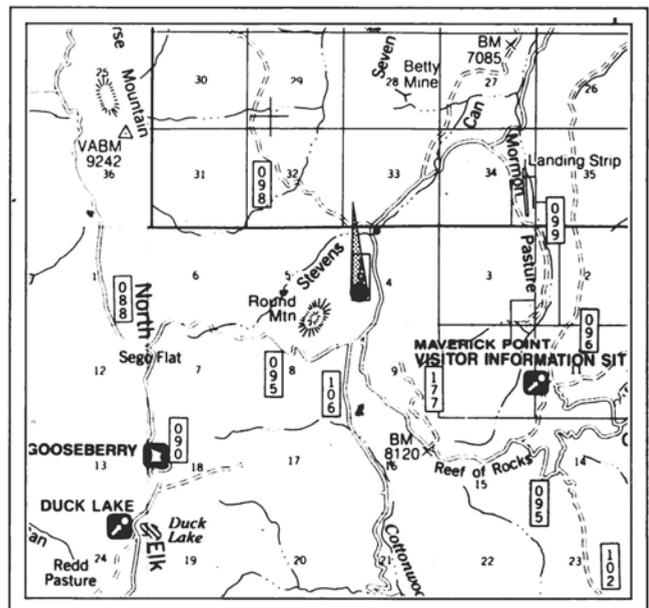
ROUND MOUNTAIN MONTICELLO R.D.

COMMENTS ON ORIGINAL PHOTO

Cottonwood Allotment. Round Mountain seeding is showing a lack of growth and heavy utilization.

1992 SITE EVALUATION

The area has been grazed by cattle this year. The old road in the center of the photo is nearly covered by vegetation (smooth brome). Note the timber stands along the edge of the flat on the earlier photo. The large, older trees and snags have been removed by logging.





S13 - 61

John Stithem

5-30-61

31 YEARS LATER



John Niebergall

7-18-92

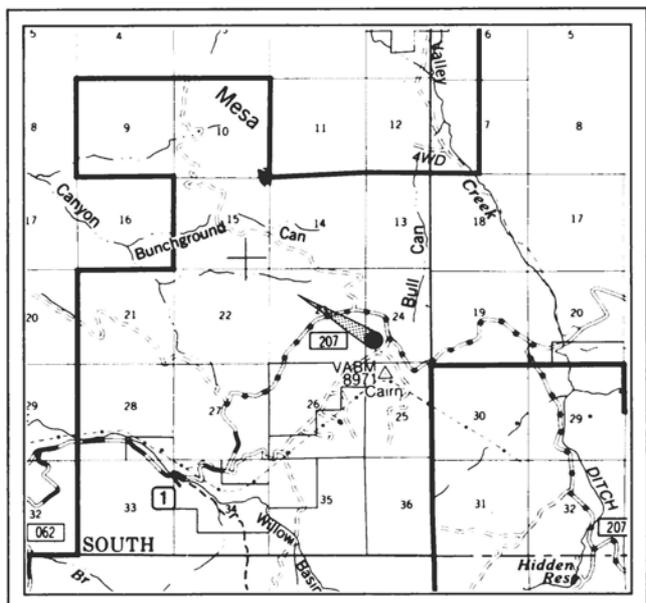
HEAD OF FISHER MESA MOAB R.D.

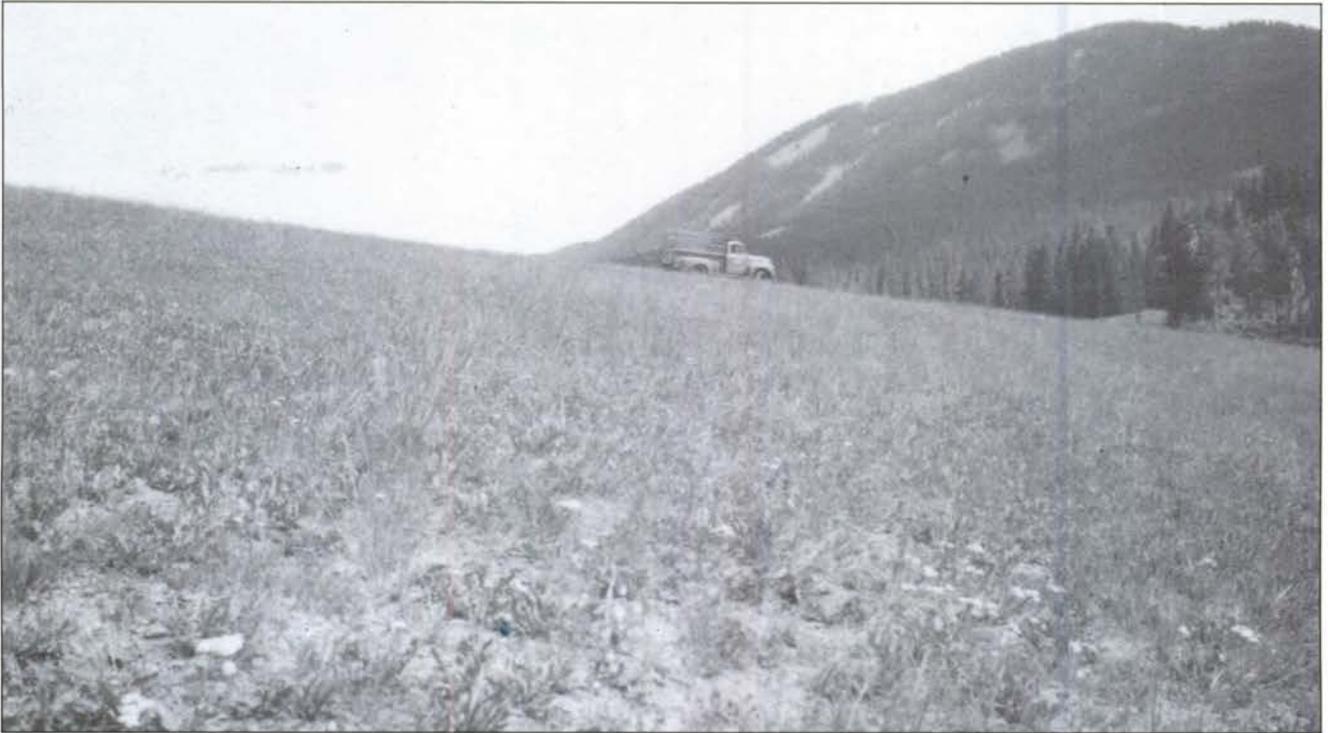
COMMENTS ON ORIGINAL PHOTO

This is a general view of typical groundcover (saged type) at the head of Fisher Mesa.

1992 SITE EVALUATION

A close look at the two photos shows very little change over the years. The area is located on a wind-swept ridgetop.





T1 - 52

Bert Tucker

8-5-52

40 YEARS LATER



John Niebergall

7-16-92

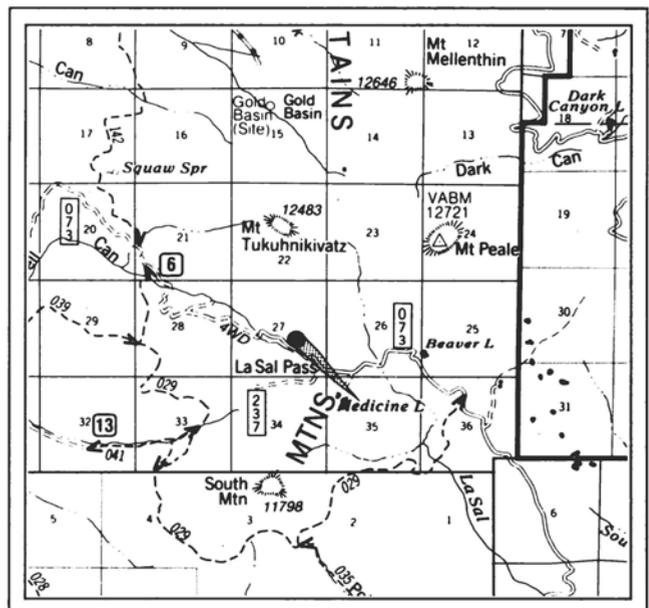
LA SAL PASS MOAB R.D.

COMMENTS ON ORIGINAL PHOTO

This is a general view of a study transect. La Sal Pass, La Sal common use allotment.

1992 SITE EVALUATION

There appears to be more vegetation and groundcover; less bare soil is showing. There is a good mixture of grasses and forbs such as yarrow, brome and vetch.





H18 - 58

John Hougard

8-26-58

3 4 Y E A R S L A T E R



John Niebergall

9-12-92

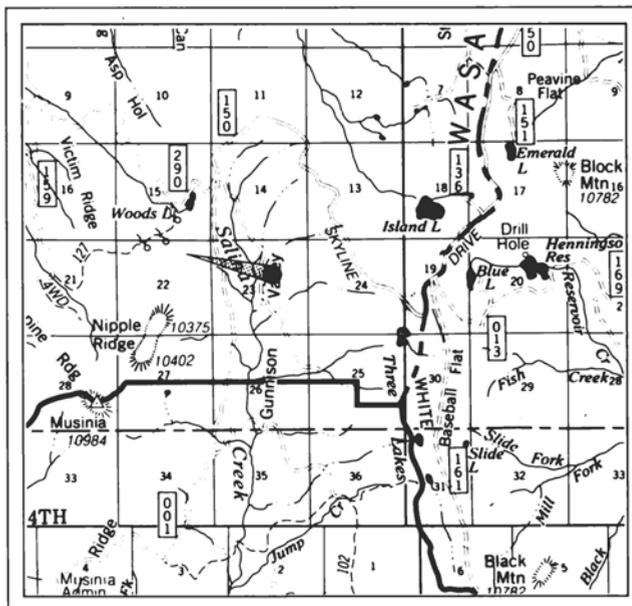
GUNNISON VALLEY SANPETE R.D.

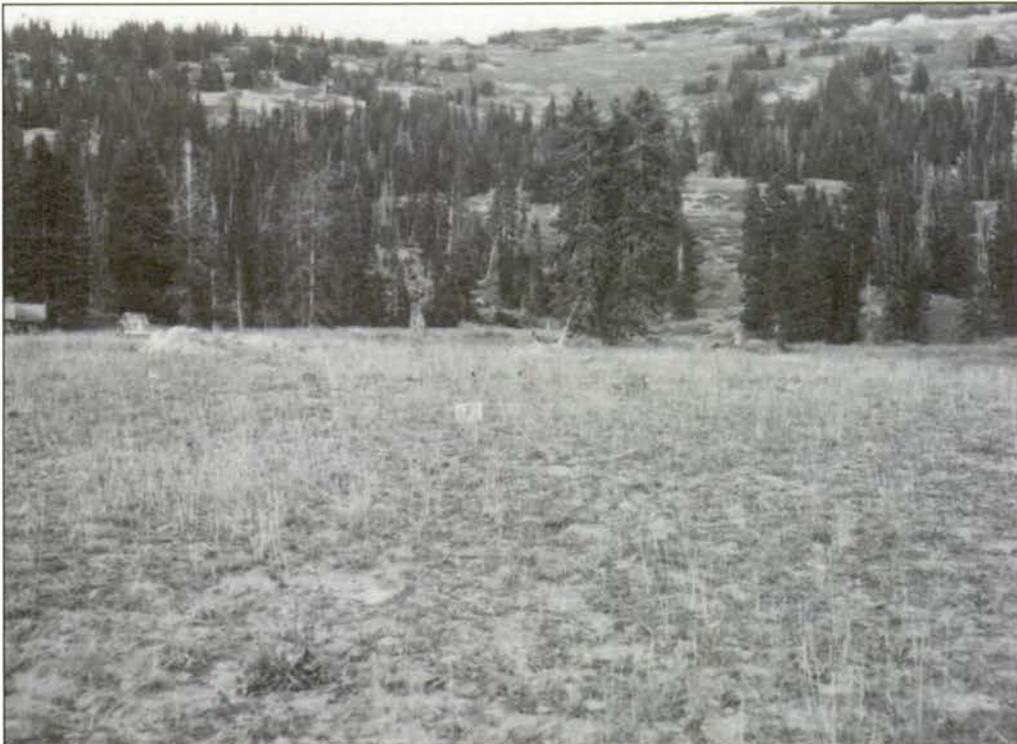
COMMENTS ON ORIGINAL PHOTO

This is a panoramic view of Gunnison Valley (series of six photos).

1992 SITE EVALUATION

More vegetation is evident in both the foreground and the background, with less rock and white spots showing. Note that the white drainages in the background are not as apparent as in the original photo.



