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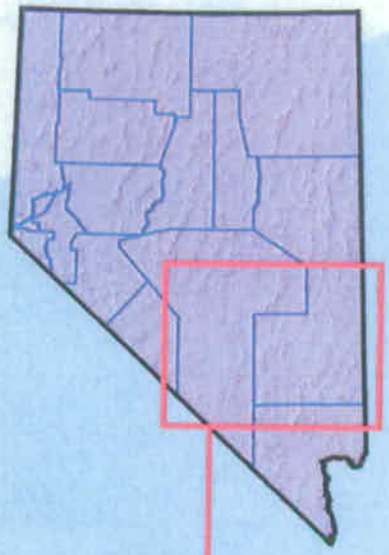
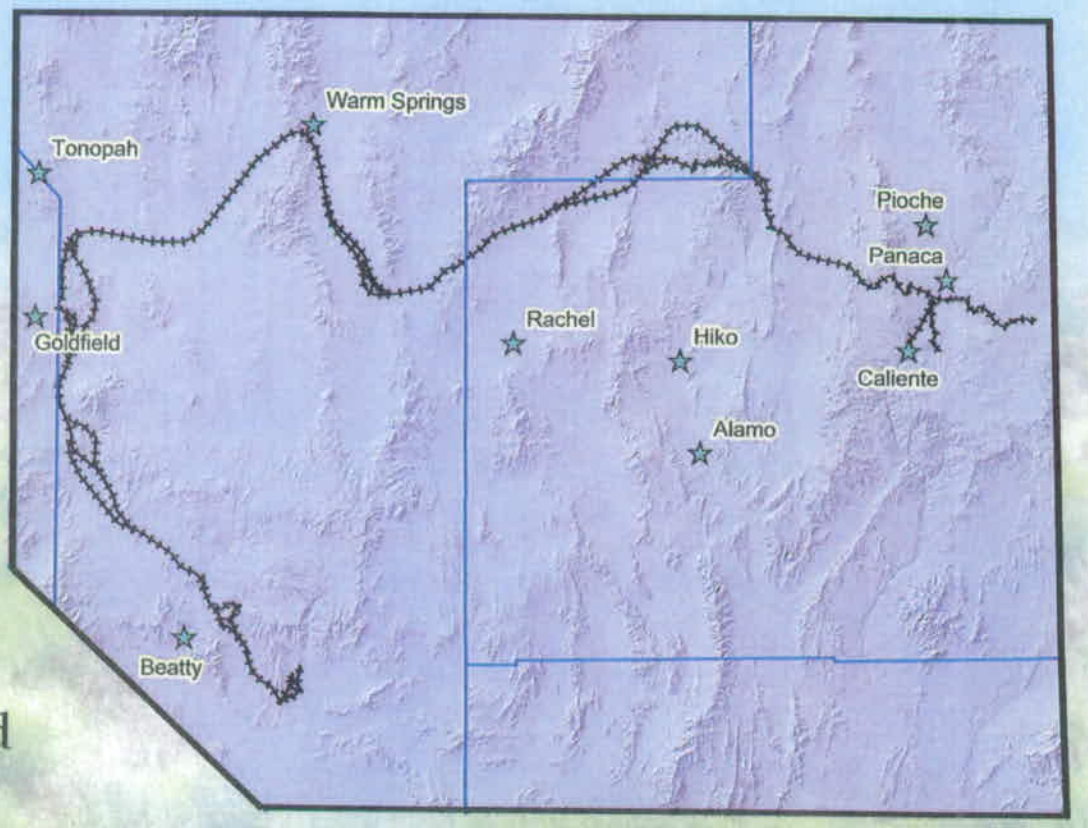


PROPOSED YUCCA MOUNTAIN CORRIDOR

AFFECTED GRAZING PERMITTEES

May 2005



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PROPOSED YUCCA MOUNTAIN CORRIDOR

AFFECTED GRAZING PERMITTEES

MAY 2005

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Executive Summary

This report is the result of a contract issued by the Bureau of Land Management (BLM) Ely Field Office to Resource Concepts, Inc. (RCI) concerning a railroad corridor proposed by the Department of Energy (DOE) to transport spent nuclear fuel from Caliente, Nevada to a repository at Yucca Mountain, Nevada. The purpose of the contract was to identify and communicate with BLM grazing permit holders who may be affected by the construction and use of the corridor. Issues, concerns and suggested alternatives noted by the permittees were to be recorded in a scoping report prepared by the contractor.

The proposed corridor will pass through, or come into contact with, 38 grazing allotments. Six of the allotments are vacant with no grazing permit currently issued. The permittees for the remaining 32 allotments have been interviewed and the allotments examined as necessary to fulfill the contract purpose. Individual allotment reports provide the impacts reported by the permittees, as well as their suggestions for mitigation of the impacts. These impacts and mitigation are compiled and summarized project wide.

The permittees universally expressed feelings of resentment and distrust that they had been excluded from the planning process that led to the selection of the Caliente to Yucca Mountain corridor. The Permittees represent a group of people that is widely dispersed in remote areas with relatively primitive forms of communication in comparison to presently available technology. Contacting them is difficult at best, a fact demonstrated by how little of the public notification reached the permittees throughout the selection process for the railroad corridor. It is noteworthy that DOE apparently fulfilled all their legal requirements for public notification, but the notification was also apparently ineffective with this group. Consideration should be given to reaching beyond, and not relying on, conventional and minimum required forms of public notification for this rural and widely dispersed group as the corridor planning process progresses.

The greatest fear that prevails with these permittees is that they will not be granted the opportunity to meet onsite with the railroad planners and their BLM official to work out the details of the type, design, and location of mitigation projects. In their view, fences, gates, water developments, cattleguards, crossings, roads, and corridor location require joint discussion and planning to assure that site specific needs for their individual circumstances are factored in. Nothing that has transpired to date has given the permittees any reassurance that they will be included in the planning process. Action from DOE on this issue would eliminate a significant amount of suspicion and resistance.

The permittees have a great deal at stake from their point of view. For many, it is their exclusive livelihood; for most, it is the only way of life they have known. Although the corridor traverses predominantly public land, there are substantial private property rights at stake. The corridor impacts 176 stockwaters including seventeen stockwater pipelines. The Nevada Division of Water Resources under Nevada State Water Law ~~authorizes these developments.~~ allocates water rights They are private property rights, and Federal ~~laws~~ policy recognize state supremacy in the matter of stockwater rights. Of the impacted stockwaters and pipelines, 108 of the stockwaters and fourteen of the pipelines are simultaneously water base property under the Taylor Grazing Act. These constitute an additional layer of private property rights on top of the state water rights, which increases the value. There is more at stake than meets the eye.

allocates water rights

policy

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APPENDICES

Appendix A Tonopah Resource Management Plan and Record of Decision
Appendix B Sample Permittee Information Packet

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[May 20, 2005]

1.0 INTRODUCTION

This report is the product of a contract issued to Resource Concepts, Inc. (RCI) by the Bureau of Land Management (BLM) Ely Field Office. The contract required identifying and communicating with grazing permittees who may be affected by the construction, use, and maintenance of the proposed Caliente to Yucca Mountain Corridor, a segment of the rail line the Department of Energy (DOE) has proposed to transport nuclear waste to a nuclear repository at Yucca Mountain.

The purpose of the permittee contacts was to determine and report their concerns about impacts to their livestock grazing operations and interests, as well as suggestions for mitigation and alternatives. The scope of work excluded impacts to wild horses or other wildlife, and socio-economic impact analyses related to the grazing operations. The BLM grazing administration responsibilities for the railroad route are divided between three field offices: Ely/Caliente, Las Vegas, and Battle Mountain/Tonopah.

1.1 HISTORY

Generally speaking, the rangelands along the proposed railroad route are productive and are grazed by cattle and sheep. Much of the affected rangeland has a major component of white sage (*Ceratoides lanata*; aka winterfat), a highly desirable winter livestock forage with high protein content similar to alfalfa. In addition there are other native desert shrubs and grasses that are also highly nutritious livestock forage. The proposed railroad will cross through several highly productive valley bottoms, which are some of the most productive in Nevada.

In the early days of the Nevada sheep industry, much of this region was treasured winter range for the migrant sheep bands that summered far to the north. With the decline of the sheep industry, many of the grazing permits issued by the BLM have been converted from sheep to cattle. Seven of the 40 grazing permits are currently for sheep grazing. Now predominantly grazed by cattle, this region is still highly productive and still valued as livestock winter range.

1.2 GRAZING PERMITS

There are a few scattered parcels of private land in the vicinity of the proposed route, but the vast majority of the land that would be impacted is public land administered by the BLM. There are a total of 38 grazing allotments through which the railroad is proposed to pass, however six of the allotments currently are vacant and have no grazing permits. Impacts were not addressed for the vacant allotments in this report, however they will be addressed in the BLM Environmental Impact Statement (EIS).

The remaining 32 allotments were examined in detail for this report, utilizing onsite observations and interviews with the permittees. Some allotments have more than one permittee, and some permittees have grazing permits in more than one allotment. Currently, there are a total of 40 grazing permits issued by the BLM for the 32 potentially impacted allotments.

Table 1.1 details information about each allotment, including BLM jurisdiction.

Table 1.1 Proposed Caliente to Yucca Mountain Railroad Affected Allotments

Allotment Information				
No.	Name	Permittee	Contact	BLM Office
1	Uvada	Kenneth D. Lee	Kenneth D. Lee	Caliente
2	Sheep Springs	H. Bruce Cox & Mervyn K. Cox	Todd Wright	Caliente
3	Rabbit Spring	John and Lee Mathews	John and Lee Mathews	Caliente
4	Buckboard Spring	Lewis & Wendell Mathews	Wendell Mathews	Caliente
5	Panaca Cattle	-Lewis & Wendell Mathews -Orren J. Nash	-Wendell Mathews -Orren J. Nash	Caliente
6	Clover Creek	-Roger Dieleman -National Mustang Assoc.	-Roger Dieleman -Richard Sewing	Caliente
7	Little Mountain	National Mustang Assoc.	Richard Sewing	Caliente
8	Peck	7J Ranch	Henry Brackenbury	Caliente
9	Oak Springs	Delamar Valley Cattle	Merlin Flake	Caliente
10	Caliente	Charles Culverwell Estate	Chuck Culverwell	Caliente
11	Highway	7J Ranch	Henry Brackenbury	Caliente
12	Rocky Hill	No Permittee	N/A	Caliente
13	Comet	Ray Thompson	Ray Thompson	Caliente
14	Bennett Spring	-Brad Guyman -Thomas L & Warren Williams	-Brad Guymon -Thomas Williams	Caliente
15	Highland Peak	Brent Hunter	Brent Hunter	Caliente
16	Black Canyon	-Brad Guyman -Thomas L. & Warren Williams	-Brad Guymon -Thomas Williams	Caliente
17	Ely Springs Cattle	Laird Whipple	Laird Whipple	Caliente
18	Rattlesnake	Dean Carter & Sons	Dean Carter	Caliente
19	Thorley Use Area	Bulloch Bros.	Matt Bulloch	Caliente
20	Deadman Use Area	-Blue Diamond Oil Co. -El Tejon Cattle Co.	-Gary Sprouse -Melchor Gragerine	Ely
21	Timber Mountain	Blue Diamond Oil Co.	Gary Sprouse	Ely
22	Sunnyside	Bruce and Pamela Jensen	Bruce and Pamela Jensen	Ely
23	Needles	Double U Livestock, LLC	Wade West	Ely
24	Coal Valley Lake	-Blue Diamond Oil Co. -Charles & Clayton Wadsworth -Thomas W. Steele	-Gary Sprouse -Charles Wadsworth -Robert Steele	Caliente
25	Batterman Wash	Gracian Uhalde	Gracian Uhalde	Ely
26	Pine Creek	Thomas W. Steel	Robert Steele	Caliente
27	Cottonwood	Kay Wright Ranch LLC	Rocky and Linda Hatch	Caliente
28	McCutcheon Sp.	Kay Wright Ranch LLC	Rocky and Linda Hatch	Caliente
29	Sand Springs	Tempiute Grazing Association	Dirk and Marta Agee	Caliente
30	Reveille	½ Fallini; ½ Fallini Living Trust	Joe Fallini	Tonopah
31	Stone Cabin	-Colvin & Son, LLC -Stone Cabin Partnership	-Al Stenninger -Roy Clifford	Tonopah
32	Ralston	No Permittee	N/A	Tonopah
33	Montezuma North	No Permittee	N/A	Tonopah
34	Magruder Mountain	No Permittee	N/A	Tonopah
35	Montezuma South	No Permittee	N/A	Tonopah
36	Razorback	Fleur de Lis Ranch	Paul Holcher	Tonopah
37	Springdale 2	George and Larene Younghans	George Younghans	Tonopah
38	Unused	No Permittee	N/A	Las Vegas

2.0 APPROACH

2.1 PERMITTEE CONTACT AND REVIEW PROCESS

The Proposed Yucca Mountain Corridor was superimposed on a map of the BLM grazing allotments. The allotment records were examined to identify the permit holders and the permit specifications, and to determine all possible contact information. The 31 permittees reside in eight widely distributed Nevada communities: Alamo, Caliente, Ely, Fallon, Hiko, Las Vegas, Panaca, and Pioche. There are also permittees in Bakersfield, California, Cedar City, Utah, and Ritter, Oregon. Several of the permittees reside on remote ranches, and therefore have limited communication capabilities. Two of the permittees retrieve their mail once a week. Determining whom to contact and by what means was a daunting task.