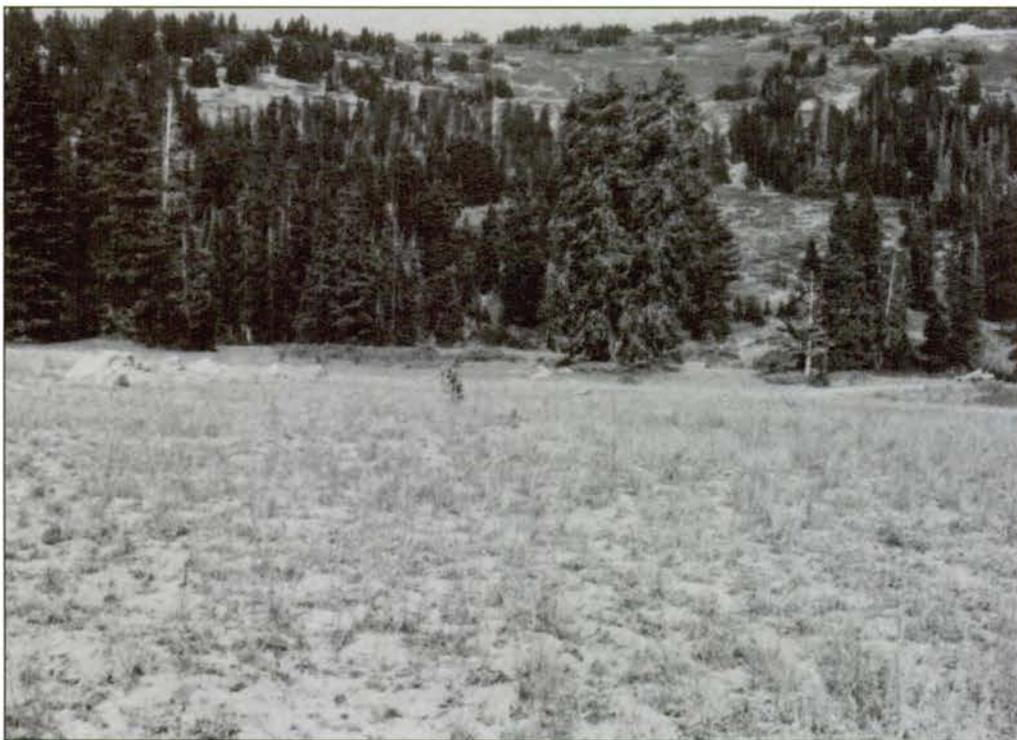


J4 - 60

Hyrum Johnson

9-20-60

3 2 Y E A R S L A T E R



John Niebergall

8-28-92

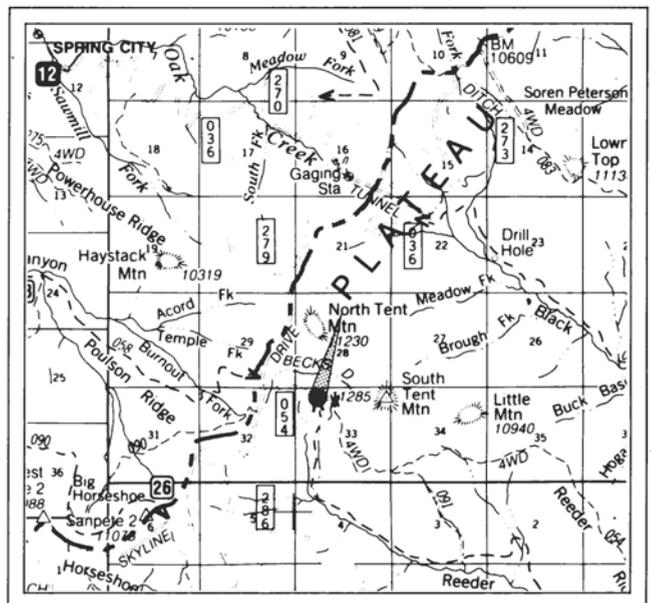
HEAD OF REEDER CANYON FERRON R.D.

COMMENTS ON ORIGINAL PHOTO

Reeder Canyon Parker 3-step. Photo #16. Looks east from photo plot. *Rudbeckia* seems to have decreased. *Artemisia* is probably a major component of the vegetal cover.

1992 SITE EVALUATION

Not much change has occurred over the years. There is still considerable bare ground with a scattering of vegetation. There appears to be a new gully high in the opening on the ridge in the center of the photo.





177886

7-24-23

69 YEARS LATER



John Niebergall

9-9-92

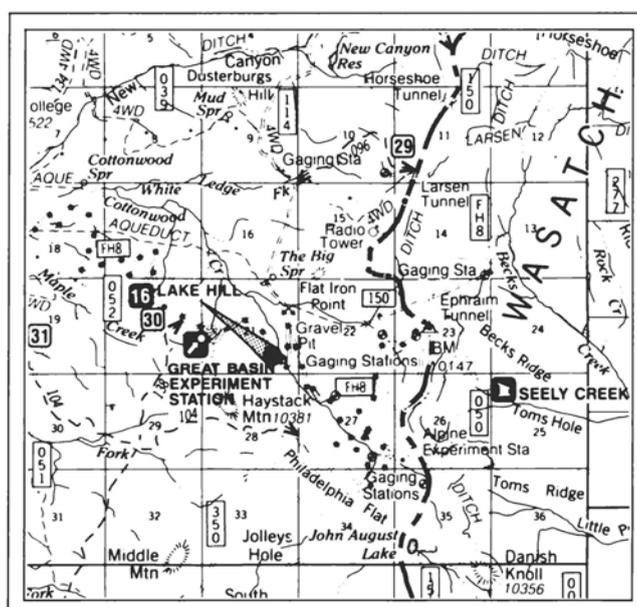
BLUEBELL FLAT SANPETE R.D.

COMMENTS ON ORIGINAL PHOTO

Bluebell Flat is above the Experiment Station along the Orangeville-Ephraim road. The Flat had more color in July than an alfalfa field in bloom.

1992 SITE EVALUATION

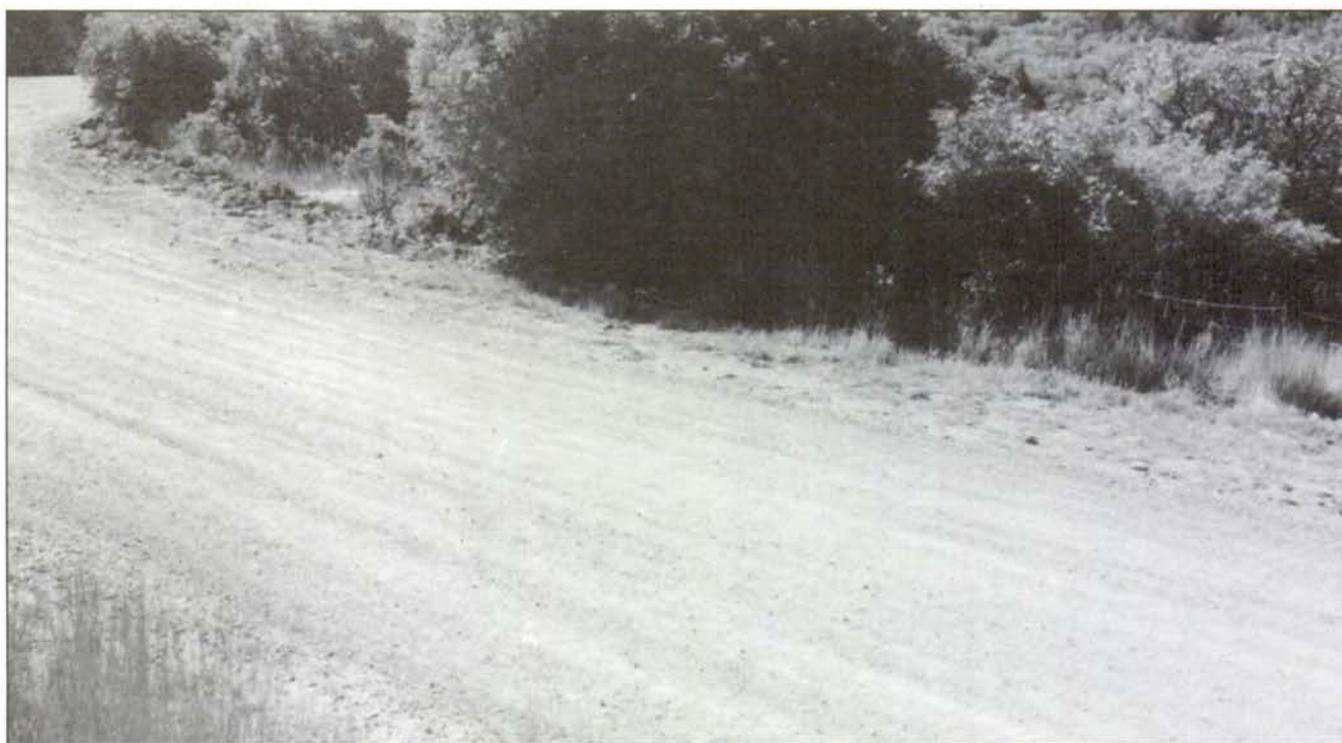
The largest change, besides the vehicles, is in the trees. Note the increase in conifer trees both in the background and to the right of the road. Aspen are being replaced by conifer.





6-25-59

33 YEARS LATER



John Niebergall

9-25-92

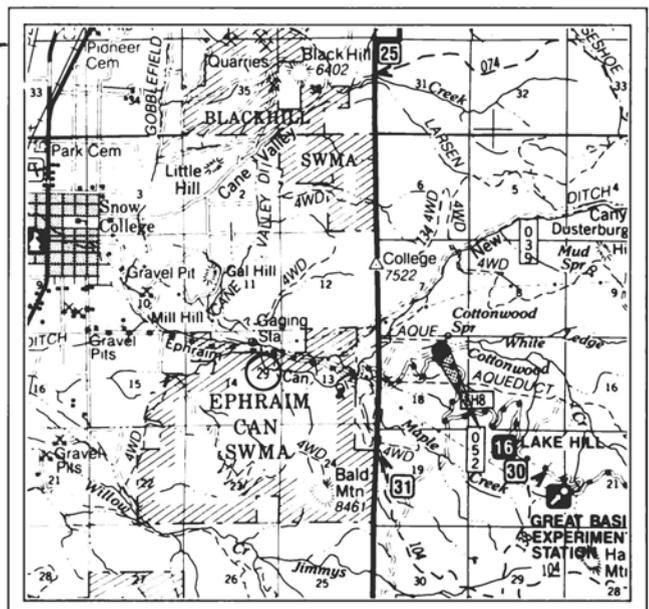
DAHL'S DUGWAY SANPETE R.D.

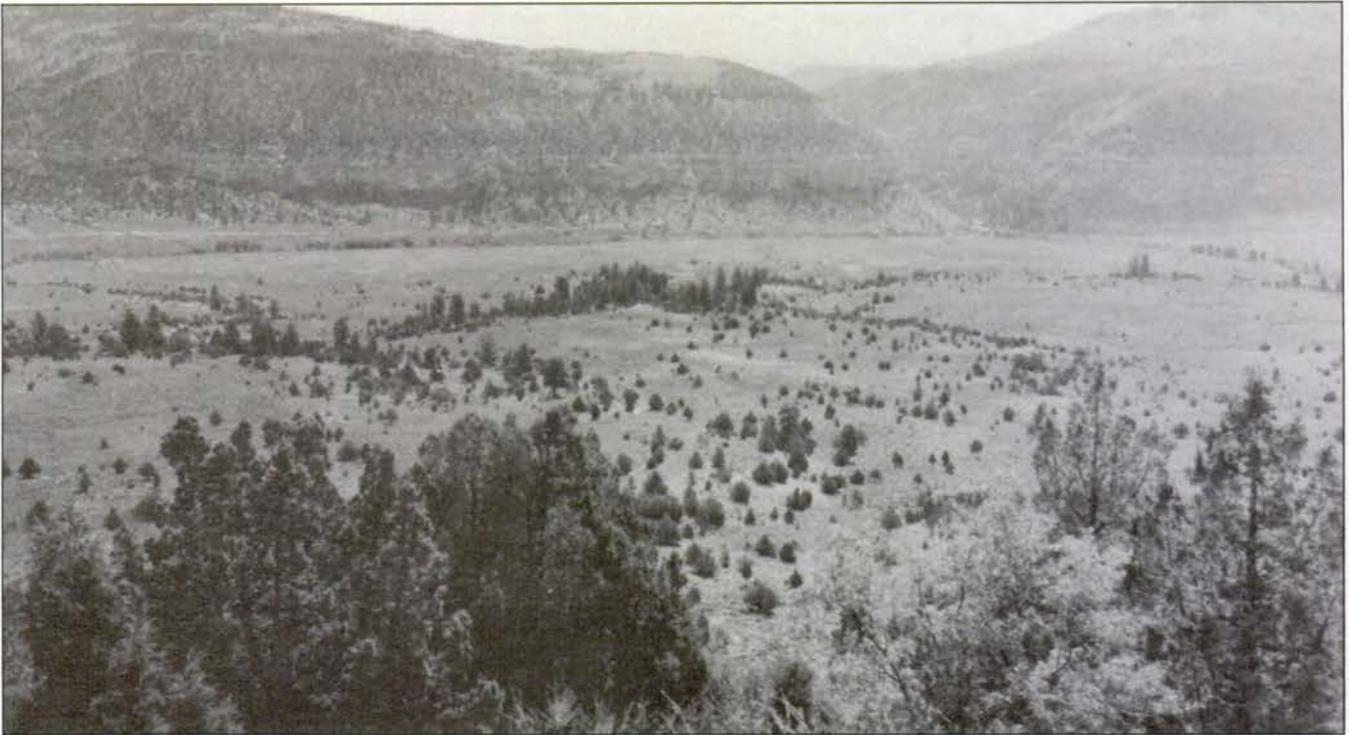
COMMENTS ON ORIGINAL PHOTO

A spring burn in oak brush at Dahl's Dugway. Made in April 1959. Make follow-up pictures.

1992 SITE EVALUATION

Oak brush again dominates the site. Cannot see any effects of the burn 33 years ago. Oak brush is a hardy sprouter.





8-26-54

38 YEARS LATER



John Niebergall

8-28-92

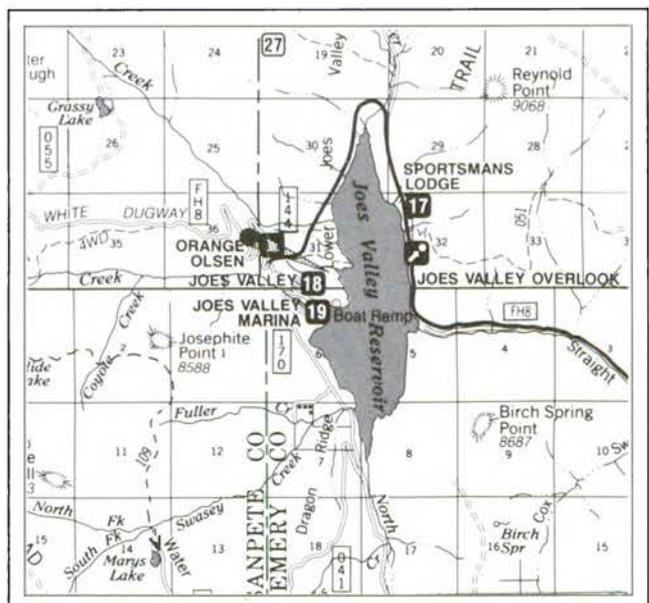
JOE'S VALLEY FERRON R.D.

COMMENTS ON ORIGINAL PHOTO

No comments given.

1992 SITE EVALUATION

Since the original photo, Joe's Valley Dam has been completed. The flats have had a considerable pinyon-juniper invasion. Note the area around the Orange Olsen Guard Station in the left center of the photo.