The use of group or public meetings was found to be ineffective for communicating with the permittees, given their locations in remote areas, work schedules, and amount of travel necessary to appear at meetings. An information package about the railroad and the RCI contract was mailed to all 31 permittees to alert them to the project and to aid the permittees in identifying potential impacts from the construction, use, and maintenance of the proposed railroad, as well as mitigation measures the permittees might choose to suggest. The package included a memorandum introducing the permittees to the general concept and timeline of the project, an analysis framework, maps with the proposed corridor and existing range improvements, as well as a copy of their term permit. In addition to the allotment specific information, an example of an analysis process was included for guidance. A sample information package is included in Appendix B. In general, the permittees were requested to use the materials to perform the following tasks:

- Identify and map inaccurate and omitted range improvements.
- Identify and map potentially impacted base properties (both land and water).
- Identify potential impacts to the allotment, resources, improvements, and grazing permit.
- Identify alternatives to mitigate potential impacts of the railroad.
- Participate in an on-site meeting with the contractors.

The permittees were contacted by phone to arrange a personal interview and tour of the allotment if appropriate. Interviews were conducted during December 2004 and January 2005 by three interviewers with extensive knowledge of Nevada's rangelands, range-livestock operations, rangeland improvement projects, and BLM grazing administration. The combined knowledge and experience of the interviewers was key to gathering adequate and accurate knowledge and information about each allotment for the analyses provided this report. Using detailed allotment field maps, the interviewers were able to obtain sufficient information to prepare preliminary draft allotment-specific reports. The draft reports were returned to the permittees for review and comment. Numerous telephone conversations were also conducted in order to fine-tune the information and its presentation in this report. Thus, the permittees were given ample opportunity to ensure that this report accurately reflects the existing situation and their concerns regarding impacts from the proposed railroad to their allotment and grazing operation.

The allotment-specific reports were then assembled in a manner that enabled project-wide compilation of impacts and mitigation data for summarization in this report, and use in the related EIS.

Sections 3.1 through 3.5 of this report address grazing allotments, fencing, stockwater, water rights, and base property, all complex subjects of major concern to the permittees. As such, the topics warrant explanation of their importance and the manner in which they are treated in this report.

Sections 3.6 through 3.11 address soil surveys, disturbed area rehabilitation, invasive species, wildfire, grazing management planning, and maintenance. The interviewers found these topics to be of concern based on questions and statements from the permittees such as the following:

- "Does DOE understand the nature of desert soils?"
- "Will DOE attempt to disturb the least amount of area possible during construction?"
- "When weeds are introduced they can cause an invasion."
- "Will DOE be careful and aware of fire safety, prevention, and control?"
- "How will our grazing management plans be addressed, and by whom, both during and after construction?"
- "Who will be responsible for maintenance when construction is completed and DOE is gone?"

In order to be responsive to such questions and concerns, and to fulfill the scope and purpose of this report, RCI chose to convert these statements of concern into sections to be addressed in the report. RCI utilized prior knowledge and experience with grazing interests in Nevada to interpret the concerns and translate them into workable topics for inclusion in the report.

2.2 BASE MAPPING AND DATA COLLECTION

Geographic Information System (GIS) specialists compiled datasets from various sources and overlaid them on a series of base layers to display elements critical to the analysis process. Data sources for the maps included the Bureau of Land Management, the Nevada Department of Transportation, United States Geological Survey, USDA-Natural Resources Conservation Service, U.S. Census Bureau, and the DOE Office of National Transportation. Additional datasets were created through the interview process and by analyzing affected livestock grazing operations. The major datasets and sources utilized are summarized in Table 2.2.1.

Table 2.2.1 Primary Datasets and Sources Utilized in the Yucca Mountain Corridor – Affected Grazing Permittee Analysis Process

SPATIAL DATASET	DATA SOURCE
Land Ownership	BLM Nevada State Office Mapping Services
Grazing Allotments	BLM Nevada State Office Mapping Services
Rangeland Improvement and Operation Data	BLM – Ely Field Office
Digital Topographic Maps	US Geological Survey
Permittee Preferences and Mitigation Projects	Field Interviews
Tertiary and Questionable Roads	'TIGER' Census data 2000 – US Census Bureau
Highways, County, and BLM Roads	Nevada Department of Transportation – Dept. of Location
Soil Survey Areas and Status	USDA-Natural Resources Conservation Service
Proposed Railroad Alignment	DOE – Office of National Transportation

For the sake of consistency, these databases were utilized to calculate all acreages, lengths, and counts of landscape and allotment-scale attributes. For this reason the values that are found within this report are not entirely consistent with the values found within the BLM Land Use Plans, Final Multiple Use Decisions, and Resource Management Plans.

3.0 ISSUES AND IMPACTED FEATURES

3.1 GRAZING ALLOTMENTS

Thirty-eight (38) grazing allotments were identified that could potentially be affected by the Proposed Yucca Mountain Corridor. Six of the allotments do not currently have a grazing permit issued. The remaining 32 allotments have one or more grazing permits, and have been examined in depth. There are a total of 40 grazing permits. Allotment specific analyses are included in Section 5.0 of this report for all 38 allotments. See Figure 3.1 for details of the affected allotments.

The allotments are numbered from 1 to 38 starting at the Utah state line and continuing westerly through Nevada to Yucca Mountain. There are three alternate starting points for the proposed railroad that converge near Panaca, where the first Common Segment begins The numbering begins with the Crestline Option, then the Eccles Option, and finally the Caliente Option, before continuing west along the Common Segment.

Table 3.1.1 provides details on the allotment names, permittee names, contact names, and the class of stock grazed for each allotment. Seven of the permits allow sheep grazing, three permit both sheep and cattle grazing, and thirty permit cattle grazing.

Table 3.1.2 provides allotment acreages, rail lengths, and right-of-way acreages for each respective allotment. The rail length and right-of-way acreages are provided for each route as they traverse each allotment.

Table 3.1.3 provides the Permitted Use for all the permitees, by allotment. Permitted Use includes active AUMs that BLM currently authorizes for use, and suspended AUMs that are part of the permittees recognized allocation but are currently unavailable for use. There will usually be a slight variation between the active permitted use AUM's and the licensed AUM's caused by the mathematical calculation and rounding error.

There are numerous alternative routes detailed in several allotments, resulting in the need for analyzing multiple combinations of routes in these particular allotments. This adds significantly to the complexity of the analysis. The impacts and mitigation measures were analyzed and tallied for every combination of proposed alternatives, plus the additional proposed alternatives (Mitigatory Routes) suggested by the permittees. The Needles and Razorback Allotments both had five combinations of proposed routes each to analyze, and the Comet Allotment had six.

The maps and documents furnished to RCI by DOE named some of the alternative routes. Others were not named. The DOE names were used where they existed. The unnamed alternatives were given names by RCI.

Table 3.1.1 Class of Livestock Grazed

ALLOTMENT INFORMATION				
NO.	NAME	PERMITTEE	CONTACT	CLASS OF STOCK
1	Uvada	Kenneth D. Lee	Kenneth D. Lee	Cattle
2	Sheep Springs	H. Bruce Cox & Mervyn K. Cox	Todd Wright	Cattle
3	Rabbit Spring	Garth Jensen	John and Lee Mathews	Cattle
4	Buckboard Spring	Lewis Wendell Mathews	L. Wendell Mathews	Cattle
5	Panaca Cattle	-Lewis Wendell Mathews -Orren J. Nash	-L. Wendell Mathews -Orren J. Nash	Cattle Cattle
6	Clover Creek	-Roger Dieleman -National Mustang Assoc.	-Roger Dieleman -Richard Sewing	Cattle Cattle
7	Little Mountain	National Mustang Assoc.	Richard Sewing	Cattle
8	Peck	7J Ranch	Henry Brackenbury	Cattle
9	Oak Springs	Delamar Valley Cattle	Merlin Flake	Cattle
10	Caliente	Charles Culverwell Estate	Chuck Culverwell	Cattle
11	Highway	7J Ranch	Henry Brackenbury	Cattle
13	Comet	Ray Thompson	Ray Thompson	Cattle
14	Bennett Spring	-Brad Guymon -Thomas L & Warren Williams	-Brad Guymon -Thomas Williams	Sheep Sheep
15	Highland Peak	Brent Hunter	Brent Hunter	Sheep
16	Black Canyon	-Brad Guymon -Thomas L. & Warren Williams	-Brad Guymon -Thomas Williams	Sheep Sheep
17	Ely Springs Cattle	Laird Whipple	Laird Whipple	Cattle
18	Rattlesnake	Dean Carter & Sons	Dean Carter	Cattle
19	Thorley Use Area	Bulloch Bros.	Matt Bulloch	Cattle
20	Deadman Use Area	-Blue Diamond Oil Co. -El Tejon Cattle Co.	-Gary Sprouse -Melchor Gragerine	Sheep/Cattle Sheep
21	Timber Mountain	Blue Diamond Oil Co.	Gary Sprouse	Cattle
22	Sunnyside	Bruce and Pamela Jensen	Bruce and Pamela Jensen	Cattle
23	Needles	Double U Livestock, LLC	Wade West	Sheep/Cattle
24	Coal Valley Lake	-Blue Diamond Oil Co. -Charles & Clayton Wadsworth -Thomas W. Steele	-Gary Sprouse -Charles Wadsworth -Robert Steele	Sheep Cattle Cattle
25	Batterman Wash	Gracian Uhalde	Gracian Uhalde	Sheep/Cattle
26	Pine Creek	Thomas W. Steel	Robert Steele	Cattle
27	Cottonwood	Kay Wright Ranch LLC	Rocky and Linda Hatch	Cattle
28	McCutcheon Sp.	Kay Wright Ranch LLC	Rocky and Linda Hatch	Cattle
29	Sand Springs	Tempiute Grazing Association	Dirk and Marta Agee	Cattle
30	Reveille	½ Fallini; ½ Fallini Living Trust	Joe Fallini	Cattle
31	Stone Cabin	-Colvin & Son, LLC -Stone Cabin Partnership	-Al Stenninger -Roy Clifford	Cattle Cattle
36	Razorback	Fleur de Lis Ranch	Paul Holcher	Cattle
37	Springdale 2	George and Larene Younghans	George Younghans	Cattle

Table 3.1.2 Proposed Yucca Mountain Corridor Affected Allotment Acreages

No.	Name	Total Allotment Acreage [1]	Public Land Acreage [2]	Private Acreage [3]	Route Name	Segment Length (mi) [4]	R/W Acreage [5]
1	Uvada	11,244	11,244	0	Crestline	0.82	21
2	Sheep Springs	30,365	30,284	82	Crestline	10.75	269
3	Rabbit Spring	20,766	20,646	120	Crestline	1.41	35
4	Buckboard Spring	10,686	10,686	0	Crestline	3.71	93
5	Panaca Cattle	15,959	15,930	28	Crestline	5.58	140
6	Clover Creek	22,784	22,538	246	Eccles	0.79	20
7	Little Mountain	18,621	18,386	234	Eccles	3.47	87
8	Peck	14,584	13,291	1,292	Eccles	5.30	133
					Caliente	2.13	53
					Mitigatory Route (Eccles)	5.64	141
9	Oak Springs	197,933	193,679	4,031	Caliente	3.04	76
10	Caliente	1,858	1,584	273	Caliente	0.00	0
					Antelope Alternative	1.40	35
11	Highway	4,251	3,884	367	Caliente	0.00	0
12	Rocky Hill	5,274	4,243	1,031	Common Segment	0.12	3
					Mitigatory Route A	1.75	44
					Mitigatory Route B	2.61	65
13	Comet	21,175	10,553	10,622	Crestline	4.93	123
					Eccles	3.03	76
					Caliente	7.21	180
					Common Segment	2.40	60
					Mitigatory A	2.00	50
14	Bennett Spring	48,849	48,677	169	Common Segment	10.27	257
					Mitigatory Route A	5.93	148
					Antelope Alternative A or B	7.00	175
15	Highland Peak	51,741	48,555	3,186	Common Segment	0.00	0
16	Black Canyon	8,636	8,636	0	Common Segment	3.42	86
					Mitigatory – A1	3.00	75
					Mitigatory – A2	2.65	66
17	Ely Springs Cattle	57,846	57,240	606	Common Segment	11.46	287
					Mitigatory – A1	13.10	328
					Mitigatory – A2	12.97	324
18	Rattlesnake	34,946	34,946	0	Common Segment	0.98	25
19	Thorley Use Area	40,519	40,519	0	Common Segment	6.64	166
20	Deadman Use Area	42,373	42,373	0	WR2	8.47	212
					WR1	11.28	282
					Mitigatory Route	10.73	268
21	Timber Mountain	43,839	43,839	0	WR1	6.49	162
					WR2-A	6.76	169
					WR2-B	7.05	176

No.	Name	Total Allotment Acreage [1]	Public Land Acreage [2]	Private Acreage [3]	Route Name	Segment Length (mi) [4]	R/W Acreage [5]
22	Sunnyside	237,391	224,508	4,234	WR1	10.90	273
					WR2-A	5.13	128
					WR2-B	2.02	51
23	Needles	85,498	84,567	931	WR1 - GV1	13.46	337
					WR2 - GV2	15.72	393
					WR1 - GV2	13.30	333
					WR2 - GV1	16.65	416
					Mitigatory Route	14.24	356
24	Coal Valley Lake	115,174	115,174	0	GV2	0.78	20
25	Batterman Wash	41,475	41,035	440	GV1	5.42	136
26	Pine Creek	34,865	33,221	1,617	GV1	4.70	118
					GV2	9.58	240
					Mitigatory Route	13.80	345
27	Cottonwood	41,437	41,135	302	GV1	4.42	111
					GV2	5.14	129
28	McCutcheon Sp.	18,102	18,061	40	Common Segment	6.47	162
29	Sand Springs	239,664	231,907	7,757	Common Segment	13.38	335
30	Reveille	659,365	656,768	2,598	East	47.28	1,182
					Central	47.60	1,190
					West	48.71	1,218
31	Stone Cabin (Clifford)	396,243	391,735	4,509	Common Segment	28.39	710
31	Stone Cabin (Colvin)						
32	Ralston	387,328	381,607	5,722	ML2	19.66	492
					ML1	18.62	466
33	Montezuma (North)	385,744	366,849	16,280	ML2 - GF2	36.75	919
					ML1 - GF1	36.99	925
34	Magruder Mountain	674,852	667,671	7,181	BC1	15.69	392
35	Montezuma (South)	232,934	224,596	7,706	BC2 - BW2	20.00	500
					BC1 - BW1	18.85	471
					BC2 - BW1	19.78	495
					BC1 - BW2	19.07	477
36	Razorback4	72,400	71686	714	OV1 - North Common Segment	6.57	164
					OV2 - North Common Segment	6.8	170
					BW2 – South Common Segment	17.78	445
					BW1 – South Common Segment	12.00	300
					Mitigatory Route	9.82	246
37	Springdale 2	1,255	1,255	0	OV1	0.00	0
38	Unused	526,522	492,314	34,208	Common Segment A	10.90	273
					Common Segment B	9.89	247

[1] Acreages calculated from using the BLM Nevada – Grazing Allotment and Land Ownership shapefiles.
[2] Segment Lengths were calculated using the BLM Nevada – Grazing Allotment and the DOE Office of National Transportation – Proposed Railroad Alignment shapefiles.
[3] R/W Acreages were calculated as an approximate quantity based on a 200-foot right-of-way.
[4] The Razorback Allotment segment lengths and right-of-way acreages were calculated for each leg of the proposed route due to the spatial nature of the legs entering and exiting the allotment. See Section 5.36.3 for further explanation.