34250

A. F. Potter

10-8-02

90 YEARS LATER



John Niebergall

9-1-92

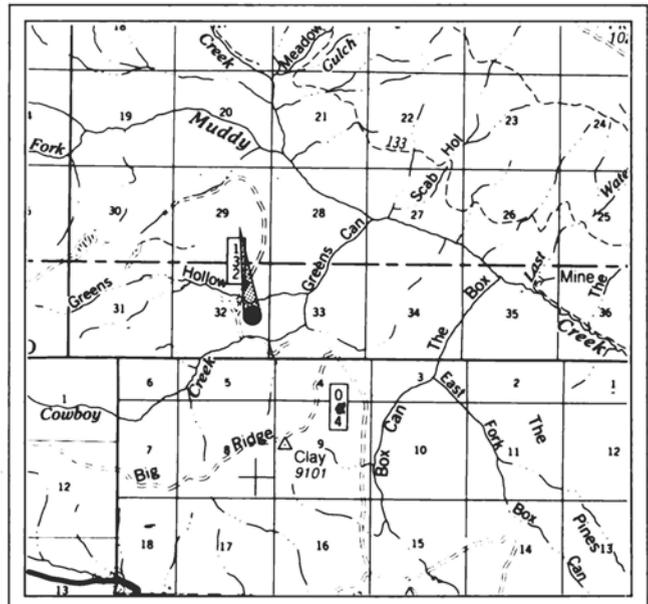
GREENS HOLLOW FERRON R.D.

COMMENTS ON ORIGINAL PHOTO

Muddy Creek Basin. Sheep grazing
in Sagebrush Flat.

1992 SITE EVALUATION

Not a lot of change has taken place. Conifer trees have replaced aspen in the canyon. The round-topped ponderosa pine (in the left center of the 1902 photo) is still there. It also appears that the serviceberry bush (on the left side of this photo) was present in 1902. It is difficult to see because the leaves have fallen. Also, there is more pinyon-juniper on the hills to the right and the left.





34248

A. F. Potter

10-8-02

90 YEARS LATER



John Niebergall

9-2-92

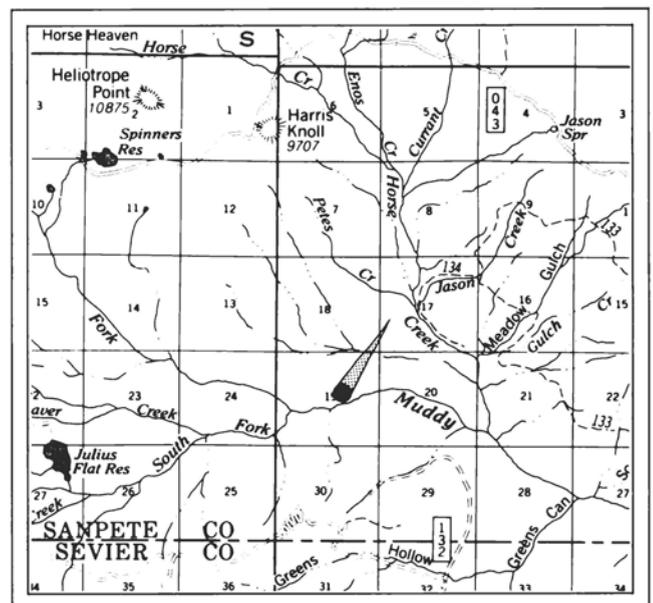
MUDDY CREEK BASIN FERRON R.D.

COMMENTS ON ORIGINAL PHOTO

Muddy Creek Basin.

1992 SITE EVALUATION

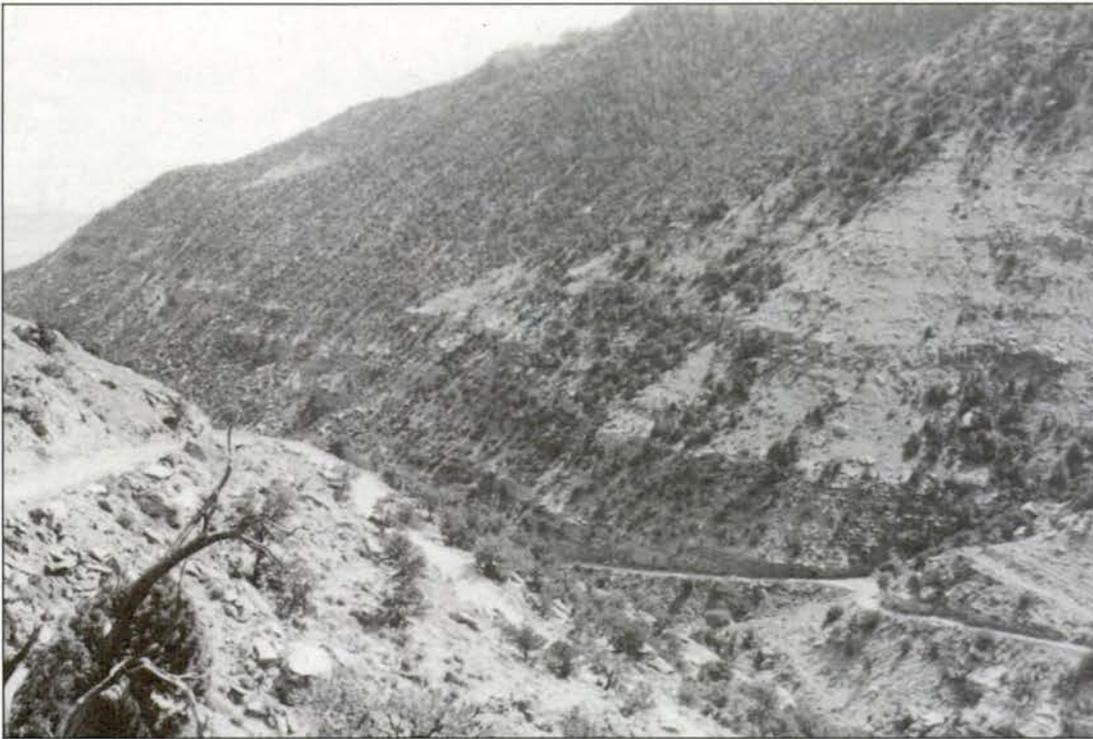
There are many more trees. The aspen (in the foreground) have grown. The background shows a great increase in trees, especially in the two drainages on the right side of the photo. The foreground does not appear much different.





1919

73 YEARS LATER



John Niebergall

9-1-92

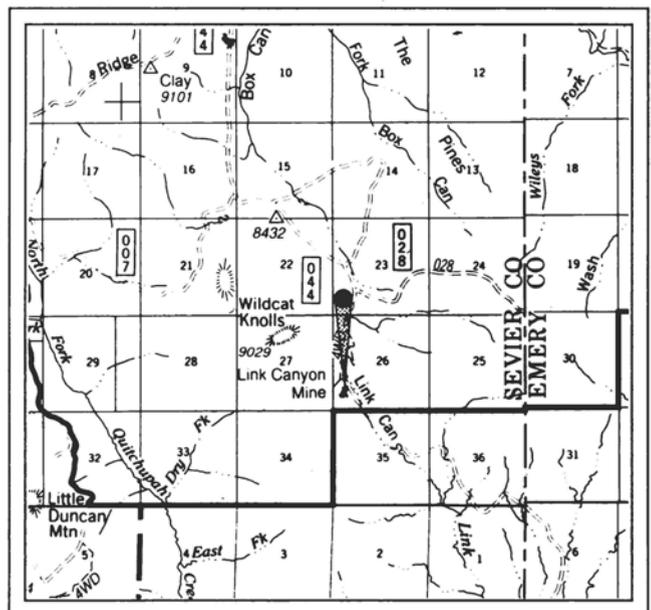
LINK CANYON FERRON R.D.

COMMENTS ON ORIGINAL PHOTO

A general view of Link Canyon showing trail and route of proposed wagon road.

1992 SITE EVALUATION

Pinyon-junipers have increased on the slope in the background. Note the dead juniper tree in the left foreground of the original photo. It still exists with many of the same small branches.



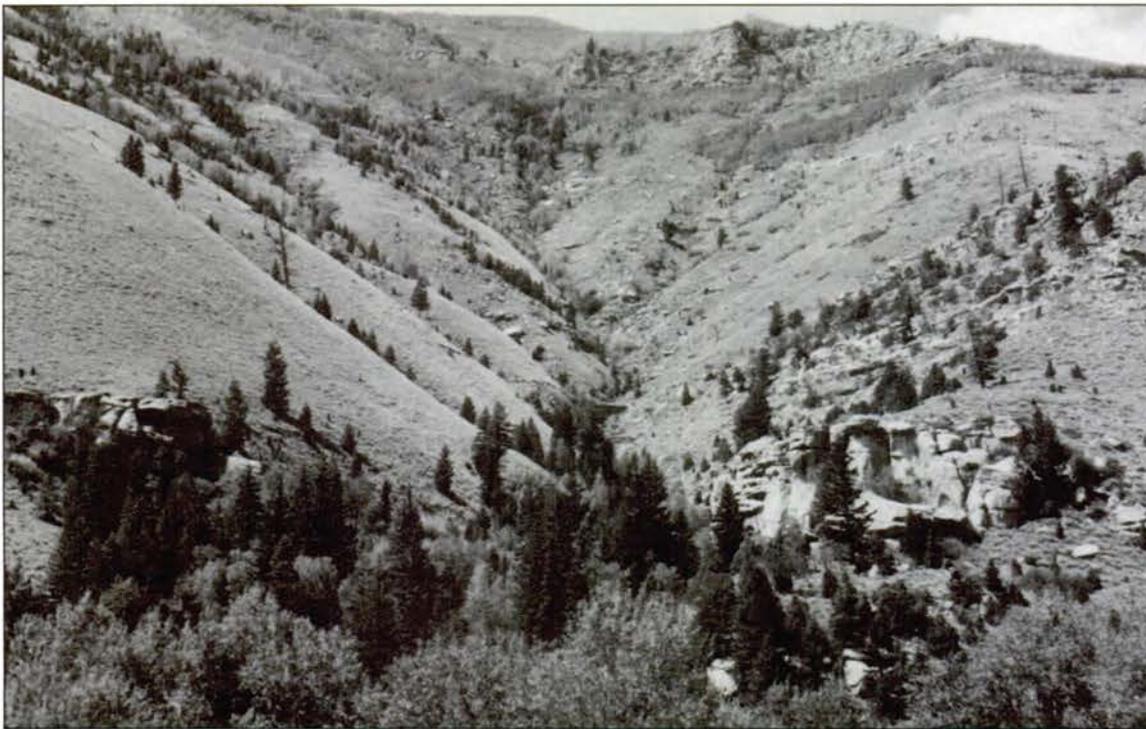


319793

R. W. B.

1935

57 YEARS LATER



John Niebergall

9-2-92

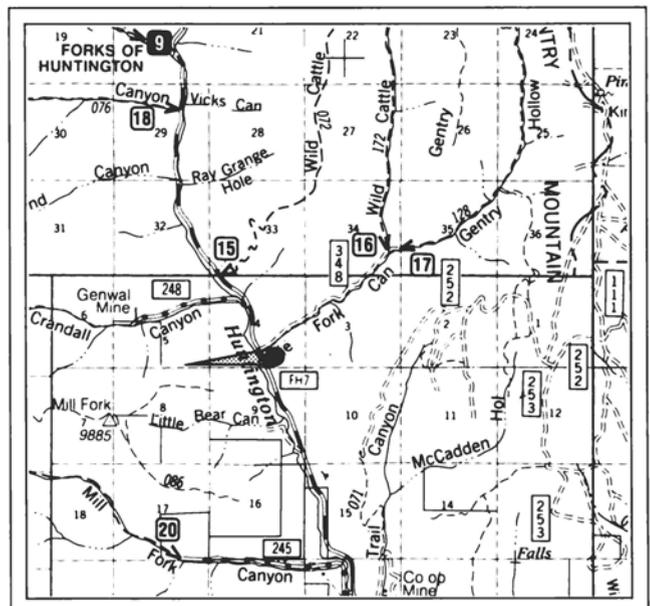
HUNTINGTON CANYON FIRE PRICE R.D.

COMMENTS ON ORIGINAL PHOTO

This is a short, tributary canyon in
Huntington River drainage, Utah.
After burn.

1992 SITE EVALUATION

As expected, aspen have returned to
the site. The ledges in the upper part
of the canyon are now covered by
trees. The slopes on both sides of the
canyon appear to have more
vegetation. After over 50 years, some
snags remain standing.



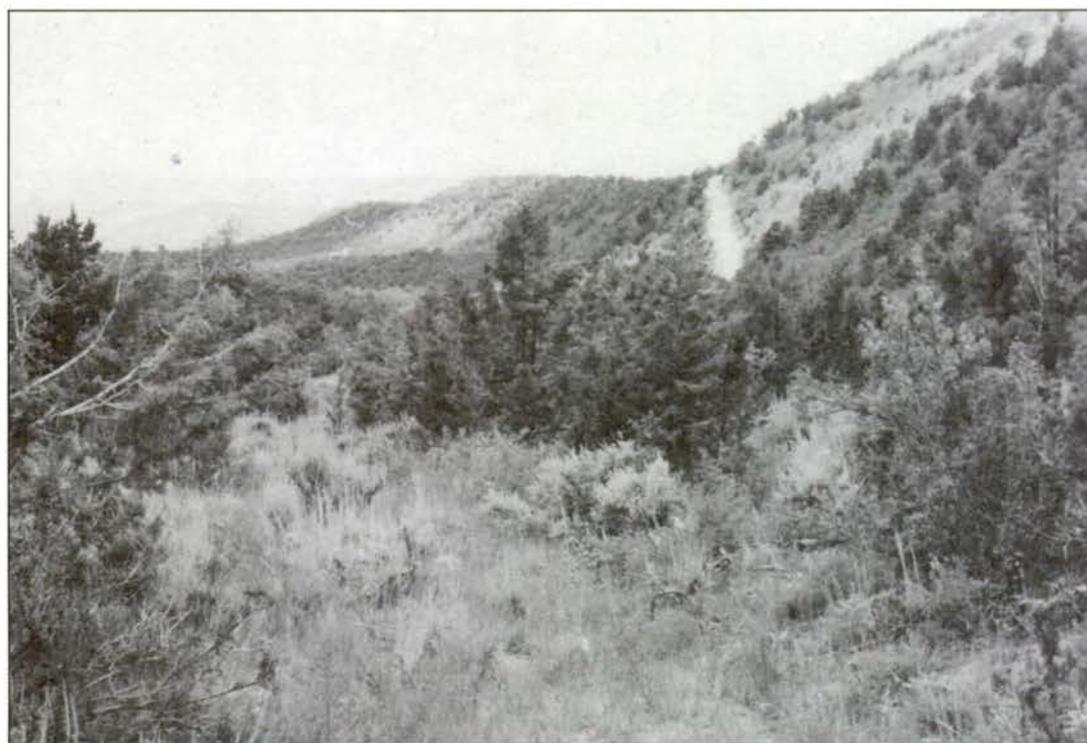


S32 - 60

J. K. Stithem

9-1-60

32 YEARS LATER



John Niebergall

7-16-92

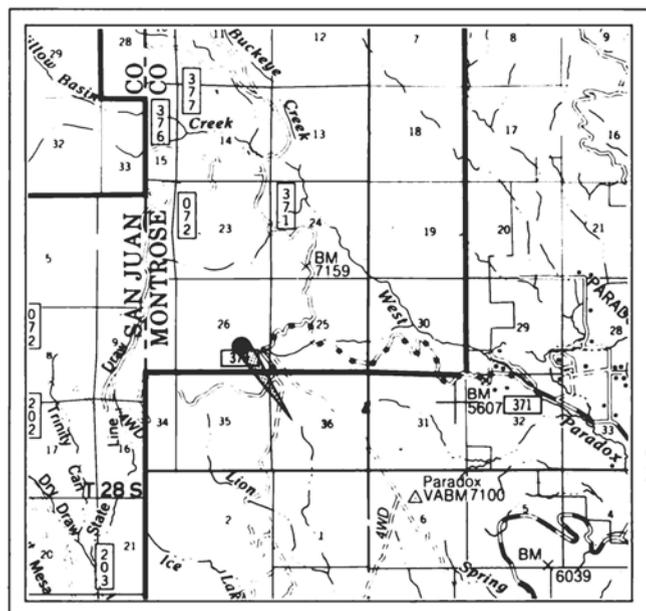
SOUTH PARADOX ALLOTMENT MOAB R.D.

COMMENTS ON ORIGINAL PHOTO

Area of possible revegetation project.
Tall sagebrush. South Paradox
Allotment.

1992 SITE EVALUATION

Pinyon-junipers now dominate the site. Sagebrush is dying except in small openings. The grass is mostly poa. The original photo point is now 100 percent pinyon-juniper. This photo was taken 200 feet west of the original photo point on an abandoned road so part of the flat could be seen.





C62 - 58

Ted Cox

8-6-58

34 YEARS LATER



John Niebergall

7-17-92

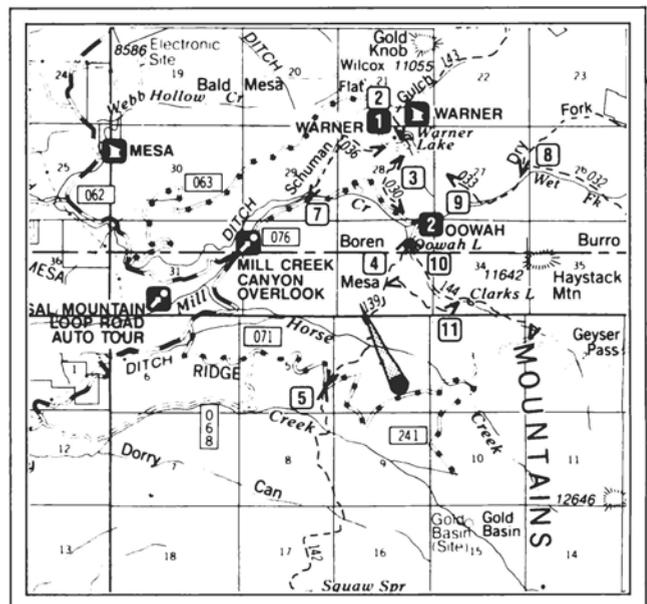
BRUMLEY RIDGE ENCLOSURE MOAB R.D.

COMMENTS ON ORIGINAL PHOTO

Brumley Ridge Allotment. A general view of the Brumley Ridge enclosure, constructed in 1958. Note hummocking of snowberry clumps.

1992 SITE EVALUATION

The area is completely covered with grass, primarily poa with a few forbs. The original photo was taken from the edge of an aspen stand. This stand has increased in size and invaded the opening. Aspen have also increased inside the enclosure. The snowberry has much more vigor.





S20 - 60

J. K. Stithem

8-10-60

32 YEARS LATER



John Niebergall

7-18-92

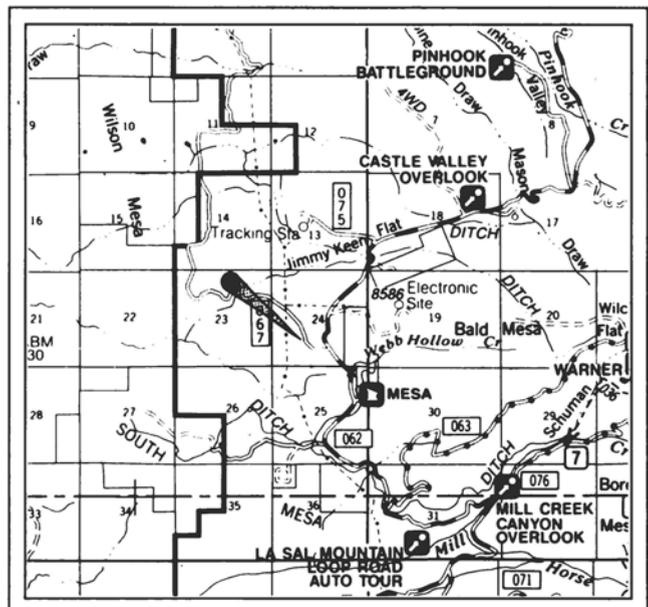
WILSON MESA MOAB R.D.

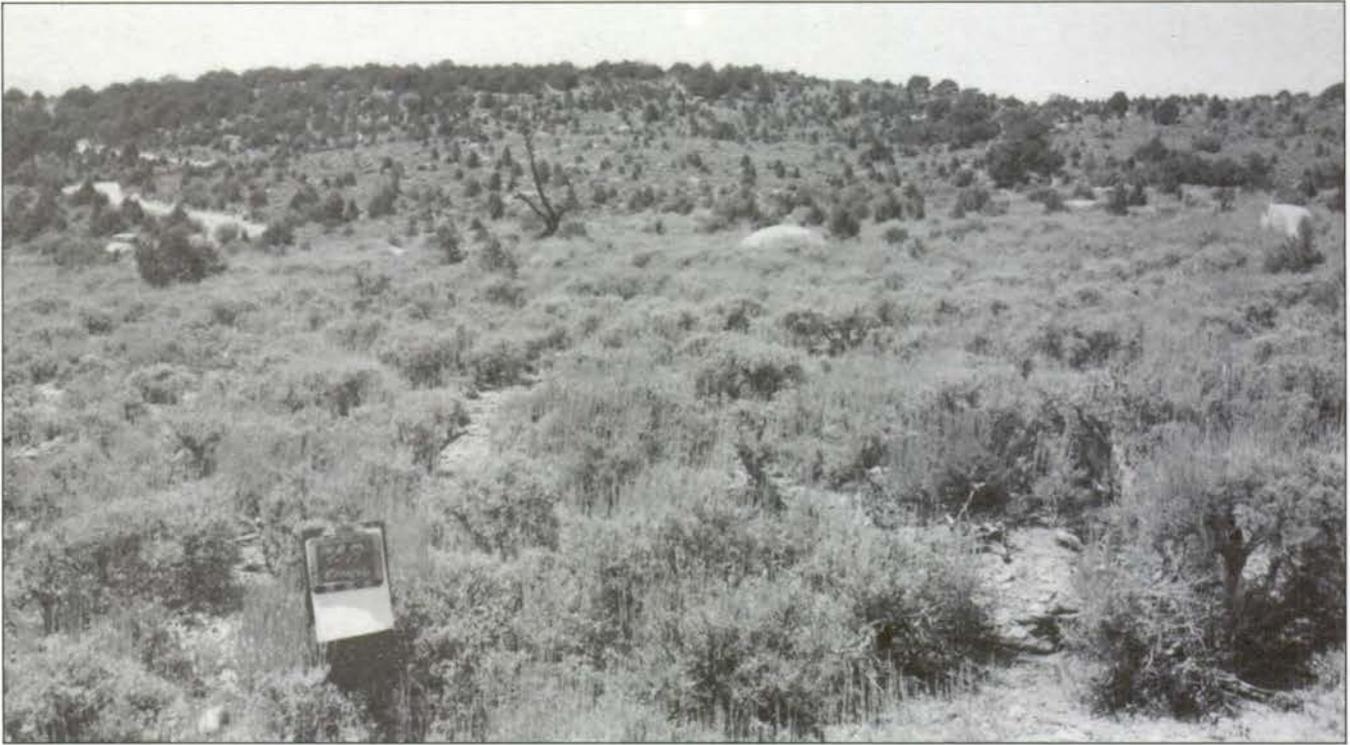
COMMENTS ON ORIGINAL PHOTO

Warner Bald Mesa Allotment.
"Wilson Mesa." A general view from
transect T17 southeast across the
allotment.

1992 SITE EVALUATION

The pinyon-junipers have increased in
size and dominate the site. There
appears to be less sagebrush. The
rocks have remained the same.



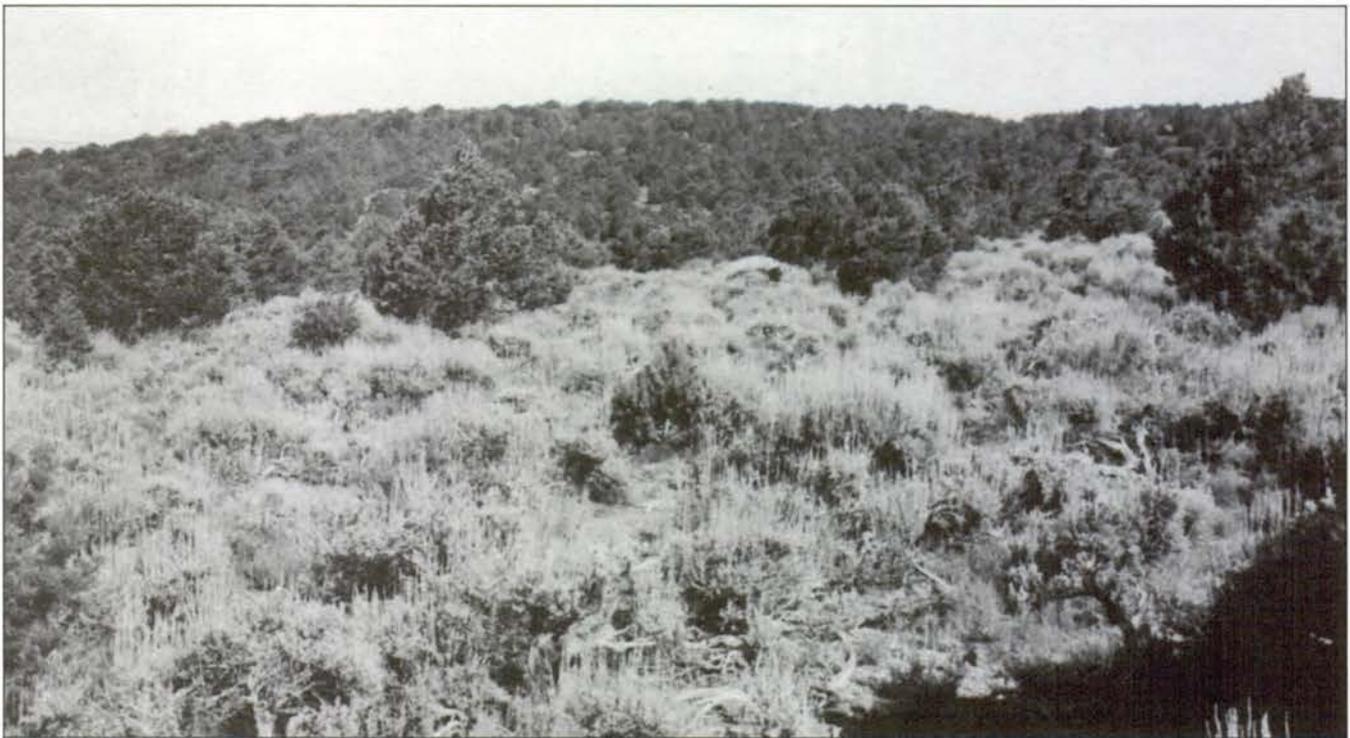


T13 - 60

R. M. Thompson

8-10-60

32 YEARS LATER



John Niebergall

7-18-92



S5 - 59

John Stithem

9-3-59

33 YEARS LATER



John Niebergall

7-16-92

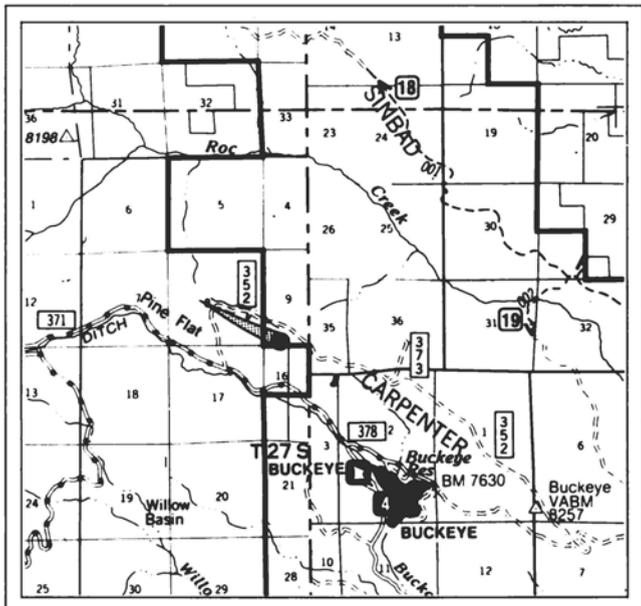
LONG DRAW MOAB R.D.