Table 3.1.3 Permitted Use

ALLOTMENT INFORMATION					
No.	Name	Permittee	Active	Suspended	Total
1	Uvada	Kenneth Lee	463	1,317	1,780
2	Sheep Springs	Bruce/Mervyn Cox	409	2,231	2,640
3	Rabbit Spring	Garth Jensen	884	1,115	1,999
4	Buckboard Spring	Lewis Wendell Mathews	263	88	351
5	Panaca Cattle	-Lewis Wendell Mathews -Orren Nash	163 290 Total-453	85 153 Total-238	248 443 Total-691
6	Clover Creek	-Roger Dieleman -National Mustang Assoc.	447 166 Total-613	357 137 Total-494	804 303 Total-1,107
7	Little Mountain	National Mustang Assoc.	400	0	400
8	Peck	7J Ranch	397	346	743
9	Oak Springs	Delamar Valley Cattle	9,268	5,729	14,997
10	Caliente	Charles Culverwell Estate	40	8	48
11	Highway	7J Ranch	118	20	138
13	Comet	Lom Thompson	214	40	254
14	Bennett Spring	-Brad Guymon -Thomas/Warren Williams	1,992 1,506 Total-3,498	1,518 1,149 Total-2,667	3,510 2,655 Total-6,165
15	Highland Peak	Brent Hunter	3,704	804	4,508
16	Black Canyon	-Brad Guyman -Thomas/Warren Williams	770 335 Total-1,105	176 88 Total-264	946 423 Total-1,369
17	Ely Springs Cattle	Laird Whipple	4,248	600	4,848
18	Rattlesnake	Dean Carter & Sons	1,180	324	1,504
19	Thorley Use Area	Bulloch Bros.	1,271	529	1,800
20	Deadman Use Area	-Blue Diamond Oil Co. -El Tejon Cattle Co.	1,787 445 Total-1,232	823 0 Total-823	2,610 445 Total-3,055
21	Timber Mountain	Blue Diamond Oil Co.	2,368	0	2,368
22	Sunnyside	Bruce/Pamela Jensen	5,402	0	5,402
23	Needles	Double U Livestock, LLC	2,679	0	2,679
24	Coal Valley Lake	-Blue Diamond Oil Co. -Charles/Clayton Wadsworth -Thomas Steele	395 1,769 2,657 Total-4,821	0 0 0 0	395 1,769 2,657 Total-4,821
25	Batterman Wash	Gracian Uhalde	2,093	0	2,093
26	Pine Creek	Thomas Steel	2,667	0	2,667
27	Cottonwood	Kay Wright Ranch LLC	1,177	1,839	2,016
28	McCutcheon Sp.	Kay Wright Ranch LLC	446	0	446
29	Sand Springs	Tempiute Grazing Association	7,005	2,995	10,000
30	Reveille	½ Fallini/½ Fallini Living Trust	25,730	0	25,730
31	Stone Cabin	-Stone Cabin Partnership -Colvin & Son, LLC	1,990 11,973 Total-13,963	1,165 417 Total-1,582	3,155 12,390 Total-15,545
36	Razorback	Fleur de Lis Ranch	959	385	1,344
37	Springdale 2	George/Larene Younghans	24	0	24

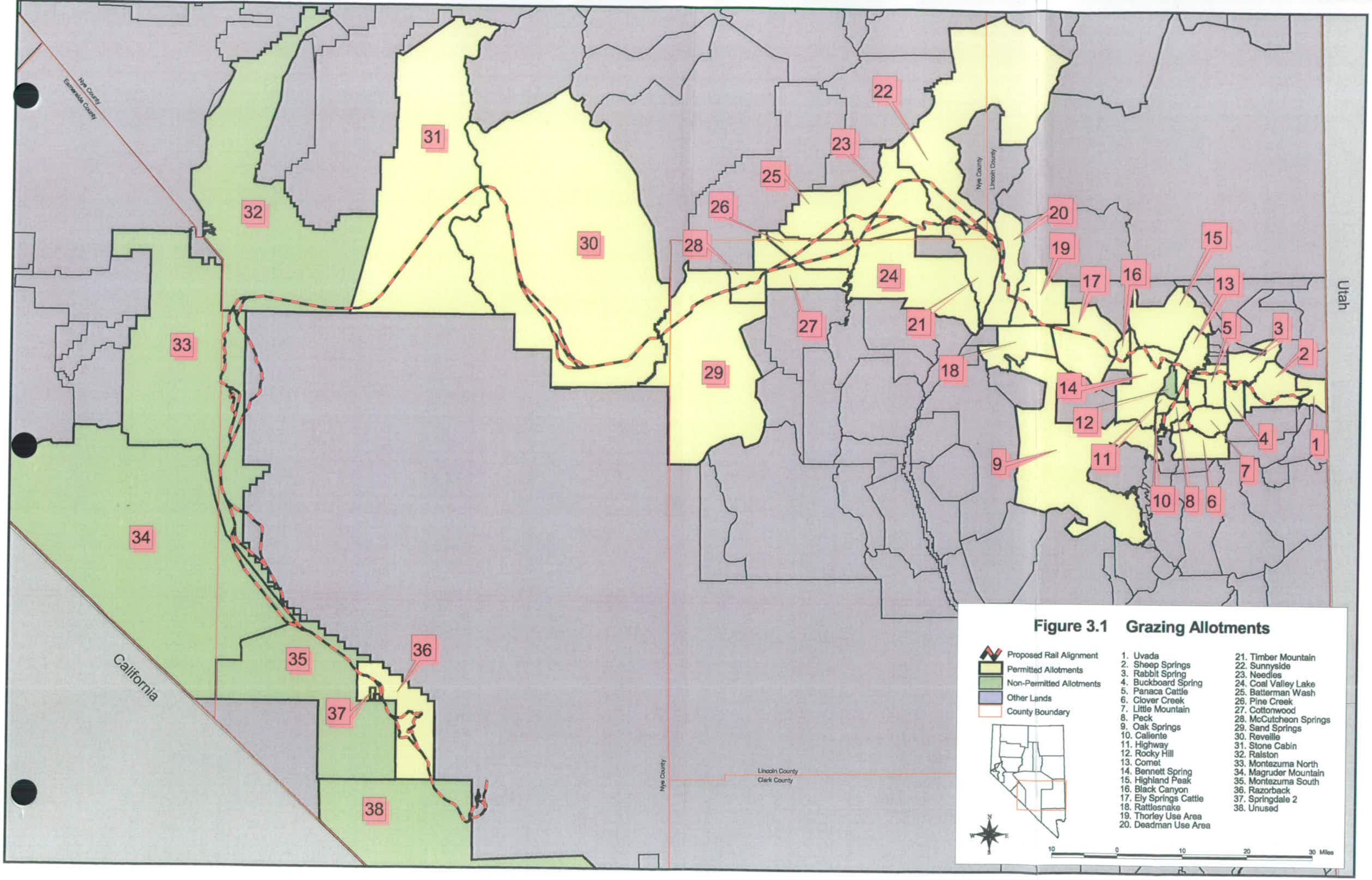


Figure 3.1 Grazing Allotments

3.2 FENCING

Whether to fence or not to fence the right-of-way is an issue of significant magnitude. The fencing preferences create a mosaic of both fenced and unfenced options, plus six other expressions: *undecided*, *disagree* (two in-common permittees have opposite preference), *no preference*, *partial fence*, and *declined to state*. See Table 3.2.1 and Figure 3.2

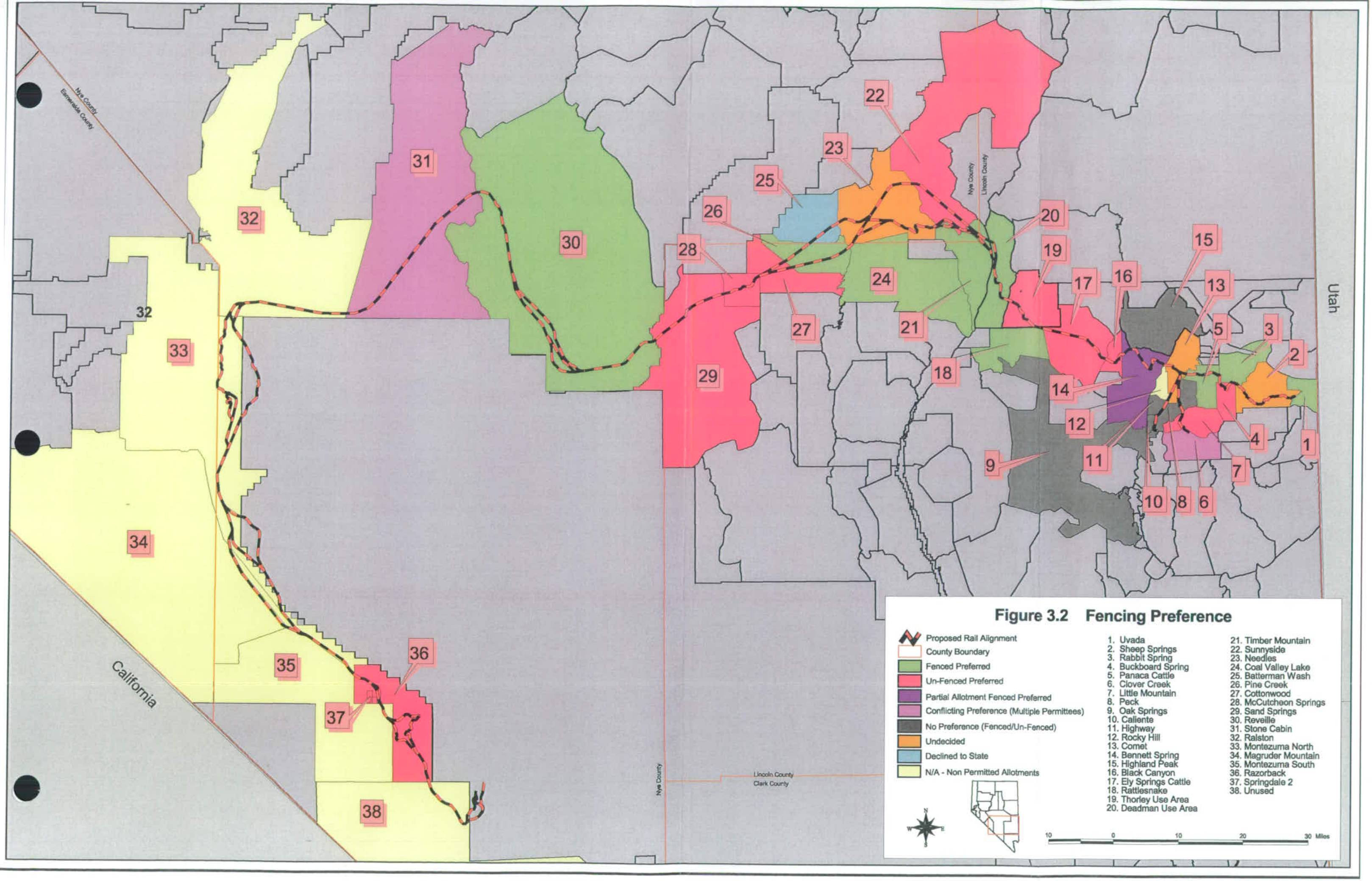
Up to the publication deadline, some permittees discussed changing their minds about fencing, however no permittee changed their preference. The proposed railroad presents many undesirable features to choose between from their point of view. The choice is driven by the least undesirable option for each permittee's specific grazing and livestock production operation. It is apparently a troubling choice for many of the Permitees. They were generally hesitant to decide either way due to insufficient information and data regarding train-livestock collisions, and the consequences of either choice on their respective grazing operations.

The impacts and mitigation measures have been analyzed by allotment, both with and without fencing, regardless of individual preference for fencing. This type of analysis was performed to provide complete insight to the amount and variability of potential impacts induced by either fencing choice, for each allotment. The data was then compiled for both the fenced and unfenced options for the entire route, in order to provide comparative information for the Environmental Impact Statement.