COMMENTS ON ORIGINAL PHOTO

Before study. Long Draw is part of revegetation project using heavy poa sod. North Paradox Allotment.

1992 SITE EVALUATION

The grass is now mostly smooth brome and some poa. The dark green plants are lupine. Snowberry is no longer found on the site. The ponderosa pines have increased in size but not in number.





A

Julian Thomas

late 1940's

40 YEARS LATER



Joel Frandsen

9-89

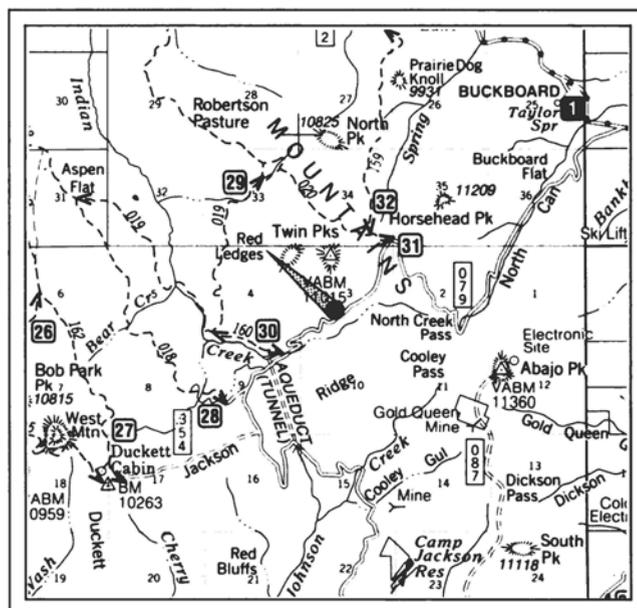
HEAD OF INDIAN CREEK ABOVE ROAD MONTICELLO R.D.

COMMENTS ON ORIGINAL PHOTO

The photo shows the condition of the area with soil moving from this site through the developed gully system.

1989 SITE EVALUATION

The site has been contour trenched and the gully system broken up and stabilized by increasing the groundcover (vegetation).





B Julian Thomas late 1940's

40 YEARS LATER



Joel Frandsen 9-26-89

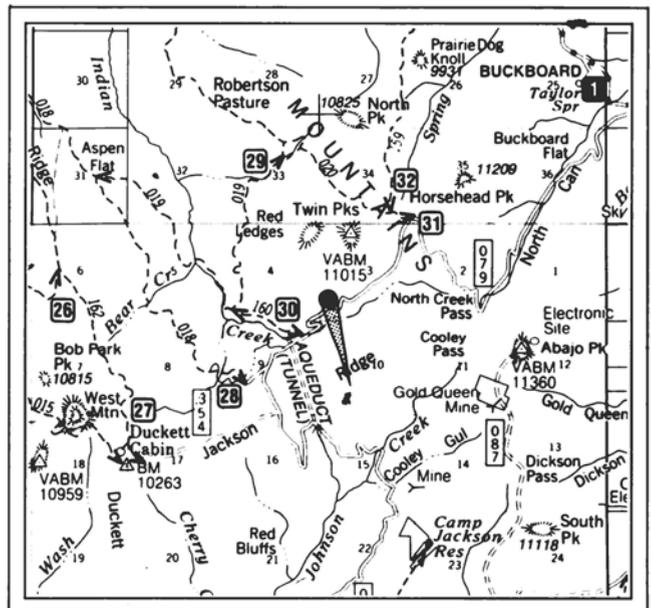
HEAD OF INDIAN CREEK MONTICELLO R.D.

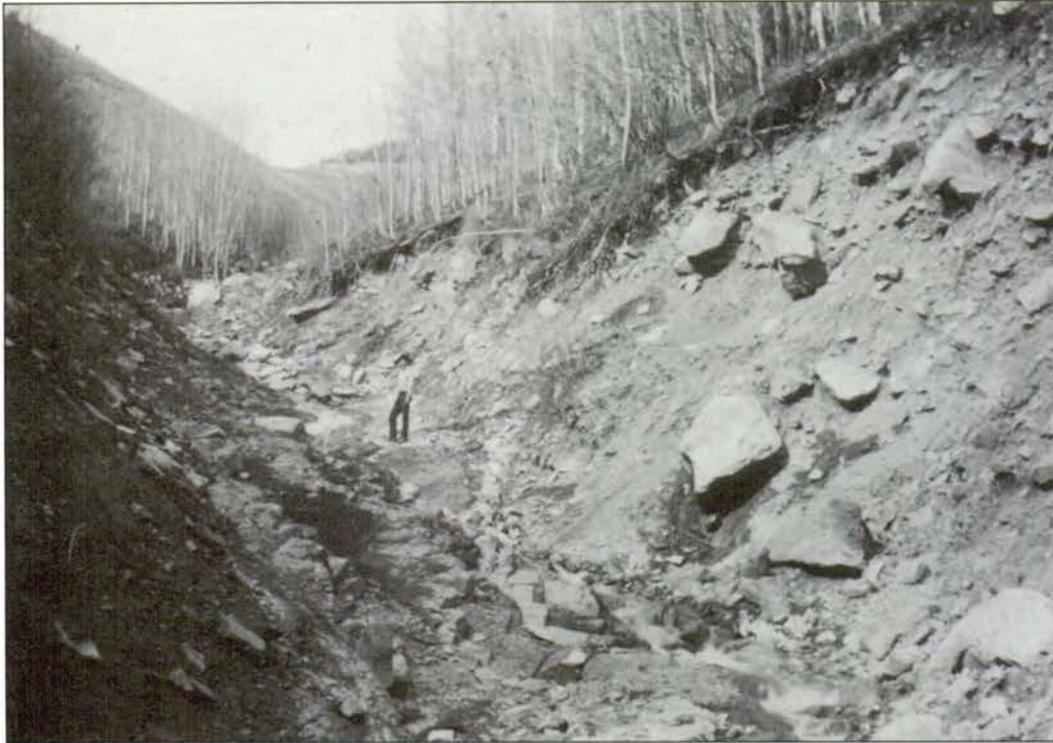
COMMENTS ON ORIGINAL PHOTO

Slope with exposed rock and pavement with gullies through the area. Note the one small conifer on the right side of the aspen.

1989 SITE EVALUATION

The site has had small furrows constructed through it. Vegetation and groundcover have increased, stabilizing the slope and covering most of the rock and pavement. Note the size of the conifer on the right edge of the photo.



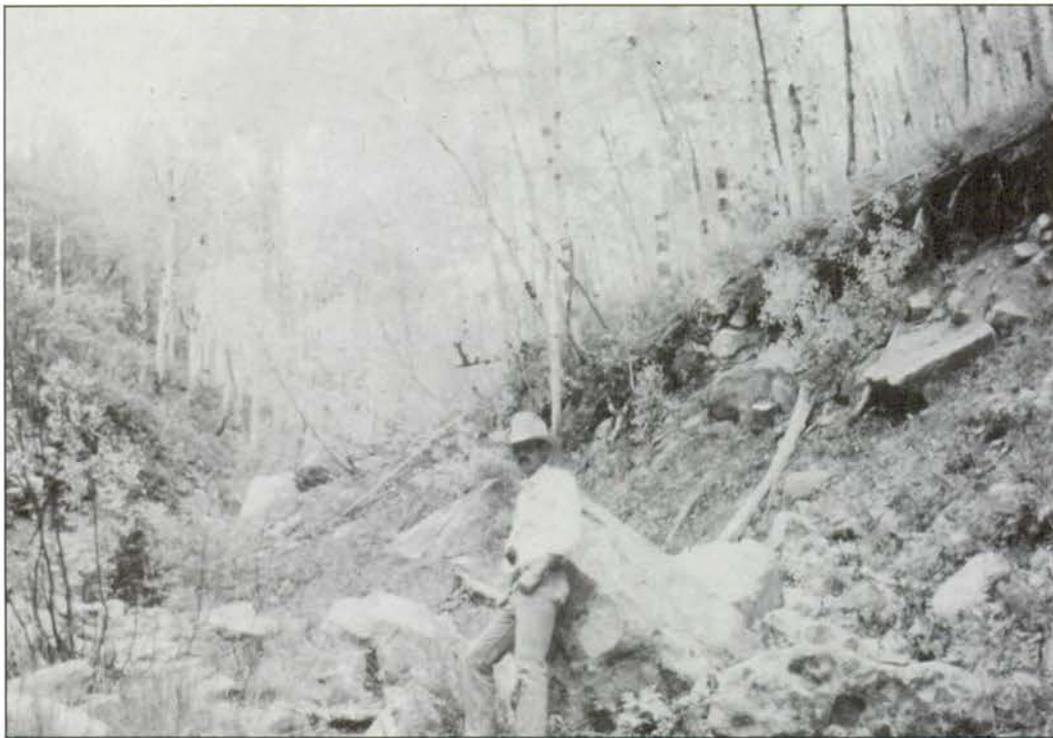


C

Julian Thomas

late 1940's

40 YEARS LATER



Joel Frandsen

9-89

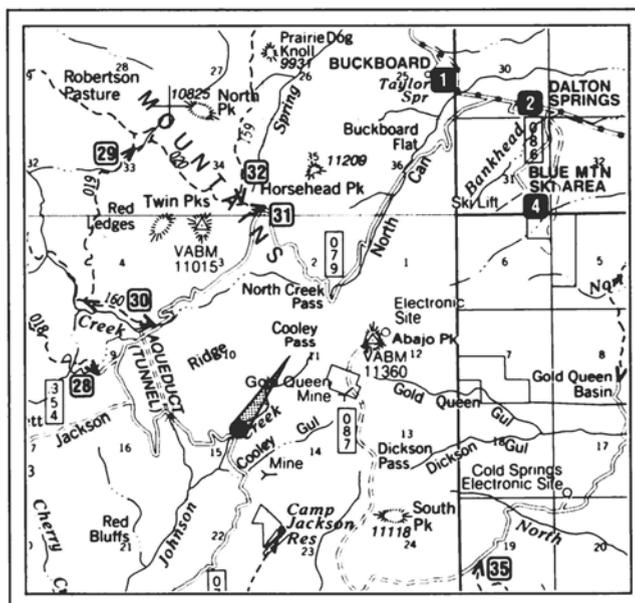
TRIBUTARY TO JOHNSON CREEK MONTICELLO R.D.

COMMENTS ON ORIGINAL PHOTO

The stream channel is denuded of vegetation. Note the large rock in the bottom, by the bend in the creek, and beyond the person.

1989 SITE EVALUATION

This is approximately the same area as the original photo. Riparian vegetation has returned and stabilized the stream channel. The steep-sided slopes are being stabilized with aspen and other vegetation. Jimmie Forrest is standing by the rock shown in the 1940 photo.



A CHRONOLOGICAL SUMMARY
of
SIGNIFICANT EVENTS
IN THE HISTORY, CREATION AND ADMINISTRATION
of the
MANTI-LA SAL NATIONAL FOREST
ESPECIALLY RELATED TO THE MANAGEMENT OF VEGETATION

1 7 6 0 ' s

By this time, Spanish explorers had become the first Europeans to see the area which, nearly 150 years later, would become the Manti-La Sal National Forest. By 1765, Juan Maria de Rivera had penetrated to the eastern front of the La Sal Mountains. During the next decade, Spanish traders followed and extended Rivera's routes—most likely increasing other traders' awareness of the La Sal and Abajo Mountains. (Peterson 1975:6.)

1 7 7 6



Top of La Sal's, 1969.

Fathers Dominguez and Escalante, attempting to reach California, were afforded views of the east side of the La Sal Mountains. The expedition's map maker, Don Bernardo Miera y Pacheco, referred to many of the important landforms in eastern Utah and Colorado including the La Sal and Abajo Mountains. Of the La Sals, Father Escalante wrote, "According to what we are told, the Yutas [Utes] who live hereabouts get their salt [from the nearby area]." Near Grand Junction, the group continued northwest to the Uinta Basin and then west to the Strawberry Valley. The expedition frequently lost track of their cattle in the tall grass of the Spanish Fork Canyon. (Bolton 1950 as cited in Peterson 1975:7; Vaughn Francis' personal communication with Andy Godfrey, Intermountain Regional Office, Public Affairs, 1993.)

While Escalante and Dominguez did not reach California, their expedition did much to open eastern Utah to exploration by others. In the decades that followed, large caravans of traders leaving Santa Fe [sometimes numbering as many as 300 men] travelled the "Old Spanish Trail," which had been extended westward from Moab through the San Rafael Swell toward Salina Canyon, allowing them views of portions of the Wasatch Plateau, later to become the Manti National Forest. Some even may have penetrated some of the Forest's eastern canyons [Ferron, Muddy, Quitchupah, Straight Canyon, Rock, and Huntington Creeks]. However, no records have been found describing the Forest at that time. (Peterson 1975:6-9; Geary 1992:28.)

1 7 7 6

Explorer John C. Fremont called travelling between Tucker and Soldier Summit "an open and easy pass." (Fremont 1844 as cited in Geary 1992:30.)

1 7 7 6

With his famous words, "This is the place," Brigham Young led a group of Mormon settlers into the valley of the Great Salt Lake, proclaiming it as their new home.

At the request of Ute Chief Walker, Brigham Young sent settlers to teach the Indians how to till the soil and, in so doing, established the townsite of Manti on November 22, 1849. Settlers immediately began using the timber and water resources of the Forest. (Haymond 1972:10.) "During the first two decades [ca. 1850-1870], however, human impact was relatively light on the mountain landscape. Accessible stands of Douglas fir (better known as 'red pine') were stripped from the lower slopes, but livestock grazing was largely confined to the [Sanpete] valley floor and the foothills." (Geary 1992:12.)

1849

Many towns in the Sanpete Valley were established on the sites of former Indian villages. At first, the Utes retreated; but, between 1853-55, they sought revenge for their lost land and access to traditionally used resources by raiding the settlers' cattle and horses. This was known as "Walkers War." Preoccupied with these and similar skirmishes in the 1865-69 Black Hawk War, Mormon use and settlement of the Forest were curtailed until the 1870's. (Haymond 1972:8-9; Geary 1992:96-101.)