Table 3.2.1 Fencing Preference

No.	Name	Permittee	Contact	Fencing Preference*
1	Uvada	Kenneth D. Lee	Kenneth D. Lee	Y
2	Sheep Springs	H. Bruce Cox & Mervyn K. Cox	Todd Wright	U
3	Rabbit Spring	John and Lee Mathews	John and Lee Mathews	Y
4	Buckboard Spring	Lewis & Wendell Mathews	Wendell Mathews	N
5	Panaca Cattle	-Lewis & Wendell Mathews -Orren J. Nash	-Wendell Mathews -Orren J. Nash	Y Y
6	Clover Creek	-Roger Dieleman -National Mustang Assoc.	-Roger Dieleman -Richard Sewing	Y N
7	Little Mountain	National Mustang Assoc.	Richard Sewing	N
8	Peck	7J Ranch	Henry Brackenbury	NP
9	Oak Springs	Delamar Valley Cattle	Merlin Flake	NP
10	Caliente	Charles Culverwell Estate	Chuck Culverwell	NP
11	Highway	7J Ranch	Henry Brackenbury	NP
13	Comet	Ray Thompson	Ray Thompson	U
14	Bennett Spring	-Brad Guyman -Thomas L & Warren Williams	-Brad Guymon -Thomas Williams	PF PF
15	Highland Peak	Brent Hunter	Brent Hunter	NP
16	Black Canyon	-Brad Guyman -Thomas L. & Warren Williams	-Brad Guymon -Thomas Williams	N N
17	Ely Springs Cattle	Laird Whipple	Laird Whipple	N
18	Rattlesnake	Dean Carter & Sons	Dean Carter	Y
19	Thorley Use Area	Bulloch Bros.	Matt Bulloch	N
20	Deadman Use Area	-Blue Diamond Oil Co. -El Tejon Cattle Co.	-Gary Sprouse -Melchor Gragerine	Y Y
21	Timber Mountain	Blue Diamond Oil Co.	Gary Sprouse	Y
22	Sunnyside	Bruce and Pamela Jensen	Bruce and Pamela Jensen	N
23	Needles	Double U Livestock, LLC	Wade West	U
24	Coal Valley Lake	-Blue Diamond Oil Co. -Charles & Clayton Wadsworth -Thomas W. Steele	-Gary Sprouse -Charles Wadsworth -Robert Steele	Y Y Y
25	Batterman Wash	Gracian Uhalde	Gracian Uhalde	D
26	Pine Creek	Thomas W. Steel	Robert Steele	Y
27	Cottonwood	Kay Wright Ranch LLC	Rocky and Linda Hatch	N
28	McCutcheon Sp.	Kay Wright Ranch LLC	Rocky and Linda Hatch	N
29	Sand Springs	Tempiute Grazing Association	Dirk and Marta Agee	N
30	Reveille	½ Fallini; ½ Fallini Living Trust	Joe Fallini	Y
31	Stone Cabin	-Colvin & Son, LLC -Stone Cabin Partnership	-Al Stenninger -Roy Clifford	Y N
36	Razorback	Fleur de Lis Ranch	Paul Holcher	N
37	Springdale 2	George and Larene Younghans	George Younghans	N

(*Y-Yes, fence; N-No fence; U-Undecided; D-Disagree; NP-No Preference; PF-Partial Fence)


Nye County
Esmeralda County
Nye County
Lincoln County
Utah
California
Lincoln County
Clark County
Nye County
Figure 3.2 Fencing Preference
Proposed Rail Alignment
County Boundary
Fenced Preferred
Un-Fenced Preferred
Partial Allotment Fenced Preferred
Conflicting Preference (Multiple Permittees)
No Preference (Fenced/Un-Fenced)
Undecided
Declined to State
N/A - Non Permitted Allotments
1. Uvada
2. Sheep Springs
3. Rabbit Spring
4. Buckboard Spring
5. Panaca Cattle
6. Clover Creek
7. Little Mountain
8. Peck
9. Oak Springs
10. Caliente
11. Highway
12. Rocky Hill
13. Comet
14. Bennett Spring
15. Highland Peak
16. Black Canyon
17. Ely Springs Cattle
18. Rattlesnake
19. Thorley Use Area
20. Deadman Use Area
21. Timber Mountain
22. Sunnyside
23. Needles
24. Coal Valley Lake
25. Batterman Wash
26. Pine Creek
27. Cottonwood
28. McCutcheon Springs
29. Sand Springs
30. Reveille
31. Stone Cabin
32. Ralston
33. Montezuma North
34. Magruder Mountain
35. Montezuma South
36. Razorback
37. Springdale 2
38. Unused
N
W
E
S
10
0
10
20
30 Miles

3.3 STOCKWATER

Water is a highly, and possibly the most valued resource for stockmen in the desert. Every source is carefully developed and maintained to maximize its availability and dependability for livestock and irrigation. Spring water and well water is frequently piped for miles with intermittent stockwater troughs along the pipelines. The Sand Springs Allotment (#29) is an unusual example where over 135 miles of pipelines have been constructed to distribute the stockwater as needed to maintain a viable livestock grazing system and production operation within the allotment.

As would be expected, the proposed railroad route impacts many stockwater and irrigation sources, as well as distribution facilities. There are 176 water sources within four miles of the track, and 64 within one mile. The railroad crosses seventeen pipelines, posing a unique challenge because the pipelines must remain functional during construction in areas of the allotments that demand water be present for adequate livestock and grazing distribution. A widely recommended pipeline crossing design feature is the installation of a protective conduit through which the water conveyance pipe can be inserted so the permittee or responsible party can readily maintain, replace, and repair the pipeline. See Table 3.3.1 and Figure 3.3 for details of stockwater sources along the proposed railroad route.

Each type of water source requires unique consideration when determining impacts and mitigation. Impacts to a reservoir might be disruption of overland flow, or redirecting flow away from the reservoir. Springs cannot be moved. Once impacted at the source, they could be lost forever, along with the wetland and riparian habitat they support.

The vulnerability of stockwaters to impairment and reduction in service area (area and distance livestock graze from a water source) is one of the biggest concerns, and a universal concern, of all the permittees impacted by the proposed railroad. This concern is understandable, as the stockwaters are the lifeblood of their livestock operations. Without adequate water delivery, availability, and distribution, adequate distribution of the livestock cannot occur. Adequate livestock distribution allows the vegetation communities to be used sustainably. If the impacts to livestock waters are not mitigated during the construction, use, and maintenance of the proposed railroad, natural resource conditions could suffer, and the permittees could be penalized by the loss of grazing privileges for the adverse impacts on the natural resources caused by the improper distribution of livestock.

The stockwaters that lie within four miles, and stockwaters within one mile of the proposed track, are identified and tallied in Table 3.3.1. The basis for the four-mile impact distance (4 miles on each side of track = 8 mile zone) is based on a four-mile service area for base property stockwaters. This customary figure of a 4-mile service area originated when the Grazing Service, the predecessor agency to BLM, first adjudicated water base property. The track can potentially interfere with the ability of livestock to utilize a waters' full service area as far as four miles from the track. The basis for the one-mile impact zone is the proximity to the track and the increased risk of livestock/train collision and death loss because of livestock congregation around watering places.

The stockwaters within an eight-mile zone (4 miles on each side of the track) are shown in red on each of the figures in the allotment specific portions of Section 5.0. For adequate impact mitigation, agreement should be reached and documented between BLM, DOE, and the permittees about who will be responsible for planning, implementation, and maintenance of livestock water impact mitigation. This includes NEPA compliance, engineering, compliance surveys, water filings, materials, and labor.

Table 3.3.1 Impacted Stockwaters

ALLOTMENT INFORMATION				
No.	NAME	WATERS WITHIN 4 MILES	WATERS WITHIN 1 MILE	PIPELINE CROSSINGS
2	Sheep Springs	5	2	1
4	Buckboard Spring	3	0	0
6	Clover Creek	8	1	0
7	Little Mountain	1	1	0
13	Comet	1	1	0
14	Bennett Spring	1	0	0
16	Black Canyon	2	0	0
17	Ely Springs Cattle	12	6	4
18	Rattlesnake	2	2	0
19	Thorley Use Area	10	6	1
20	Deadman Use Area	2	2	0
21	Timber Mountain	2	2	0
22	Sunnyside	4	0	0
23	Needles	10	3	1
24	Coal Valley Lake	1	1	0
25	Batterman Wash	6	4	0
26	Pine Creek	8	5	2
27	Cottonwood	13	3	1
28	McCutcheon Sp.	1	1	0
29	Sand Springs	19	6	3
30	Reveille	40	10	4
31	Stone Cabin	23	8	0
36	Razorback	1	0	0
	TOTAL	**175**	**64**	**17**

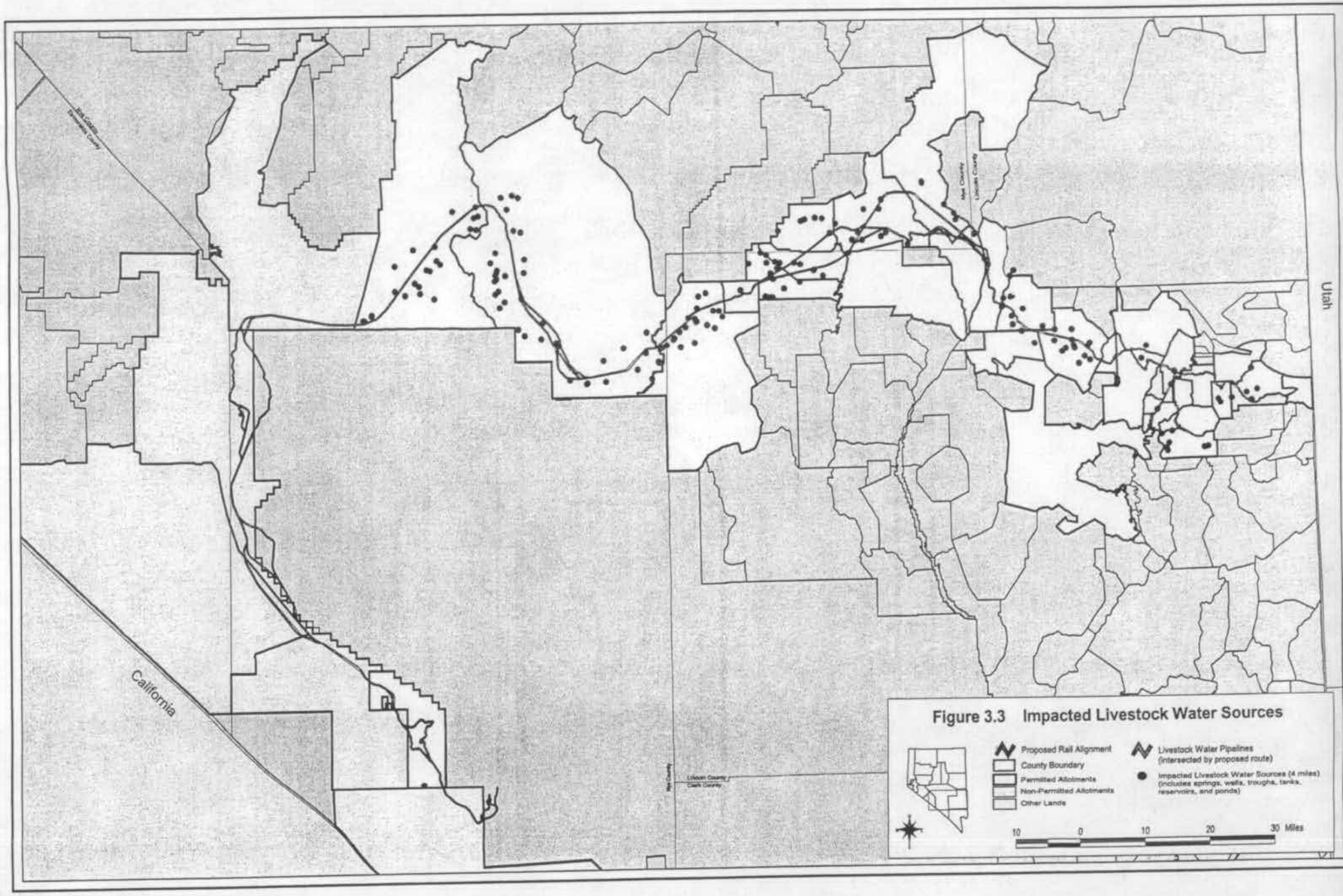


Figure 3.3 Impacted Livestock Water Sources

3.4 WATER RIGHTS

The stockwaters are all permitted, certified, or vested by the State Engineer in the Nevada Division of Water Resources (DWR). This ownership is bestowed by virtue of Nevada State Water Law. Federal laws recognize state supremacy in the matter of stockwater rights. All of the waters and water rights are private property rights. The waters within four miles of the tracks will be impacted by the proposed railroad. The stockwaters listed in Table 3.3.1 fall into this class.

The proposed railroad will trigger the need for many modifications to existing stockwater sources as well as development of new sources. The permittees may find themselves in the middle of water rights disputes between BLM, the Nevada Division of Water Rights (DWR), and Southern Nevada Water Authority (SNWA). In the interest of efficiency and enhanced cooperation, and in all fairness to the permittees, consideration should be given to seeking agreement between all of the agencies, organizations, and affected parties on how to coordinate and expedite the necessary authority for water development, what rules will apply, who will be responsible, and who will provide the funding. For example, BLM routinely protests all new filings and co-files on new water claims, change of place of use, and change of point of diversions. Neither BLM nor DOE has authority in how DWR assigns water rights, and outside interests will potentially use variable tactics to achieve competing filings in the face of the pending permittee dilemmas. Filings for new water sources and changes in places of use are costly and time consuming. Under existing rules, pipeline extensions should be used whenever possible rather than new wells as the latter require new water rights. When the waters that are impacted and need modification or replacement, are in fact base property, the situation is even more complex and subject to additional controversy. The permittees are vulnerable to substantial losses if this is not addressed by the advance development and implementation of a mutually satisfactory protocol.

3.5 BASE PROPERTY

The Taylor Grazing Act established the ownership of base property as a requirement for holding a grazing permit. Section 3 of the Act states:

> Preference shall be given in the issuance of grazing permits to those within or near a district who are landowners engaged in the livestock business, bona fide occupants or settlers, or owners of water or water rights, as may be necessary to permit the proper use of lands, water, or water rights owned, occupied, or leased by them.

The Grazing Regulations interpret the Act in 43CFR §4100.0-5, which states:

> Base Property means: (1) Land that has the capability to produce crops or forage that can be used to support authorized livestock for a specified period of the year, or (2) water that that is suitable for consumption by livestock and is available and accessible, to the authorized livestock when the public lands are used for livestock grazing.

Typically, land was used for base property when the permittees owned sufficient qualifying land. In desert areas like southern Nevada, it was (and is) common to have permittees who did not own qualifying land to use water for base property. In those cases, the grazing allotments were classified as water base property.

The means by which the BLM has administered this law is by adjudicating the base properties and grazing privileges, and maintaining records showing the privately owned property(s) to which various grazing privileges are attached. Land base is important where the railroad approaches the vicinity of, or crosses private lands. Some of these properties are base lands. The railroad could impact the uses, values, and/or management practices on each parcel of land. If they were permanently impacted the permittees could not utilize them with livestock as required under the conditions of the land based permits, and their grazing privileges would be in jeopardy. The water base property is particularly significant because there are so many stockwaters in the path of the railroad, and furthermore they are private property rights.

Nine (9) of the 32 allotments are classified as having water base property. They are detailed on Figure 3.5. There are 108 base property stockwaters within four miles of the track, 36 within one mile, and fourteen cases where pipelines carrying base property stockwater are intersected by the track. See Table 3.5.1.

When the base property classification for these stockwaters is added to the ownership of state water rights for the same waters, the private property right is increased in significance and value. Thus, the significance of damaging or impairing these stockwaters is greater. The loss of access to the forage around stockwaters or the loss of the water itself could result in the reduction of AUMs on the BLM permit. This could be for the reason of direct loss of forage as well as the loss of base property to which the permit is attached.

Table 3.5.1 Water Base Property

ALLOTMENT INFORMATION				
NO.	NAME	WATERS WITHIN 4 MILES	WATERS WITHIN 1 MILE	PIPELINE CROSSINGS
9	Oak Springs	0	0	0
16	Black Canyon	2	0	0
17	Ely Springs Cattle	12	6	4
18	Rattlesnake	2	2	0
19	Thorley Use Area[1]	10	6	1
23	Needles	10	3	1
27	Cottonwood	13	3	1
29	Sand Springs	19	6	3
30	Reveille	40	10	4
TOTAL		**108**	**36**	**14**

[1] Eligible for reinstatement of partial water-base property under the Ely Special Rule.

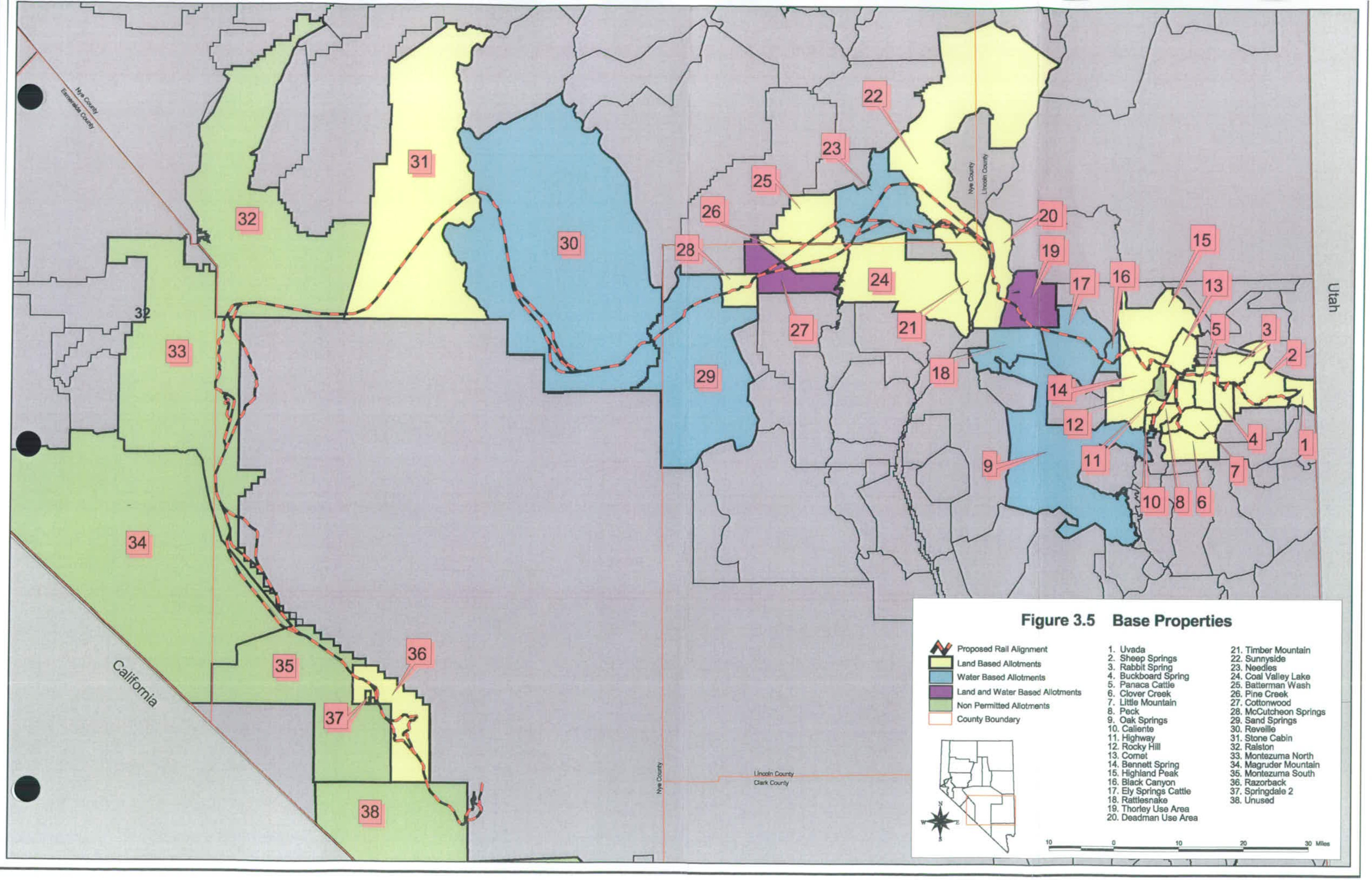


Figure 3.5 Base Properties

3.6 SOIL SURVEYS

Published soil surveys are extremely valuable tools, when available, for planning and/or assessing the types, conditions, and class of natural resources. Provided by the USDA Natural Resources Conservation Service, these surveys map the soil types and classes of a given region or area in accordance with the National Soil Survey standards, which provides a wealth of interpretation data on soils and vegetation limitations and capabilities for each soil type encountered. The interpretations include Ecological Site Descriptions (ESD) that present a plant community by species, and percent species composition by weight, soil pH, soils engineering information, and the suitability of each soil as a growth medium. Soil surveys should be the starting point of resource evaluations for large-scale projects in a given region.

Soil surveys have been completed over a significant portion of the area covered by the proposed Caliente to Yucca Mountain Corridor. However, there are areas along the proposed route that do not have soil survey information. It is advisable for the DOE to coordinate with the BLM and NRCS to determine if those areas without soil surveys can be surveyed to provide current soils information. In addition, some of the existing soil surveys are outdated and should be updated to current standards. The availability of the information would be invaluable in locating topsoil material, assisting in determination of appropriate species for reseeding disturbed areas, and locating off-site areas with the potential for replacement forage if necessary. The Soil Survey engineering interpretations would also greatly assist in the final routing of the railroad and design aspects.

Table 3.6.1 provides the soil survey availability and status for the proposed railroad route. The locations of the various soil surveys and unsurveyed areas are detailed on Figure 3.6. Published and usable soil surveys are available for approximately 65 percent of the route.

Table 3.6.1 Soil Survey Status

Soil Survey Name	Date	Survey Status	% of Railroad through Soil Survey Area
Meadow Valley Area	1976	Out of Date	17
Pahranagat-Penoyer Area	1968		
Nye County Northwest	2002	Published/Usable	65
Nye County Southwest	2004		
Nye County Northeast	2002		
Lincoln County North Part	N/A	Mapping in Progress	17
Nevada Test and Training Range (NTTR); Nevada Test Site (NTS)	N/A	Unsurveyed	1

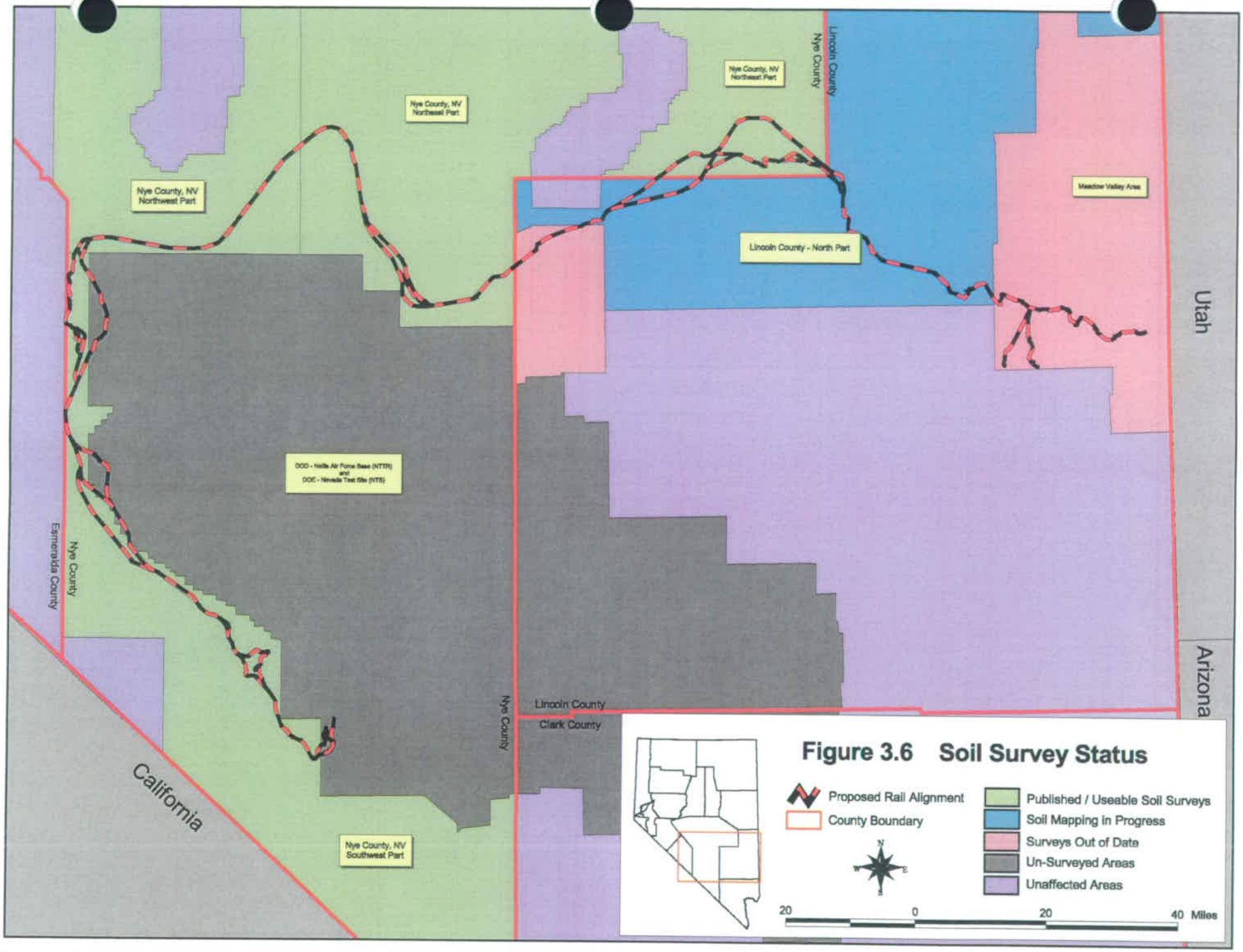


Figure 3.6 Soil Survey Status

3.7 DISTURBED AREA REHABILITATION

Ongoing construction will result in surface disturbances along the entire proposed railroad route. Many different soil types, each supporting a distinct plant community and various exposures, are present along the proposed route. To properly plan for disturbed area rehabilitation, a soil survey and a map of ecological sites will be required. This will help to identify the rehabilitation options at each site. A variety of plant species and native vegetation communities can be expected to establish on each site after construction of the proposed railroad is completed.

A number of rehabilitation challenges will be encountered, including cuts and fills for the railroad pad. Borrow areas will likely be located in numerous areas, in close vicinity, and convenient for the construction and maintenance of the railroad corridor. Borrow areas will expose inert subsoil material, which is unsuitable for reseeding and revegetation. It is recommended that wherever surface disturbance occurs or soils are stripped for the railroad pad construction, that the topsoil be stockpiled for reapplication as a planting medium. In desert regions revegetating disturbed areas is extremely difficult and high risk, even when using a suitable planting medium, native species adapted to the conditions of each site, and proper post-rehabilitation management practices. To plant into subsoil material in lieu of topsoil will greatly reduce the chances for seeding and vegetation reestablishment success. In the region of the proposed railroad alignment, precipitation is extremely limited and the soils lack organic matter. The science, technical, and practical knowledge available for successfully rehabilitating desert disturbances, is also limited. It may be necessary to explore alternatives such as temporary irrigation along the proposed route to encourage seeding success and vegetation establishment. A carefully developed rehabilitation plan, closely coordinated with researchers and scientists familiar with Nevada ecosystems, is critical to the success of the rehabilitation efforts.