1853 - 1870

In an attempt to establish a hold on southeastern Utah, the Mormons established a settlement at Moab (the "Elk Mountain Mission"). The settlers traded with the Indians and explored the west slope of the La Sals. However, hostilities with the Utes and lack of provisions forced the Mormons to abandon the Mission. (Peterson 1975:15.)

1849

Captain John Macomb, chief topographical officer of the U.S. Army Corps of Topographical Engineers Office, was dispatched to survey a route to the Great Basin. Macomb traveled a route just north of Monticello and noted the "Sierra Abajo" and "Sierra La Sal" Mountains. Of the Abajos, he wrote only that they are "a mountain group of no great elevation; the highest point rising some 2,000 feet above the sage-plain." (Macomb 1876.)

1859

Elsewhere, there was concern over the decline of timber stands in the eastern United States. Dr. Franklin B. Hough succeeded in getting Congress to pass a resolution "on the importance of promoting the cultivation of timber and the preservation of forests." His subsequent Report on Forestry called for management of federal timber lands, creation of forest experiment stations, tree planting and public education on the need for conservation. In 1881, Hough was named Chief of the United States Division of Forestry. (West 1992:7-8.) This infant conservation movement in the East would later have profound impacts in the West.

1853 - 1870 ●

In 1875, a member of the Hayden survey team wrote of the La Sal Mountains: "If a wilderness be a region which has no place on the maps and no sign of civilized habitation, then the Sierra La Sal is certainly a wilderness." He saw no sign of any settlement nearer than 200 miles in any direction. It was, he concluded "emphatically the *terra incognita* of the country." (Peterson 1975:39.) However, this contradicts other information that the country was something of a haven for cowboys and outlaws who required a buffer from the establishment of communities in southeastern Utah. (Peterson 1975:39.)

Between 1870 and 1890, ranchers grazed their livestock in the Forest. Several large cattle outfits including the La Sal, Pittsburg, Carlisle, the LC, the Scorup Brothers and the Bluff Mormons ran cattle on the La Sals and the Abajos. (Peterson 1975:79-100.)

In the 1870's, it was stated that grass and forbs on Philadelphia and Bluebell Flats in Ephraim Canyon were so high that cows were difficult to see. (Nielson n.d. as cited in Haymond 1972:107; Mont Lewis' personal communication with Joel Frandsen, 1993.)

As arable land in the valleys was settled, there was a shift in the region's economic base. Many farmers, especially those in the Sanpete Valley turned to raising livestock. Within a few years, farming was supplemental to the livestock industry. (Geary 1992:13.)

In the late 1870's and early 1880's, settlements sprang up east of the Wasatch Plateau. Many of these settlements, such as Castledale, Ferron and Emery, were settled by Sanpete Valley pioneers. As the Castle Valley settlements grew, their livestock herds joined the Sanpete Valley herds in grazing the Wasatch Plateau's seemingly inexhaustible summer pastures.

After 1880, sheep began to replace cattle. Geary (1992:15) notes that by 1880, the Plateau was "being seriously overgrazed . . . [and] the damage was intensified by the practice of setting brush fires . . . to make it easier for the sheep to move around."

As the sheep business in Utah began to take hold, large bands of nomadic sheep grazed on the Manti Division, mainly by out-of-state interests.

The Hole in the Rock Expedition led to the first European settlement of southeastern Utah. The rugged San Juan region of Utah was, not surprisingly, one of the last areas in the Intermountain West to be settled by the Mormons. In the spring of 1879, 236 men, women and children under the leadership of Silas S. Smith set out for southeastern Utah. After exploring several routes, the group's final leg of the trip was across the canyons of the Colorado River. Cutting, blasting and building trail through vertical cliffs, the expedition reached the present site of Bluff on April 6, 1880. During the next decade, the towns of Monticello and Verdure were established by Mormon settlers as part of a strong Mormon move to reclaim the country from large expanding cattle outfits.



Ferron Mountain, Wasatch Plateau, 1981.

In the 1880's, gold and silver deposits were discovered along the San Juan River and the La Sal and Abajo Mountains. Small settlements of miners worked both placer and lode deposits in the mountain areas (Peterson 1975:27-28), probably stripping away native vegetation along short sections of streams.

Upon completion of the Denver and Rio Grande and Sanpete Valley Railroads in the 1880's, railheads were established at the towns of Manti and Colton. This profoundly impacted the vegetation of the Manti Division. Sheep were shipped to Manti by rail from as far away as Oregon. They were trailed onto the Forest where they drifted northward on the Plateau during the summer and then were shipped from the railhead at Colton [near the present junction of Highways 6 and 96] in the fall. Sheep from Colorado also were trailed westward across eastern Utah to summer pastures on the Plateau.

To complete the railroads, timber was harvested for railroad ties. Timber also was harvested for use as mine props in the Plateau's expanding coal mines. In Ephraim Canyon, "Every tree of red pine and black balsam big enough to make a tie was taken." (Lauritz Nielson n.d as cited in Haymond 1972:105.) Haaser suggests that conifer species greater than 12 inches in diameter were removed from the Forest for railroad ties by the early 1900's (Karl Haaser's personal communication, 1994). Other data (1915 Manti National Forest Timber Reconnaissance Atlas) indicate that several small sawmills were cutting conifer species and transporting the majority of the lumber by wagon to the Sanpete Valley.

Lauritz Neilsen recalls that in the mid-1880's, it was possible to drive a team and wagon across the creek in Ephraim Canyon. "There were no steep, raw banks dropping into the creek." Only a few years later, he remembered "looking through the aspen and there was not a green leaf or sprig of any kind as high as the sheep could reach, and the ground was absolutely bare. They ate everything that was green." (Neilsen 1953 as cited in Geary 1992:16-17.) Just before the turn of the century, sheep populations grazing the entire Wasatch Plateau peaked at somewhere between 800,000 and one million head. (Antrei 1982:206 as cited in Geary 1992:16.)

Unrestricted overgrazing prompted one observer to write that between 1888 and 1905, "The Wasatch Range, from Thistle to Salina, was a vast dust bed, grazed, trampled and burned to the utmost. . . . These high mountain pastures . . . received not only the most abuse, but have [taken] longer in recovering from its effects." (Reynolds 1911 as cited in Keck 1972:15.)

Between 1888 and 1910, serious floods were reported in Ephraim and other canyons on the Sanpete Valley side of the Wasatch Plateau. Flooding also was reported in Castle Valley on the east side of the Plateau. Agricultural and business properties were destroyed and fish populations in the mountain streams were decimated. By the end of 1901, the situation in the Sanpete Valley was desperate. Livestock overgrazing was frequently blamed for the disastrous flooding. (Keck 1972:15-16.)



Blue Lake, 1991.

1890-1910



Sheep grazing, Wagon Road Ridge, 1969.

1 8 9 1

With passage of the General Provision Act in 1891, Congress authorized the President to designate particular areas of forested public domain as Forest Reserves. The first to be designated was the Yellowstone Timberland Reserve. That designation was quickly followed by several more. The Department of the Interior supervised the Reserves. (West 1992:30.)

1 7 7 6

In response to outcries from residents of towns in southeastern Utah over polluted streams, the Territorial Legislature passed a law in 1892 prohibiting sheep from watersheds within seven miles of a city. (Peterson 1975:122.)

1 8 9 1



Wild flowers, Skyline Drive.

Nationally, roughly 40 million acres were now set aside as Forest Reserves. To clarify their defined purpose, Congress passed the forest management or "Organic Act" in 1897. The Act identified that the primary purposes of the Reserves were to provide favorable conditions for waterflow and a continuous supply of timber for the nation. (West 1992:30.)

Early administration of the Reserves was based on a hierarchy of state superintendents, Reserve supervisors and rangers who managed districts within the Reserves. The rangers were the key to successful Reserve management. The word ranger was derived from the French word "rover." First introduced in 1066, rovers were game wardens of Royal Forests. Reserve rangers, however, were expected to protect wildlife and administer many other resources. (West 1992:31.)

1 7 7 6

In 1900, La Sal Mountain miners met to pass resolutions protesting "the encroachment upon mineral lands by those seeking to use land for grazing." (Grand Valley Times, September 7, 1900, as cited in Peterson 1975:117.)

Continuing problems over polluted water led residents of Monticello to request a ruling on the Territory's 1892 grazing and city watershed law. The attorney general ruled that grazing within 7 miles of a town constituted a misdemeanor. To be classified as a town, there needed to be three families, a post office and a school. (Peterson 1975:122.)

1 9 0 1 - 1 9 0 2

Dr. Foster R. Kennar attributed an outbreak of typhoid fever in Sanpete Valley in the late 1890's to culinary water contaminated by decaying animal carcasses lying in Forest streams. In 1902, Sanpete Valley citizens petitioned the federal government to establish a Forest Reserve above Manti. (Haymond 1972:10-11.)

Monticello turned to the Interior Department for help in protecting the watersheds from continued pollution. (Peterson 1975:123.)

Albert Potter, head of the Grazing Division of the Department of Forestry, warned that unless overgrazing was stopped, the watershed above Manti and Ephraim would be irreparably harmed.

In response to petitions from Sanpete Valley citizens, approximately 8,800 acres in Manti Canyon were withdrawn from entry and grazing in March 1902. Despite opposition from stockmen, Nephi Otteson was hired in 1902 to ride the Reserve and enforce the closure. (Haymond 1972:11.)

Nationally, efforts to conserve timber and rangeland resources were strengthened with the adoption of The Forest Reserve Manual in 1902. It regulated timber use and grazing on all Forest Reserves. Enforcement of grazing regulations was to be a constant challenge for Forest Reserve rangers who among other things according to one recruitment poster were expected to "build trails, ride all day and night, pack, shoot, and fight fire without losing their heads." (West 1992:31-32.)

Spurred on by Potter's report, George Sutherland, a United States Congressman and a "Republican of some political stature both in Utah and Washington, D.C.," led a move to create a Forest Reserve in the mountains above the Sanpete and Castle Valleys. On May 29, 1903, President Theodore Roosevelt signed the official proclamation creating the Manti Forest Reserve. (Haymond 1972:16-18.)

Robert R. V. Reynolds and R. B. Wilson inspected the La Sal and Abajo Mountain regions pursuant to their establishment as Forest Reserves and observed deteriorating grazing and watershed conditions. With the exception of the miners, they found that very few local citizens were enthusiastic about the prospect of a Forest Reserve. However, both Reynolds and Wilson recommended that Forest Reserves be established. While the mood regarding establishment of the Reserves was almost laconic, the Grand Valley Times expressed optimism about the benefits of federal management of the mountains' watersheds, timber supply and range resources. (Peterson 1975:123-124.)

Jurisdiction of the existing Reserves was transferred to the Department of Agriculture when the Transfer Act was passed. A few months later, Gifford Pinchot, Chief of the Forest Service, imposed grazing fees and a use by permit system. In addition, permits were only issued to local residents; roving bands with no home ranch were excluded. (Joel Frandsen's personal communication, 1994.) Accustomed to free use, ranchers strongly protested. The institution of grazing fees and livestock use by a permit system, coupled with President Theodore Roosevelt's addition of 100 million acres to the Forest Reserve system were the source of most major attacks against the Forest Service for the next 50 years. (Roth 1980:21 as cited in West 1992:39.)

1849



*Separating sheep,
Lake Fork Allotment, 1967.*

1859

1849

1849



Early Supervisor and Rangers of the Manti National Forest.

Between 1904 and 1919, the number of permitted sheep on the Manti Forest was reduced from nearly 300,000 to 140,000. (Haymond 1972:85.) In a similar time period, the number of permitted sheep in the La Sal Forest was reduced from 84,000 in 1907 to less than 30,000 in 1920. (Peterson 1975:186-188.)

1859

1906 On January 18, 1906, President Roosevelt added by Proclamation over 190,000 acres of land to the north end of the Manti Forest Reserve. This encompassed most of the land currently in the National Forest from approximately Fairview Canyon to Spanish Fork Canyon. This action was welcomed by many Fairview residents who wished to see the watershed and timberlands protected. (Haymond 1972:32.)

One week later on January 25, 1906, President Roosevelt signed a Proclamation designating 158,000 acres of the La Sal Mountains as a Forest Reserve.

1859

In February, President Roosevelt signed a Proclamation creating the Monticello Forest Reserve. By 1908, the National Forest Reserve system included 150 million acres throughout the United States.

By an act of Congress, the names of the Forest Reserves were changed to National Forests.

1849

A Presidential Executive Order combined the La Sal and Monticello Forests into the La Sal National Forest.

1849

Seven years after grazing was halted in Manti Canyon, R.V. Reynolds reported there had been no flooding; however, Reynolds noted severe flooding in Ephraim and Sixmile Canyons. These areas had been overgrazed between 1882 and 1902 and grazing continued there. The Forest Service, after petitions from stockmen, permitted cattle and horses to graze in Manti Canyon at the rate of one head for each 30 acres.

1849

While the drastic grazing restrictions in Manti Canyon proved successful, the causes of continued flooding throughout the West were still hotly debated. Furthermore, effective methods for controlling floods were poorly developed and understood. Because the livelihoods of so many rural western towns were at stake, scientific study clearly was needed.



Manti flood, 1898.

In 1911, an area in Ephraim Canyon was selected as the site for a Forest Service range and watershed research station. First named the Utah Experiment Station, it was subsequently referred to as the Great Basin Experiment Station, the Great Basin Branch Station and the Great Basin Research Center, but it was most commonly called the Great Basin Station. The facility became the training ground for numerous prominent range and watershed researchers and other natural resource professionals, as well as serving as a field station for numerous pioneering studies. (Keck 1972.)



Great Basin Station, 1928.

These studies brought the nation's first, true range scientists into the region. The Station became a focal point for studies on range restoration, plant vigor, poisonous plants, revegetation, the impacts of grazing on erosion and runoff, artificial seeding, plant nutrition, rodent damage, and silviculture. Albert Antrei rightly claims that such "Spearmint Station" men as "Arthur W. Sampson, A. Perry Plummer, and . . . Lincoln Ellison deserve the title of pioneer as much as the first Sanpete Valley settlers in 1849." (Geary 1992:19.) In no small way, these researchers and their studies led the way for the Wasatch Plateau's slow and difficult recovery.