Clearly, the most successful approach is to minimize the areas of disturbance to that which is absolutely necessary, and to hold the contractor accountable to that footprint. This would save countless dollars and frustration from failed rehabilitation efforts, and the need for repeated efforts at high cost. It is advisable that the DOE and the rehabilitation contractor use materials such as snow fencing to establish the boundaries of allowable disturbance areas prior to the initiation of any land disturbing activity, and to establish a steep penalty for any infringement beyond the boundaries of the designated areas. All seedings will require at least two years of protection from grazing to allow for stand establishment. Seedings in white sage and salt desert shrub areas may take much longer (3-4 years or more depending on the quantity and timing of precipitation). These areas are generally difficult to rehabilitate after disturbance. The permittees may need compensation during construction to feed cattle off site due to the loss of forage.

The only means of protection for the seedings is to fence the treated areas during the establishment period. Exposing rehabilitation seedings to grazing use prematurely would likely result in failure of the seeding. Where the right-of-way is not to be permanently fenced, it will be necessary to construct temporary fencing to protect the areas under rehabilitation. Selection of species for seeding is also important. A mixture that most closely represents the composition and structure of the community is one potential mix that could be utilized. Another mix would simply be composed of those native and non-native species that present the greatest odds for seeding success and vegetation reestablishment.

3.8 INVASIVE SPECIES

In recent years, the National Governors Association has led a national invasive species initiative to highlight the very serious, growing, and costly problem of invasive species throughout the country. Nevada is one of the few remaining states with the opportunity to avoid being overrun by invasive species, and the state is working hard to fend off the growing threat. A variety of invasive species have already become established in Nevada, and researchers in cooperation with local, state, and federal agencies are actively engaged in efforts to hold invasive species at bay and prevent further expansion. Invasive species spread through a variety of ways. For instance, seeds can collect on the tires and body of construction equipment and be transported to new areas, thereby contaminating other sites. The same is true of most any vehicle in use in the construction area. The proposed railroad construction area is in one of the most sensitive and susceptible environments for certain invasive species, including noxious weeds. Invasive species found in the construction area will require immediate control and abatement treatment. In addition, the treated areas will require careful planning and monitoring by qualified erosion and sediment control specialists to assure that adaptive species and sound cultural practices are effectively utilized to avoid reinvasion by undesirable species. The proposed railroad route is presently mostly free of invasive species. Priority must be given to identifying and mapping existing invasive species and development of avoidance plans to assure that construction does not encourage spread of invasive and noxious weeds. Coordinating with the local weed districts such as the Tri-County Weed District (White Pine, Nye, and Lincoln counties) will help to familiarize the DOE and the contractors with weed issues, and provide a means to best address the problem.

Russian knapweed (*Acroptilon repens)* is a state-listed noxious weed with the potential to invade the proposed corridor area. Russian thistle, an annual weed (*Salsola kali)* dries as tumbleweeds and accumulates into piles of flammable material. Halogeton (*Halogeton glomeratus*) is a weed species that has spread throughout many areas through which the track will run. It establishes in disturbed areas, outcompetes native vegetation for life sustaining resources, and has poisonous properties. Cheatgrass (*Bromus tectorum*) is another species that establishes in disturbed areas, although typically this annual grass invades burned or other heavily disturbed areas and establishes on a site before native species can re-establish. Tall whitetop (*Cardaria draba*) and saltcedar (*Tamarix ramosissima*, AKA tamarisk) are a concern as well in more mesic areas. The best way to control weeds is to reseed the disturbed area with adapted plant species as soon as possible to prevent weedy species from establishing and outcompeting the seeded species.

The subject of invasive species is a matter of universal concern to the 31 permittees interviewed for this report. The proposed railroad presents a risk of exposing Nevada to an unprecedented introduction of invasive species from outside areas during the construction, use, and maintenance activities associated with the railroad along its 320-mile route. Preventative measures must be developed and implemented to reduce the risk of invasion throughout Nevada. The threat of invasive species can be minimized if contemporary science, current technical knowledge, and practical application are fully utilized.

3.9 WILDFIRE

Nevada has experienced increased impacts to millions of acres of rangeland and natural resources from wildfires over the past decade. Millions of dollars have been spent combating wildfires, with millions more spent on the subsequent revegetation attempts. The region where the proposed railroad is to be located is not a notable area for historic wildfire activity, although there is some wildfire history in the area. The majority of the vegetation communities located within the proposed project area are known to be susceptible to ignition. Some of the most susceptible communities include the sagebrush, salt desert shrub, white sage, pinyon, and juniper communities, which can also be highly valued and essential to the success of livestock production operations that depend upon them for forage.

Because only limited vehicle traffic occurs in this remote area and there is little residential occupancy, human-caused wildfires are rare. In addition, very little biomass accumulates in the typically short-stature salt-desert shrub vegetation type because of the dry conditions and short growing seasons. However, under conditions of increased annual precipitation, the fire threat is exacerbated by the increase in annual grasses such as cheatgrass and red brome. Unless these plants are grazed or otherwise reduced during the short growing season, they rapidly convert to a dry flashy fuel, capable of fueling a fast-moving and destructive wildfire that will ladder through the grasses into the shrub layer. Once a site has burned in the presence of such annual invasive species, it can be infeasible or impossible to reestablish native vegetation under an environment characterized by such intense, interspecific competitive interactions and possible site-potential alteration. This means that valuable forage sources and native vegetation communities could be lost entirely through fire and subsequent invasion of exotic species, especially if rehabilitation efforts are precluded because of threshold-crossing and environmental conditions that are not conducive to such actions. In addition, fires often result in allotment closure to livestock grazing for at least two years, and in some cases indefinitely due to the length of time that is deemed necessary for the vegetation to become reestablished following fire. These temporary and indefinite allotment closures can have detrimental and terminal consequences for the livestock grazing operations that depend on the allotments for a forage base.

All phases of the project including exploration, construction, maintenance, and operation of the railroad should be performed in a manner that reduces fire ignition risks in every possible manner. During all phases of the project, vehicles traveling within and through vegetation can pose significant risks of ignition due to the heated undercarriage parts. Human activities such as campfires, using camp-style stoves, throwing unextinguished smoking materials out of vehicle windows or on the ground, and improper garbage disposal can present potential ignition risks. Earth moving equipment can produce sparks due to metal-on-metal and metal-on-rock friction inducing activities. There is concern that trains may still be susceptible to occasional wheel sparking, despite new technology that has mitigated many of the historical ignition risks. In a region with minimal water and fire suppression capabilities, every effort should be made to strengthen and ensure the presence of fire suppression resources such as stored water along the railroad route, additional firefighting apparatus, and trained first responders, so that all risks and impacts of fire can be effectively minimized during every stage of the project.

3.10 GRAZING MANAGEMENT PLANNING

Construction staking, mobilizing, and construction activity will impose considerable disruption to the livestock operations, requiring varying amounts of added labor, equipment, and materials inputs on the part of the permittees. This may include relocating pipelines and watering facilities, temporary crossings, conditioning livestock to unfamiliar conditions, noise, and other impacts. It is anticipated that livestock will tend to migrate away from close proximity grazing areas as a result of the construction activities. This may require temporary changes in the grazing system to relocate livestock until construction passes through the area. Increased trailering and time on horseback may be required to drive livestock to and from distant alternate feed areas during this period. Efforts should be made to minimize these movements, as frequent and abnormal herding of livestock can result in undue stress, weight loss, and reduced birth rates. To help minimize these impacts, RCI recommends the development of Interim Grazing Plans to assure that livestock operations are secure during construction. These construction and rehabilitation plans will also help assure that favorable working relationships are maintained during construction, and will serve as a bridge between the existing Management Plans and the post construction plan revisions.

The post construction situation will be highly disruptive to many of the allotment grazing systems. This will render existing grazing management plans obsolete and will require a new generation of plans for the disrupted allotment grazing systems. The new generation of plans will require working directly with BLM and the permittees to develop plans tailored to the changes that have resulted from the right-of-way track placement. The objective should be to retool the existing plans to help maintain existing livestock numbers, while not creating an increased burden on the permittees that affect their ability to sustain an economic unit.

3.11 MAINTENANCE

The construction and establishment of many types and kinds of infrastructure will occur with the implementation of the Proposed Yucca Mountain Corridor project. Many of these pieces of infrastructure are subject to decay and disrepair over time due to natural processes and intended use. Maintenance will require regular inputs of labor and materials to preserve the functionality of such infrastructure, which needs to have an identified responsible and qualified party. This party should be able to perform the maintenance at predetermined and acceptable frequencies and quality standards. Construction and maintenance should conform to BLM standards and guidelines.

3.11.1 Fencing and Gates

It is foreseen that the right-of-way will be fenced along at least some portions, and potentially all portions of the railroad. Fences and the associated gates typically have to be regularly maintained and repaired due to the nature of the present environmental conditions, human activities, and animal activities that threaten the viability of the fences and gates over time, and therefore its purpose of excluding livestock. Maintenance can include anything from replacing single strands or stays, to entire fence or gate replacement. Fences will have to undergo regular maintenance at frequencies recommended by the BLM. Without regularly maintained fencing, the financial solidarity of the livestock production activities can be jeopardized by unnecessary livestock losses due to train collisions and livestock drifting into adjacent allotments. Unmaintained fences can also jeopardize the permittee's compliance status with his or her grazing term permit, resulting in penalization and potential reduction or loss of permitted forage use.

3.11.2 Cattleguards / Underpasses / Livestock Trail, Vehicular Trail, and Road Crossings

The Proposed Yucca Mountain Corridor will intersect many livestock trails, vehicular trails, and roads that are used regularly during the normal function of the livestock grazing operations. Many of these intersections will be mitigated with construction of traditional ramp-style crossings over the railroad, or underpasses. Ramps are subject to erosion and wear from normal use and environmental processes. Cattleguards will also be installed at the crossings where the right-of-way is fenced. These are also constructed with a slightly ramped approach as well as a depression underneath, both of which are subject to sedimentation and erosion processes that would eventually render them non-functional for cattle exclusion and vehicular passage. Maintenance could include filling and re-grading ramps, re-digging cattleguard depressions, as well as complete reconstruction of the access ramps. Without maintenance of the crossings and cattleguards the livestock grazing operations could be negatively impacted due to the difficulty or impossibility of moving vehicles and livestock throughout the allotments as required for normal livestock operations.

3.11.3 Rehabilitation Areas and Seedings

During the construction phase of the Proposed Yucca Mountain Corridor, some of the vegetation and forage along the right-of-way will be disturbed either permanently or temporarily. If the disturbed vegetation and forage is mitigated using rehabilitation techniques, these sites will have to be maintained at least temporarily with exclusionary fencing or other means to prevent compromise of seeding success. When the rehabilitation has been deemed successful, then the fencing can be removed or used as a continuing livestock management improvement. After some period of time, the sites should be grazed so that plants maintain vigorous growth. Without proper maintenance of the rehabilitation areas and seedings, the success of the mitigation efforts could be compromised, as well as the forage value necessary for the livestock production operations.

3.11.4 Pipeline Crossings and Other Culverts

The Proposed Yucca Mountain Corridor will cross various water conveyance infrastructure and natural formations such as pipelines, ditches, canals, drainages, creeks, and washes. These are all either directly important to the livestock production operations as water sources for livestock production and farming practices, or indirectly as water sources for rangeland and forage vegetation conservation. All of these crossings will be mitigated in some way or another with culvert types of infrastructure, but the maintenance of the mitigation units is critical for maintaining their functionality to the permittees and ecological processes. Pipeline crossing maintenance could include regular inspections and pipeline repair where vibration or other sources of disturbance compromise the strength of the pipes. All culverts and pipeline crossings must be kept clear of debris so that water can flow freely and pipelines can be inspected, removed, repaired, and replaced as necessary. If maintenance on such infrastructure is not completed, the livestock production operations could be potentially impacted due to a lack of water for livestock consumption, farming practices, and natural resource conservation. A pipeline crossing design feature that is widely recommended is to bury a culvert pipe larger than the water conveyance pipe so the conveyance pipe can be inserted, removed and reinserted easily for maintenance.

4.0 IMPACTS AND MITIGATION

4.1 IMPACTS

Impacts have been addressed for a variety of subjects including:

- Livestock Death from Train Collisions
- Vegetation and Forage
- Livestock Movement
- Pasture Design
- Grazing Systems
- Stockwaters
- Pipelines
- Roads and Trails
- Existing Fencing
- Residences
- Livestock Trailing
- Livestock Trucking
- Stockwater Hauling
- Water Gap
- Corrals and Facilities
- Isolation and Tranquility
- Land Values
- Overall Livestock Operation

The impacts were addressed in the allotment specific analyses. Some impacts lend themselves to quantification and are compiled into project wide totals for both fenced and unfenced right-of-way scenarios. Table 4.1.1 provides the project wide data summary.

Four potentially affected allotments were examined and found to have no impacts. Basic data is furnished for these four allotments similar to the vacant (non permitted) allotments:

- 5.9 - Oak Springs
- 5.10 - Caliente
- 5.11 - Highway
- 5.15 - Highland Peak

In many cases, specific impacts cannot be determined until the centerline of the track has been staked on the ground and the design and construction plans are available.

Table 4.1.1 Impacted Features

IMPACTED FEATURES	
Waters w/in 4 miles	175
Waters w/in 1 mile	64
Fences (ea)	43
Roads	33
Trails	64
Pipelines	17
Corrals	7
Creeks	6

4.2 MITIGATION

Seventeen types of mitigation projects were tallied in tables for each allotment. Table 4.2.1 provides a compilation of project wide totals for the different types of mitigation for both a fenced and unfenced right-of-way.