Starting in 1912 and lasting until 1922, small groups of elk were introduced into the Manti Forest from the Yellowstone area. (Olsen 1945:72.)

By Presidential Proclamation, 58,000 acres in the Sanpitch Mountain area were transferred from the Nebo National Forest to the Manti National Forest. (Haymond 1972:204.)

1 8 5 9

Between 1920 and 1940, the number of deer and elk increased dramatically according to some accounts. (Reed Christensen's personal communication, 1994). Some assert that the dramatic increases in elk and deer essentially negated the improved range conditions from reductions in livestock numbers. (Haymond 1972:210.)

1 9 2 0 - 1 9 4 0

By Presidential Proclamation, the Sanpitch Mountains (formerly part of the Nebo National Forest) were assigned to the newly renamed Uinta National Forest for administration. (Haymond 1972:205.)

1 9 2 3

With the onset of the Great Depression, President Franklin D. Roosevelt formed the Civilian Conservation Corps (CCC). Several CCC camps were set up on the Forest and young men built trails, ranger stations, fences, reservoirs and worked on a variety of range and timber improvement projects on the Forest. (Haymond 1972:176-178.)

1 8 4 9



CCC workers, mouth of Manti Canyon, about 1937.

1 8 9 1

During discussions of a major structural reorganization, the Supervisor's Office at Moab was closed and administration of the La Sal Forest was temporarily transferred to the Uinta National Forest. One option considered was to combine the La Sal with Colorado Forests, all to be administered from Colorado. However, in keeping with the tradition of having Forest administration closely tied with "on-the-ground" resources and local users, it was decided to have the La Sal administered from within the State of Utah.

1 9 2 3



Marriage ceremony uniting people of Manti and La Sal National Forests to one forest in 1949.

The Manti and La Sal Forests were consolidated into the Manti-La Sal National Forest. After much debate and discussion, the Supervisor's Office was relocated in Price. At that time, Price had a population of 7,000, a large mining industry, and a growing timber industry (to support the mines). More centrally located than Ephraim or Moab, Price was selected for both practical and political reasons. (Peterson 1975:240-242.) For a very brief period, it was called the Manti Forest. After protests from Moab citizens, the name La Sal was attached to the newly merged Forests.

1 9 2 3

In the early 1950's, grazing was prohibited on Forest watersheds above the town of Blanding which reduced the risk of contaminated culinary water. Some trenching, furrowing and seeding were initiated within the upper basins of Johnson and Recapture Creeks to prevent soil erosion. (Julian Thomas' personal communication, 1994).

1 9 5 5

Responding to recurring and damaging floods, Congress passed the Watershed Protection and Flood Prevention Act (P.L. 566). This provided funding to contour trench the Mt. Pleasant watershed. This treatment was later extended to about 35,000 acres of the Manti-La Sal National Forest. Reduced flooding, cleaner water and protection of downstream communities was and is a direct result of the Act and associated treatments. (Dennis Kelly, personal communication, 1993.)

1 9 5 5



Range monitoring workshop on Elks Knoll, 1991.

R.E. McArdle, Chief of the Forest Service, designated Elk Knoll at the head of Manti Canyon as a Natural Area. This became the first Natural Area to be established within the Intermountain Region. It later was referred to as a Research Natural Area.

1960

Resource conservation on National Forests included a variety of activities not formally mandated until passage of the Multiple Use-Sustained Yield Act of 1960. The Act directed the Forest Service to give equal consideration to outdoor recreation, range, timber, water, wildlife and fish resources and to manage them on a sustained-yield basis. (West 1992:71.) The Act was declared to be supplemental to, but not in conflict with the original purposes for which the National Forests were established in the Organic Act of 1897.

In the late 1950's, a new method of range analysis was adopted in the Intermountain Region and grazing allotments were prioritized and inventoried. As inventories were completed, actions were taken to balance livestock use with the carrying capacity of each allotment. Controversies and appeals developed. Gradually, most stocking levels were adjusted and many range improvements were initiated which aided in better management and control of livestock.

The writing of multiple use management plans was started in the late 1950's. Subregional multiple use guides were finalized in 1961 and incorporated in multiple use plans for each Ranger District. The plans integrated various forest and resource uses by zone and provided a longer term perspective for management.

Several large range-improvement projects, some involving mechanical removal of pinyons and junipers and reseeding of grasses and forbs to enhance winter forage for deer, were undertaken in the 1960's.

In the early 1960's, District Rangers were directed to use interdisciplinary teams to prepare multiple use survey reports before undertaking activities that might have significant effects on the environment. These voluntary reports were forerunners of environmental analysis documents required by the National Environmental Policy Act. (Reed Christensen's personal communication, 1993.)

From 1963 to the early 1970's, extensive trenching, furrowing and reseeding activities were undertaken in the Ferron Creek watershed when federal funds became available through the Small Watersheds Act of 1955 (P.L. 566). Using these funds, Millsite Reservoir was constructed. Water from Millsite is used by the City of Ferron and the Hunter Power Plant (coal-fired, electricity-generating). (Joel Frandsen and Dale Harber, personal communication, 1994.)

Passage of the Wilderness Act allowed Congress to establish wilderness areas on National Forests, with public involvement and input. (West 1992:71.)

Joes Valley Reservoir was completed. The Reservoir provided downstream users a reliable source of irrigation water.



Pinyon-juniper treatment, 1972, Moab.

1963

1960



*Horse Pasture Canyon,
Dark Canyon Wilderness, 1992.*



Joe's Valley Dam and Reservoir.

As part of the Joes Valley Project, several small irrigation reservoirs were stabilized by the Bureau of Reclamation and their use converted to maintaining a permanent fishery. Irrigation water rights were transferred to Joes Valley Reservoir. (Joel Frandsen's personal communication, 1994.)

During the 1960's, the Monticello Ranger District initiated efforts to harvest overmature ponderosa pine stands susceptible to insect infestation. Mountain pine beetle activity was increasing at alarming rates. Approximately 150 million board feet of timber was harvested by the early 1970's. (John Vasten's personal communication, 1994.)



Loading ponderosa pine logs, Monticello, 1967.

Allowing both cattle and sheep to graze the same allotments (referred to as common use) was discontinued in the 1960's. Cessation of common use allowed better documentation of impacts to range resources by specific classes of livestock. (Karl Haaser and Vaughn Francis, personal communication, 1993.)

1 9 6 9

Passage of the National Environmental Policy Act (NEPA) fostered public involvement in managing the National Forests. It provided greater consideration for environmental resources and the social and economic well-being of the American public, as well as allowing the public to file lawsuits against the agency for noncompliance. (West 1992:71.)

1 9 6 0

A Forest Servicewide roadless area review (RARE I) was undertaken by the Forest Service for the purpose of identifying lands suitable for designation as wilderness.

In the 1970's, laboratory research and analysis of field studies at the Great Basin Research Station were gradually transferred to other locations in Ogden and Provo where the Forest Service had watershed, range and timber research facilities. While field studies continued on Research Station lands, housing and laboratory facilities were gradually phased out.

1 9 6 9

The federal government was given a leading role in protecting threatened and endangered plant and animal species when Congress passed the Endangered Species Act.



Mexican spotted owl, Monticello RD, 1992.

The five Ranger Districts in the Manti Division were consolidated into three. Offices in Castle Dale, Mount Pleasant and Manti were closed and a District Office was added in Price. District boundaries were adjusted on larger watershed units. The Sanpitch Mountains were administered by the Nebo National Forest until 1913, by the Manti National Forest from 1913 to 1923, by the Uinta National Forest from 1923 to 1974 and was returned to the Manti-La Sal National Forest in 1974 for administrative jurisdiction. From 1974 on, the Sanpete District included river drainage systems of the Sanpitch River and other drainages in the Sanpitch Mountains. The Ferron District has included the Muddy, Ferron, Straight Canyon and other small drainage systems; and the Price District has included portions of the Price, Huntington and Spanish Fork drainage basins.

Passage of the Forest and Rangeland Renewable Resources Planning Act (RPA) in 1974 strengthened the goals of the Multiple Use-Sustained Yield Act by requiring inventories of resources. (West 1992:71.)

In June, a major landslide blocked Manti Canyon. The possibility of a break in the unstable "natural dam" presented a significant flood threat for the community of Manti. The slide started to stabilize in 1978. (Joel Frandsen's personal communication, 1994).

The Forest completed and began implementing the Monticello District's environmental impact statement and land use plan. This was the first District-wide land use plan to be developed on the Forest.

Appeals over timber management policies especially clearcutting in Montana and West Virginia National Forests raised serious questions about harvesting practices as interpreted in the Organic Act of 1897. The National Forest Management Act (NFMA) passed in 1976 clarified the 1897 Act and placed major emphasis upon the development of management plans for each National Forest and proposals for the management of each type of resource.

NFMA made significant changes in the way the Forest Service had traditionally done business. Forest officers frequently complained about the increasing difficulty of doing on-the-ground management when so much time had to be spent doing planning from the confines of their offices. Despite the frustrations and immense barriers presented by NFMA, each Forest in the Intermountain Region completed land management plans. (Alexander 1987:225-226.)

The second roadless area review (RARE II) was initiated and administrative recommendations were made to include, exclude or conduct further study of specific areas as designated Wildernesses. During this review, the Dark Canyon area was recommended for Wilderness status.

1 9 7 4



*Cottonwood landslide,
Manti Canyon, 1980.*

1 9 7 4

1 9 7 9



Jordan Canyon Watershed Improvement Project, 1992.

1 9 8 3 - 1 9 8 4



1983-1984 flood and landslide event. Ephraim Canyon, 1986.

1 9 7 9

The Electric Lake Dam was completed. In conjunction with Utah Power and Light's Huntington Power Plant, Electric Lake Dam regulates waterflows and aids greatly in maintaining a blue ribbon trout fishery in Huntington Creek.

The Ferron-Price Districts Environmental Impact Statement and Land Use Management Plan were completed, addressing management of all Colorado River drainages in the Manti Division. This was the second land use plan completed on the Forest that addressed a wide variety of resources.

Numerous landslides were triggered by heavy winter snows in the mountains and rapidly rising spring temperatures. The most extensive were slides in Twelve Mile Canyon and an area near Thistle which dammed part of Spanish Fork Canyon. The Thistle slide backed up a large lake flooding portions of Utah Highways 6 and 89 and the Denver and Rio Grande Railroad. Transportation between Price and Provo was rerouted for nearly a year.

Land movements and mudflows seriously altered vegetation on 5,700 acres throughout the Manti Division. About 167 miles of stream channel were scoured, and aquatic and riparian habitats were lost. Fisheries were destroyed in 70 miles of stream and over 113 miles of road were lost. (Manti-La Sal National Forest Land and Resource Management Plan 1986:II-8.)

1 9 7 9

Congress passed the Utah Wilderness Act which added the Dark Canyon in the Monticello Ranger District to the national Wilderness system. Other areas previously identified and considered as Wildernesses were returned to multiple-use status.

The Manti-La Sal National Forest completed its first Forest-wide Environmental Impact Statement and Land and Resource Management Plan with the involvement of many members of the public. The Plan sets both short- and long-term objectives for management of the Forest and its varied resources.

1 9 7 9

The Forest decided to proceed with a plan to supplement the existing elk herd by transplanting 150 head in the Monticello Ranger District. The decision was appealed, litigated and then implemented.

1 9 7 4

The Chief of the Forest Service designated as Research Natural Areas the Nelson Mountain area in the Ferron Ranger District and an area among the high peaks of Mount Peale in the Moab Ranger District.

The Salt Lake Tribune reported that sediment loads between 1963 (when the Glen Canyon Dam was constructed) and 1989 were less than half of what was anticipated. The Bureau of Reclamation attributes this to "land use controls such as grazing restrictions, seeding programs" and upstream water storage features. The Bureau's study stated that "the records showed that most decreases in sediment occurred before 1963, an indication of the impact of rangeland management practices on decreasing erosion rates." (Salt Lake Tribune, July 8, 1989:4B.)

The Chief of the Forest Service designated Cliff Dwellers Pasture, on the Monticello Ranger District, as a Research Natural Area because of its unique, archeological and plant community values which existed because the area had been virtually ungrazed for nearly 50 years.

A spruce beetle population greatly expanded and reached epidemic proportions in the southern portion of Manti Division. Englemann spruce were infested within a 30,000-acre area.

On June 4, 1992, the Chief announced that the Forest Service would begin implementing an ecological approach to management of the National Forests and Grasslands. This approach meant that "the needs of the people and environmental values [must be blended] in such a way that the National Forests and Grasslands represent diverse, healthy, productive and sustainable ecosystems." (USDA-Forest Service 1992.)

Since the the Great Basin Research Station was no longer used as a research facility, the Forest Service and Snow College participated in rehabilitating the deteriorating buildings and converting them for use as an environmental education center. Past Station Directors, researchers and Senator Orrin Hatch attended the dedication ceremony of the Great Basin Environmental Education Center.

1969



*Cattle grazing,
Lowry water allotment, 1991.*

1960

1969

1960



The Doll House, Monticello RD.