Permittees in two allotments, Stone Cabin and Needles, also requested that they be deeded irrigable BLM land that would serve as farmland with accompanying wells to service an unspecified number of irrigation pivots for mitigation. The permittees in those allotments stated that the wells could be used for construction water during construction of the railroad and then deeded to them. They requested the opportunity to negotiate the number of acres and pivots with DOE. They also requested the services of an Agricultural Economist to determine the value of farmland and the cost of damages to serve as a basis for informed negotiation.

ASSUMPTIONS AND DATA INFLUENCING FACTORS

1. Multiple Alternative Routes - Fourteen allotments have multiple alternative routes. In order to provide one set of data, the numbers of projects for all alternative routes were averaged for each allotment.
2. Permittee Disagreement - The two permittees in the Stone Cabin allotment disagree on mitigation and submitted conflicting reports with different numbers for various projects. This was resolved in the compilation by averaging the two sets of numbers.
3. Railroad Cattleguards – The numbers were compiled on the basis that the right-of-way would either be entirely fenced or entirely unfenced. The numbers would be different if some allotments are fenced and some not. There was no sensible basis to make that determination. For the fenced alternative, it was assumed that when the track crosses a highway, cattleguards would be constructed across the highway rather than across the railroad track.
4. Livestock Crossings/Underpasses – Some permittees said they preferred underpasses to overcrossings. Without centerline staking and design plans, there was no practical basis to determine feasibility of underpasses. Therefore, the livestock crossing data includes both overcrossings and underpasses. Associated numbers of gates and road cattleguards were calculated on the basis of overcrossings only. Underpasses were specified for the Reveille Allotment, as they were a specific request in the report prepared by the permittee.
5. Livestock Crossings – These are separated into sheep and cattle crossings because sheep crossings need to be five to six times wider than cattle crossings to accommodate bands of sheep.

6. Unspecified Mitigation Waters – These were stockwater mitigation projects that were left as a non-specific type because different solutions could be worked out that need to be determined through onsite negotiation with DOE.

Wherever the railroad crosses an allotment, the amount of forage loss in AUMs will need to be quantified through survey, data collection, and analysis. The quantification needs to be performed according to BLM standards after the design and construction plans are advanced far enough to enable site-specific identification of impacts. The current contract provided for identification of impacts at a conceptual level, but did not provide for quantification.

On many allotments, there is an opportunity to mitigate acreage and forage losses through vegetation treatment to increase forage availability. Juniper encroachment and sagebrush proliferation are two examples of opportunities to increase forage production through juniper and sagebrush control or treatment. These opportunities require onsite survey and analysis for identification. Such survey and analysis was beyond the scope of the current contract, but could be explored for additional or alternative means of mitigation.

An open issue is whether to reseed with palatable species to restore forage losses or to reseed with unpalatable species along the railroad track to avoid attracting livestock and reduce the potential for collision and death loss. The outcome of this choice will have a bearing on the extent of temporary versus permanent forage losses.

Road crossings over the railroad track will need in depth consideration to determine design standards. For example, Dry Lake Valley is slated for major construction activity related to the Southern Nevada Water Authority water pipeline, power plant, and power line proposals. These activities would generate major traffic with heavy-duty equipment. Where these activities will occur, the crossing design standards should be enhanced to accommodate the accelerated, intensified, and heavy-duty traffic.

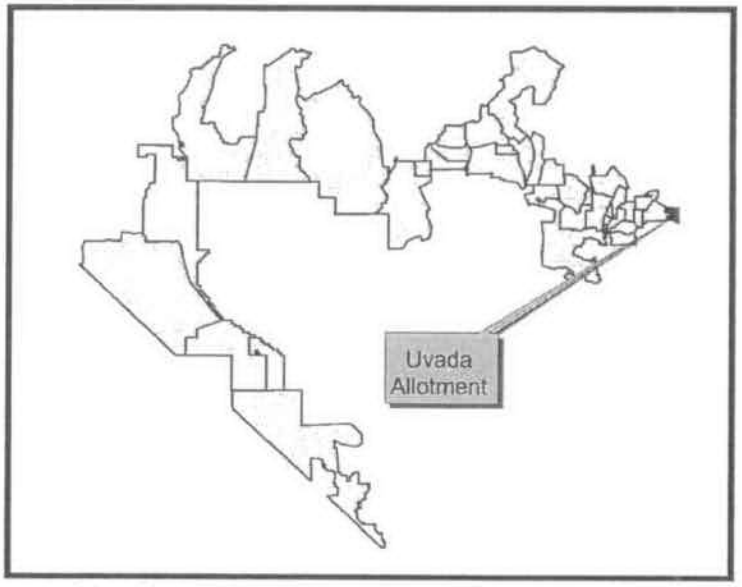
There can be no substitute for on-site negotiation with most of the permittees to determine the number, design, and location of all mitigation projects to mitigate impacts to their allotments and grazing operations. Most will want to have their associated BLM Rangeland Management Specialist included. Fear that DOE will not grant the permittees the courtesy of on-site planning consultations is a factor that no amount of public meetings, written communications, or off-site verbal communications can overcome. The distrust and anger that has been expressed by permittees can in large measure be attributed to this fear, and should be addressed in a manner that removes all basis for these adverse feelings and actions displayed and communicated by the permittees

Table 4.2.1 Mitigation Projects Summary

Mitigation Construction Units	Without Fencing	With Fencing
Fence (mi)	13	496
Gates (ea)	44	804
Railroad Cattleguards (ea)	40	46
Road Cattleguards (ea)	42	627
Road Crossings (ea)	32	32
Trail Crossings (ea)	64	48
Cattle Crossings (ea)	278	88
Sheep Crossings (ea)	27	27
Pipeline Construction (mi)	44	41
Pipeline Crossings (ea)	17	17
Unspecified Mitigation Waters (ea)	17	8
Troughs (ea)	41	37
Wells (ea)	13	13
Springs (ea)	4	4
Creek Crossings	6	6
Corrals (ea)	7	7
Underpasses		191
Garden Valley Crossing	1	1
Trestles	8	8
Ponds	2	2
Fence Removal (mi)		2

5.1 UVADA ALLOTMENT

Permittee: Kenneth Lee
Contact: Kenneth Lee
Address: Box 123
Panaca, Nevada 89042



5.1.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Uvada allotment is located east of Caliente on the Utah border. The existing UPRR track travels through approximately two and one-half miles of the allotment on the east side, then continues along the allotment boundary around the southwest side. See Tables 5.1.1 and 5.1.2, and Figure 5.1.1 for details of the allotment and railroad route.

Table 5.1.1 Uvada Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
11,244	0	76 cattle	5-01 / 10-31	460	Crestline Option	
					.82	20.5

Table 5.1.2 Uvada Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
463	1,317	1,780

GRAZING SYSTEM

Season long.

PASTURE DESIGN

The existing UPRR divides the allotment into two pastures. The perimeter of the allotment is fenced as well as the railroad right-of-way on either side. The Permittee receives some fencing material from UPRR, but maintains the fence himself.

STOCKWATER DESIGN

There are three stockwaters within four miles of the existing railroad.

5.1.2 Fencing Preference

The Permittee prefers that the proposed track be fenced, as the existing track is currently fenced.

5.1.3 Proposed Railroad Alignment

The proposed railroad would tie into the existing UPRR track on the west side of the allotment, running parallel with the track and allotment boundary for approximately one mile before continuing west at a point where the existing track and the allotment boundary turn south at Horseshoe Bend.

5.1.4 Impacts and Mitigation

IMPACTS TO EXISTING FENCING

Construction of the proposed railroad may cross the existing fences that keep cattle off of the track and in the allotment, and will cross where the proposed track exits the allotment near Horseshoe Bend. Several cattle have been killed in this allotment due to public parties leaving gates open and allowing cattle access to the track.

MITIGATION

If the current fencing is impacted by the proposed railroad, construct new fence as needed to reestablish the current fencing conditions. A cattleguard will be needed on the track and service road where the proposed track will cross the allotment boundary fence to keep cattle off of the track.

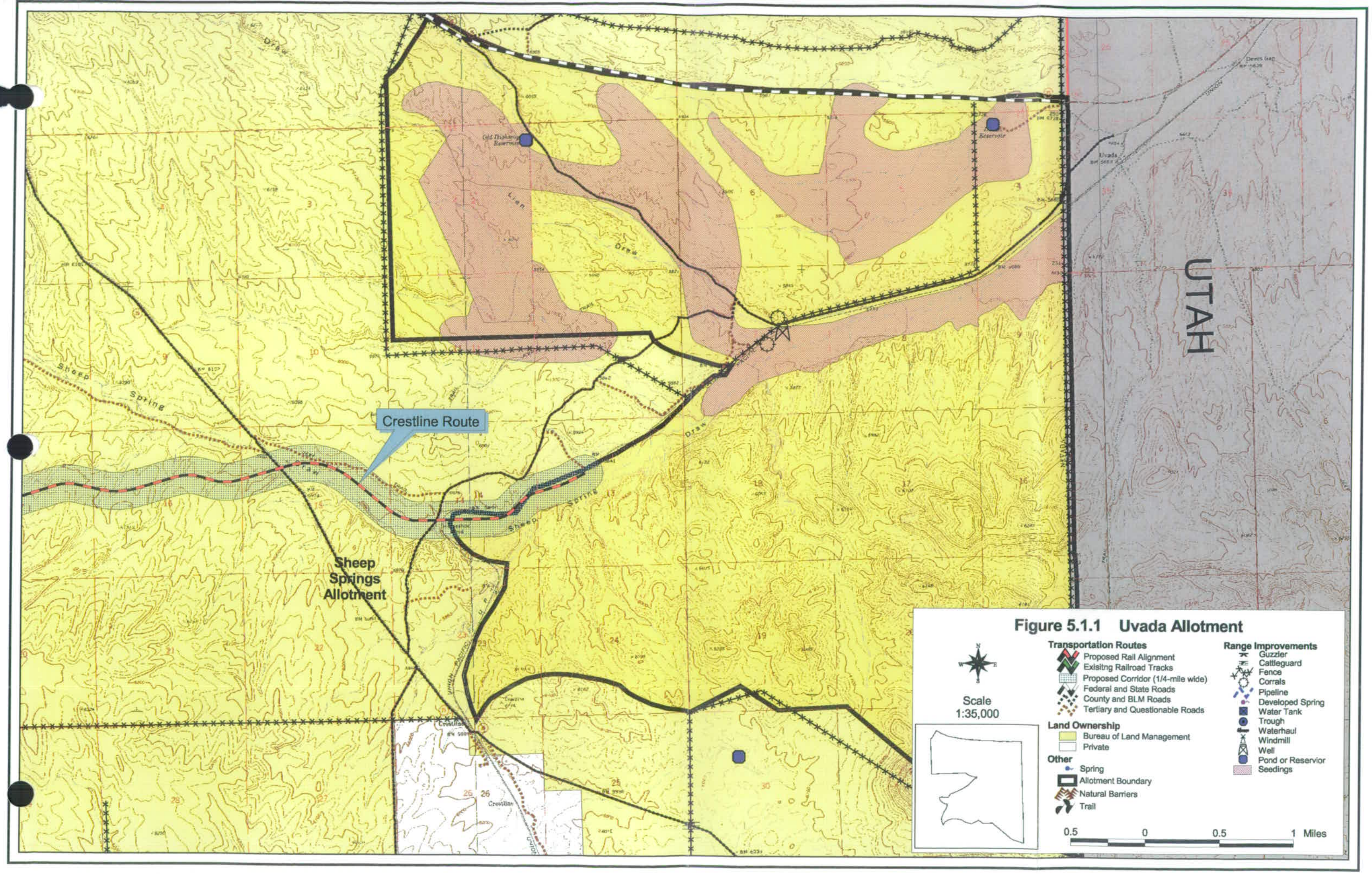
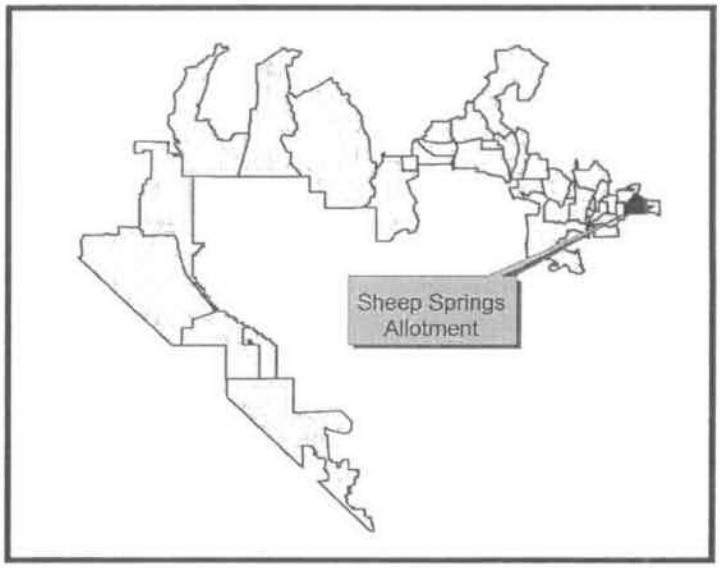


Figure 5.1.1 Uvada Allotment

5.2 SHEEP SPRINGS ALLOTMENT

Permittee: H. Bruce and Mervyn Cox
Address: 6511 Deer Spring Way
Las Vegas, NV 89131

Contact/Lessee: Todd Wright
Address: PO Box 294
Pioche, NV 89043



5.2.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Sheep Spring Allotment is located about fifteen miles east of Panaca. Highway 25 runs along the northeast side of the allotment. The allotment is approximately eight miles long east and west with a neck that reaches to the east for another two miles. The allotment is about seven miles across north and south at its widest point, and it tapers to the southwest and southeast from the widest part.