FOREST SUPERVISORS

Manti, La Sal, Monticello, and Manti-La Sal National Forests

MANTI FOREST

(Ephraim) (a)

A. W. Jensen, 1906-1910
 C. L. Smith, 1910-1911
 A. W. Jensen, 1911-1914
 B. E. Mattsson, 1915-1919
 J. W. Humphrey, 1919-1941
 A. C. Folster, 1942-1945
 Robert H. Park, 1946-1949

LA SAL FOREST

(Moab) (a)

Orrin C. Snow, 1906-1908

MONTICELLO FOREST

(Monticello) (a)

John Riis (Asst. to Orrin Snow) 1907-

1908: La Sal and Monticello Forests merged and referred to as:

LA SAL FOREST

(Moab)

John Riis, 1908-1910
 Ed Taylor, Acting, 1910
 Henry A. Bergh, 1910-1914
 J. W. Humphrey, 1914-1916
 S. B. Locke, 1916-1919
 Chas De Moisy, 1920-1922
 E. B. Spencer, 1922-1924
 Orange A. Olsen, 1924-1926
 L. T. Quigley, Acting, 1926
 A. C. Folster, 1927-1934
 S. S. Stewart, 1934-1937
 L. D. Haywood, 1937-1944 (b)

1949: Manti and La Sal Forests merged and renamed:

MANTI-LA SAL FOREST

(Ephraim) (c)

Robert H. Park, 1949-1952
 J. O. Stewart, 1952-1956
 George L. Burnett, 1957-1962
 Adrian E. Dalton, 1962-1965
 Robert B. Terrill, 1966-1969
 George F. McLaughlin, 1970-1974
 Reed C. Christensen, 1974-1987
 George A. Morris, 1987-present

- a. Until 1907, the newly created forests were called forest reserves. After 1907, they were called national forests.
- b. From about 1945-1949, the La Sal National Forest was temporarily assigned to the Uinta National Forest for administration. Slim Hansen and Ivan Sack, Uinta NF Supervisors, assumed supervisory responsibilities for the La Sal NF during this time.
- c. Initially after the merger, the combined forests were referred to as the Manti National Forest. However, after the Moab Lion's Club protested the dropping of the name La Sal, the name was changed to the Manti-La Sal National Forest.

DISTRICT RANGERS Manti and Manti-La Sal National Forests*

Beauregard Kenner, 1903 - Manti

Parley Christiansen, 1903 - Mayfield

Dave Williams, 1903 - Emery

Rangers from 1906-1921—Years of service and locations not precisely researched or known:

Frank Anderson, 1906-
Ernest Winkler, 1906
J. P. Brockbank, Huntington, 1914-
Charles Thorpe, Ephraim, 1914- **
T. S. Baker, Ephraim, 1914- **
Joseph Anderson, Ephraim, 1914- **

Other Assistant Forest Rangers—Years of
service and location not precisely known:

S. H. Ollerton, Moroni, 1914-
H. R. Williams, Castle Dale, 1914-
F. M. Cox, Ephraim, 1914- **
J. C. Roah, Ephraim, 1914- **

** These men may simply have been
staff but not official rangers.

MT. BALDY R.D.

Edward P. Cox, 1921-1939
Mont E. Lewis, 1940-1942
Merrill V. Anderson, 1943-1949
Howard K. Foulger, 1950-1952
G. LeGrand Olson, 1952-1956

SEELEY CREEK R.D.

Wells Thursby, 1921-1940
Vaughn Tippets, 1941-1943
Leslie Robinette, 1944
Ivan L. Dyreng, 1945-1951
Merlin R. Stock, 1952-1957

MAMMOTH R.D.

Orange H. Olsen, 1921
Seth H. Ollerton, 1922-1939
A. P. Christiansen, 1940
Wells Thursby, 1941-1956

CLAY SPRINGS R.D. at Emery

D. H. Williams, 1921-1933
Ernst Jorgensen, 1934-1937
H. M. Peterson, 1938-1940

1957: Mt. Baldy R.D. renamed:

MANTI R.D.

Joseph C. Downing, 1957-1962
Karl H. Haaser, 1963-1969
Charles H. Allred, 1970-1971(a)

1957: Seeley Creek R.D. renamed:

EPHRAIM R.D.

Harold L. Edwards, 1958-1963
Wm. G. Davis, 1964-1966
G. LeGrand Olson, 1966-1971
Charles Allred, 1971-1974 (a)

1957: Mammoth R.D. renamed:

MT. PLEASANT R.D.

Wells Thursby, 1957-1958
Martell Applegate, 1959-1972

1974: Ephraim R.D. realigned and
renamed:

SANPETE R.D.

Charles R. Allred, 1974-1977 (b,c)
Bennet W. Black, 1978-1989
Thomas H. Shore, 1989-present

1941: Clay Springs R.D. renamed:

FERRON R.D.

H. M. Peterson, 1941-1942
Jack Buckhouse, 1943-1948
George C. Whitlock, 1949-1956
Wendell, E. Frisby, 1957
Paul R. Leger, 1958-1963
Vaughn E. Francis, 1963-1971
John F. Niebergall, 1972-1990
Ira W. Hatch, 1991-present

- a. 1971: Manti R.D. consolidated with Ephraim R.D.
b. 1972: Mt. Pleasant R.D. consolidated with the Ephraim R.D.
c. 1974: At this time the Sanpitch Mountains were returned to the Sanpete R.D. for administration.

JOES VALLEY R.D.
at Orangeville

Byron A. Howard, 1921
P. M. V. Anderson, 1922-1937
M. V. Anderson, 1938-1942
Mont E. Lewis, 1943-1950
Max C. Green, 1951-1953
Jerry H. Hill, 1954-1956

CANYON VIEW R.D.

Seth H. Ollerton, 1921
Merill Nielson, 1922-1924

1925: Canyon View R.D. combined
with other districts

BEAR CREEK R.D.
at Huntington

B. A. Howard, 1922-1925
A. B. Thomas, 1927-1928

1957: Joes Valley R.D. renamed:

CASTLE DALE R.D.

John K. Stithem, 1957
Donald H. Hooper, 1958-1961
Rollo H. Brunson, 1962-1965
Ira W. Hatch, 1966-1975

1975: Castle Dale R.D. realigned and
renamed:

PRICE R.D.*

Ira W. Hatch, 1975-1991
Charles J. Jankiewicz, 1991-present

* Major reorganization of districts
and headquarters moved to Price.

DISTRICT RANGERS La Sal and Manti-La Sal National Forests*

Rangers from 1906-1921—Years of service and locations not precisely known:

L. T. Quigley
Ed Taylor
Carl Stockbridge

J. W. Palmer
Sterling Colton, Greyson R.D.
William H. Keershaw

Rudolph Mellenthin
Fred Strong
Lawrence Adams

LA SAL R.D.

W. E. Tangren, 1921
H. A. Tangren, 1923-1924

MESA R.D.

L. T. Quigley, 1922-1925

MONTICELLO R.D.

L. E. Quigley, 1921
Carrol J. Meador, 1922-1924
H. R. Tangren, 1925
Robert H. Park, 1926-1927
H. H. Van Winkle, 1928-1929
Ivan Christensen, 1930-1939
Ralph Jensen, 1939-1944

GREYSON R.D.

M. P. Hunt, 1921-1926

1925: Mesa and La Sal R.D.'s merged to form:

MESA-LA SAL R.D.

S. Cooper Smith, 1926-1930
A. J. Wagstaff, 1931-1934
Owen Despain, 1935-1948 **

1927: Greyson R.D. renamed:

BLANDING R.D.

M. P. Hunt, 1927-1937
A. L. Brewer, 1938-1940
J. E. McDonald, 1941-1944

1957: Mesa La Sal R.D. renamed:

MOAB R.D.

O. David Hansen, 1949-1958
Robert B. Terrill, 1957-1958
John K. Stithem, 1959-1981
John L. Hougaard, 1982-1985
Dahl H. Zohner, 1986-1979
Raymon Carling, 1979-1989
Jerry B. Shaw, 1989-Present

1944 ** *Blanding Ranger District merged with Monticello Ranger District. District referred to as:

MONTICELLO R.D.

Julian Thomas, 1944-1957
G. LeGrand Olson, 1957-1966
Don F. Nebeker, 1967
Roy S. Verner, 1968-1977
Bryant L. Christensen, 1977-1980
Ron Dickemore, 1980-1934
Robert L. Day, 1984-1987
Lee H. Bennett, 1987-1993

1945-1948: Blanding and Monticello Ranger Districts consolidated.

** Administrative responsibilities for Moab and Monticello Ranger Districts were assigned to Uinta National Forest, 1946-1948, as disposition of District/Forest administration organization was discussed and decided.

* Manti and La Sal Forests were merged in 1949 to form Manti-La Sal National Forest.

GREAT BASIN STATION
Directors, Project Leaders, and Administrators of the Station*

| <u>Line Officer</u> | <u>Title</u> | <u>Dates</u> | <u>Facility Designation</u> |
|---|------------------------|--------------|---------------------------------------|
| Arthur W. Sampson | Director | 1912-1918 | Utah Experiment Station |
| | | 1918-1922 | Great Basin Experiment Station |
| C. L. Forsling | Director | 1922-1930 | Great Basin Experiment Station |
| | | 1930-1934 | Great Basin Branch Experiment Station |
| Raymond Price | Forest Ecologist | 1935-1937 | Great Basin Branch Experiment Station |
| Lincoln Ellison | Forest Ecologist | 1938-1947 | Great Basin Branch Experiment Station |
| A. Perry Plummer ¹ | Project Leader | 1947-1970 | Great Basin Research Center |
| | | 1970-1977 | Great Basin Experimental Range |
| James P. Blaisdell and E. Durant McArthur ² | Acting Project Leaders | 1977-1979 | Great Basin Experimental Range |
| Arthur R. Tiedemann | Project Leader | 1979-1983 | Great Basin Experimental Range |
| E. Durant McArthur | Project Leader | 1983-Present | Great Basin Experimental Range |

The 'Great Basin Experiment Station' (GBS) has had several names since its creation in 1912. Since 1970, it has officially been known as the Great Basin Experimental Range (GBER) and continues under that designation. The headquarters' complex of buildings and grounds is now known as the Great Basin Environmental Education Center, but GBER continues as a viable entity of some 4,500 acres separate from the Education Center. The table above outlines the various names of the GBS and the Forest Service line officers responsible for its administration and tenures for both the GBS names and line officers.

¹ Sometime during A. Perry Plummer's tenure as administrator of the GBS, the official designation changed from Great Basin Branch Experiment Station to Great Basin Research Center, and his title changed from Research Center Leader to Project Leader.

² From 1977 until 1979, both Blaisdell and McArthur served as Acting Project Leader; McArthur had responsibility for the day-by-day administration of the GBS.

* Information in this table was generously provided by E. Durant McArthur, Project Leader, USDA Forest Service, Intermountain Research Station, Provo, Utah.

GLOSSARY

| | |
|-----------------------------|---|
| Allotment | A designated area where livestock are authorized to graze by permit. |
| C & H | Refers to a cattle and horse allotment. |
| Common Use | Areas where both sheep and cattle graze the same range. |
| Contour trenched (furrowed) | Waterholding structures, usually made by mechanical means, to store water while vegetation becomes established. These structures are laid out on the contour to stop continued down cutting and displacement of soil. Furrows are small. Trenches are larger. |
| Exclosure / enclosure | A fenced-in area to prevent disturbance and grazing by livestock and big game. |
| Groundcover | All vegetation, litter and rocks that cover the soil. |
| Hummocking | The crown of the plant is above the soil (uplifted) or the soil has eroded away leaving the crown above the surface. |
| S & G | Refers to a sheep and goat allotment. |
| RAA studies | Range allotment analysis. Includes the vegetation transects and soil evaluation used to determine range conditions. |
| 3-Step transect | A permanent study plot to measure changes in vegetation. The three steps are: (1) photographs; (2) transect data and (3) summary of data. |

PLANT NAME GLOSSARY

| | |
|---------------------------|--|
| <i>Artemisia</i> | Genus name for sagebrush. |
| <i>Artemisia discolor</i> | A herbaceous sagebrush. It's now called <i>A. ludoviciana</i> . |
| Bitterbrush | <i>Purshia tridentata</i> (a perennial shrub highly desired by deer). |
| Carex | Sedge, grasslike plants. |
| Dandelion | <i>Taraxacum officinale</i> . |
| Elderberry | The blue fruited one is <i>Sambucus caerulea</i> and the red fruited one is <i>Sambucus racemosa</i> . |
| Geranium | Probably <i>Geranium viscosissimum</i> , pink flowered. |
| Gooseberry | Gooseberry or current. Name is used interchangeably. The one growing at higher elevations is <i>Ribes montigenum</i> . |
| Intermediate wheatgrass | <i>Agropyron intermedium</i> . |
| Iris | <i>Iris missouriensis</i> . |
| Jacob's ladder | Common name for genus <i>Polemonium</i> . |
| Letterman's needlegrass | <i>Stipa lettermanii</i> . |
| Louisiana sage | <i>Artemisia ludoviciana</i> , a herbaceous sage. |
| Lupine | Of the genus <i>Lupinus</i> ; five different species grow on the Forest. |
| Mountain brome | <i>Bromus carinatus</i> . |
| Onion grass | <i>Melica bulbosa</i> or <i>M. spectabilis</i> . |
| Penstemon | A genus of herbaceous plants; 31 different species are known to occur on the Forest. |
| Pigweed or goose foot | Member of the <i>Chenopodiaceae</i> family. |
| Poa | Kentucky bluegrass; <i>Poa pratensis</i> , is the most common. |
| Smooth brome | <i>Bromus inermis</i> . |
| Snowberry | <i>Symphoricarpos oreophilus</i> , mountain snowberry. |
| Stipa | A genus in the grass family. The higher elevation reference is to <i>Stipa lettermannii</i> . |
| Tarweed | <i>Madia glomerata</i> , a tar-scented, undesirable annual weed. |
| Veratrum | False hellebore/skunk cabbage; <i>Veratrum californicum</i> . |
| Western cone flower | <i>Rudbeckia occidentalis</i> . |
| Wheatgrass | A genus in the grass family. |
| Wild carrot | <i>Ligusticum</i> . |
| Yarrow | <i>Achillea millefolium</i> var. <i>lanulosa</i> . |

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SOURCES OF PERSONAL COMMUNICATION:

| | |
|-------------------|--|
| Butler, James | Retired Manti-La Sal National Forest Staff Officer. |
| Christensen, Reed | Retired Manti-La Sal National Forest Supervisor. |
| Francis, Vaughn | Retired Manti-La Sal National Forest District Ranger. |
| Frandsen, A. Joel | Range, Watershed, Timber and Fire Management Staff Officer, Manti-La Sal National Forest. |
| Haaser, Karl | Retired Manti-La Sal National Forest District Ranger. |
| Harber, Dale | Geologist, Manti-La Sal National Forest. |
| Kelly, Dennis | Forest Hydrologist, Manti-La Sal National Forest. |
| Lewis, Mont | Retired, Manti-La Sal National Forest. |
| Thomas, Julian | Retired Manti-La Sal National Forest District Ranger. |
| Vasten, John | Forester, Manti-La Sal National Forest. |

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