The allotment is only partially fenced on the south side, lacking 3.8 miles of fence in the southwest corner to complete the fence between this allotment and the Oak Wells Allotment. The Sheep Spring Allotment is fenced where it joins the Buckboard Allotment, but there is no fence between the Sheep Spring Allotment and the Rabbit Spring Allotment. The proposed railroad route may cross a portion of the base property at Miller Spring. The route should be adjusted to avoid the area so that it does not impact the base property for the permit. See Tables 5.2.1 and 5.2.2, and Figure 5.2.1 for details of the allotment boundary and railroad route.

Table 5.2.1 Sheep Springs Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
30,365	82	43 cattle	6-01 / 3-15	409	Crestline Option	
Total – 30,447					10.75	269

Table 5.2.2 Sheep Springs Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
409	2,231	2,640

GRAZING SYSTEM

The cattle are free to graze at will during the season.

PASTURE DESIGN

The allotment is not fenced into pastures.

STOCKWATER DESIGN

Stockwater on the allotment consists of the following:

- Map Reference 1: Sheep Spring with a water tank.
- Map Reference 2: Miller Spring with a water tank.
- Map Reference 3: Chokecherry Spring with a water tank, developed by the National Mustang Association.
- Map Reference 4: Miser Spring with a water tank.
- Map Reference 5: Dow Spring with a water tank.

GRAZING AND CATTLE MOVEMENT

Cattle are free to roam about the allotment at will. There are wild horses in this allotment. Cattle drift into the allotment from the Oak Wells and Rabbit Spring allotments. Some of the most valued forage base is located in the Miller Flat Area (Map Reference 6).

5.2.2 Fencing Preference

Undecided.

5.2.3 Proposed Railroad Alignment

The proposed track and service road will enter from the Uvada Allotment (Map Reference 7). From that point the railroad will travel across the southern half of the Sheep Spring Allotment, swing north and exit the allotment into the northeast corner of the Buckboard Allotment (Map Reference 8).

5.2.4 Impacts and Mitigation Without Fence

IMPACTS TO VEGETATION AND FORAGE

Inside the 269 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The track and service road will cross a fence upon entering the allotment from the east at Map Reference 7, and upon exiting the allotment at Map Reference 8. This will leave openings for cattle to enter or exit the allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO GRAZING AND CATTLE MOVEMENT

Cattle from the Oak Wells Allotment and the Rabbit Spring Allotment drift to the Miller Flat Area. The proposed track and service road will take out production of forage and will compound the cattle concentration problem. The track and service road will impede movement of cattle from Miller Spring to the south of the track and service road, and in general impede the free movement of cattle on the allotment and make it more difficult to gather cattle.

MITIGATION

1. Complete the fence on the south end of the allotment to keep cows from the Oak Wells Allotment from concentrating on the south side of the track and service road, for a total of 3.8 miles of fence (Map Reference 9). This will stop cattle from the Oak Wells Allotment from drifting into the Sheep Springs Allotment.
2. Fence the northwest corner of the allotment (Map Reference 10) to keep cows from the Rabbit Spring Allotment from drifting down to Miller Flat and concentrating along the proposed track and service road (total of seven miles of fence). The proposed fence will stop cattle from the Rabbit Spring Allotment from drifting onto Miller Flat (Map Reference 6).
3. Lay a pipeline going south from Miller Spring under the track and road, and equip the pipeline with a water trough at Map Reference 11 (total of 1.5 miles of pipe and one water trough). This will minimize the problem of cows traveling across the track to get to water.
4. Bring a pipeline from private land just off of the southeast corner of the allotment into the allotment and equip it with a water trough at Map Reference 12. This will mitigate the problem of cattle crossing the track to get to water (total .5 mile of pipeline and one trough).
5. Construct a cattle crossing every mile along the track, with locations to be determined after the centerline of the track is staked. Cattle crossings will consist of earth ramps with approaches not to exceed 25 percent grade. The road crossings at Map References 13, 14, and 15, and the trail crossing at Map Reference 8 will serve a dual purpose as cattle crossings. In some places it may be appropriate to use underpasses rather than cattle crossings. This will entail a total of eight cattle crossings or underpasses.

The above mitigation measures will also help to offset the loss forage from construction activities.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross three roads (Map References 13, 14, 15), and will cross one trail (Map References 8). This will disrupt vehicle traffic.

MITIGATION

Construct a road crossing at each road with approaches not to exceed six percent grade, for a total of three crossings. Construct a trail crossing at the trail with approaches not to exceed twelve percent. This will double as a cattle crossing.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Leaving the right-of-way unfenced increases the risk of cattle getting on the track and being hit by a train.

MITIGATION

The Permittee is undecided whether or not the risk of animal-train collisions is sufficient to warrant fencing the right-of-way. The fence will cause additional impacts that will require more mitigation. Fencing the right-of-way gives no guarantee that cattle will not be killed on the track. This is especially true as the fence ages and livestock containment properties are reduced. The With Fencing alternative is analyzed below for comparison purposes.

5.2.5 Impacts and Mitigation With Fencing

Fencing the right-of-way will require 21.5 miles of fence.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The exact amount of forage lost within the right-of-way cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

The proposed railroad will cross a fence and leave an opening at Map Reference 7 where the proposed railroad joins the existing Union Pacific Railroad track, however this does not present an adverse impact. There will also be an opening where the proposed railroad leaves the Sheep Spring Allotment and enters the Buckboard Springs Allotment. This will allow cattle from the Buckboard Spring Allotment to enter the right-of-way where they could be hit by a train.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road in the opening at the Buckboard Spring Allotment (Map Reference 8).

IMPACTS TO PASTURE DESIGN AND CATTLE MOVEMENT

Fencing the right-of-way will create a definite barrier and division of the allotment into two separate pastures, labeled the Sheep Springs Pasture and the Miller Flat Pasture on Figure 5.2.1. The fenced right-of-way will be a barrier to cattle movement from one pasture to the other. The cattle crossings detailed in the *Without Fencing* alternative will be fenced into the right-of-way.

MITIGATION

Moving cattle from one side of the right-of-way to the other can be accomplished in three ways:

1. Construct a set of gates at each of the eleven cattle crossings described in the *Without Fencing* alternative. Gates should be sixteen-foot heavy gauge steel hinged on ten-inch

well casings set in concrete. Road crossings can be used in conjunction with cattle crossings, as with the *Without Fencing* alternative.

2. Construct underpasses instead of cattle crossings so that cattle can move from pasture to pasture without being herded through gates. Two road cattleguards on the service road will be required at each underpass so that cattle can cross over the service road and under the track.
3. A combination of underpasses and cattle crossings with gates. This option and specific locations of underpasses and cattle crossings can be examined after the right-of-way is staked.

IMPACTS TO ROADS AND TRAILS

The proposed railroad will cross three roads and one trail. Fencing the right-of-way will cut off access to the roads and trails.

MITIGATION

Install a road cattleguard on each side of the right-of-way at each road and trail crossing, for a total of eight road cattleguards.

Table 5.2.3 Sheep Springs Allotment Impacted Features

Permittee Fencing Preference: Undecided

Impacted Features	Crestline Option
Stockwaters w/in 4 miles	5
Stockwaters w/in 1 mile	2
Fences (ea)	2
Roads (ea)	3
Trails (ea)	1
Pipelines (ea)	1
Other	

Table 5.2.4 Sheep Springs Allotment Mitigation Project Comparison

Proposed Mitigation Units	Crestline Option	
	Without Fencing	With Fencing
Fence (mi)	10.8	32.3
Gates (ea)	10	28
Railroad Cattleguards (ea)	2	2
Road Cattleguards (ea)	2	10
Road Crossings (ea)	3	3
Trail Crossings (ea)	1	1
Cattle Crossings (ea)	8	8
Sheep Crossings (ea)		
Pipeline Construction (mi)	2.0	2.0
Pipeline Crossings (ea)	1	1
Unspecified Stockwaters		
Troughs (ea)	2	2
Wells (ea)		
Springs (ea)		
Other		

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

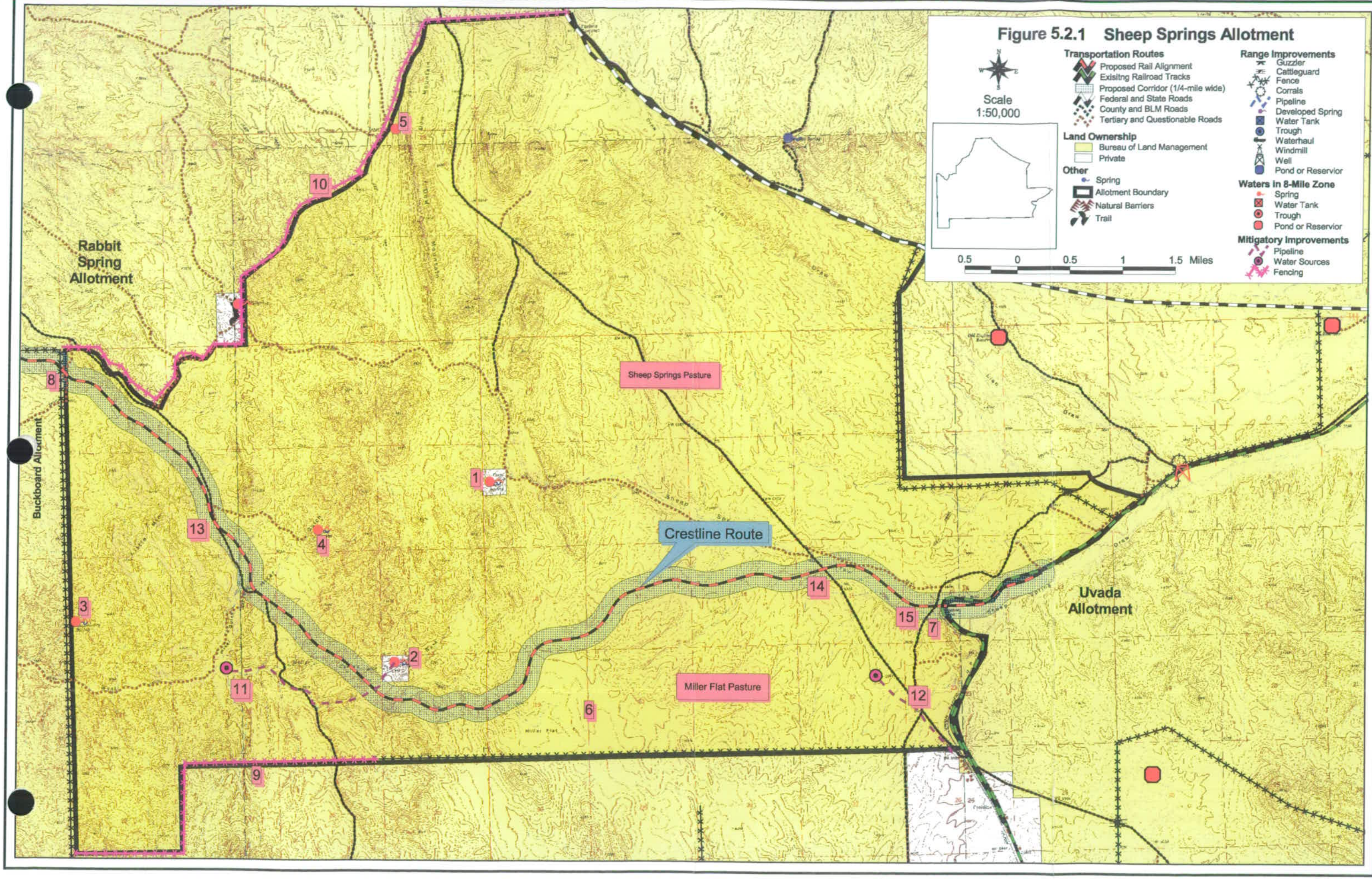
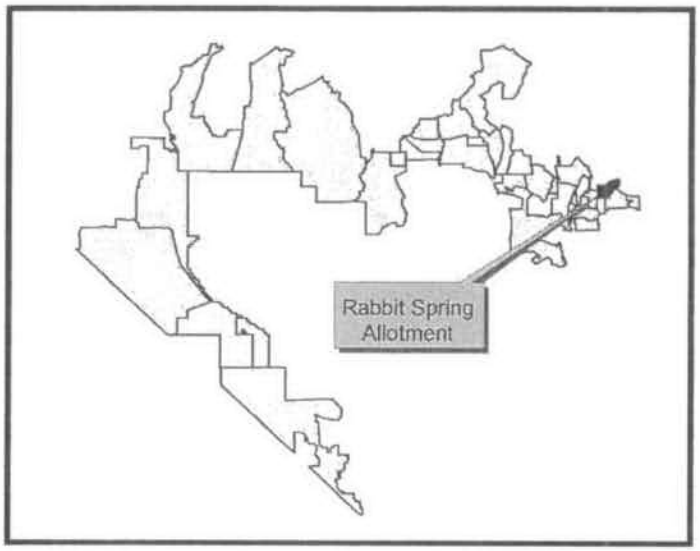


Figure 5.2.1 Sheep Springs Allotment
Scale
1:50,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
Waters in 8-Mile Zone
Spring
Water Tank
Trough
Pond or Reservior
Mitigatory Improvements
Pipeline
Water Sources
Fencing
0.5 0 0.5 1 1.5 Miles
Rabbit Spring Allotment
Buckboard Allotment
Uvada Allotment
Sheep Springs Pasture
Miller Flat Pasture
Crestline Route
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

5.3 RABBIT SPRING ALLOTMENT

Permittee: Garth Jensen
Address: 881 S. 170 W. Apt 4
Cedar City, UT 84720-3905

Contact: John and Lee Mathews
Address: Box 569
Pioche, NV 89043



5.3.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The northwest corner of the Rabbit Spring Allotment is located approximately six miles east of Panaca. It is approximately five miles long east to west, and approximately 4.5 miles long north and south, with a neck that runs approximately three miles to the north and widens to approximately 3.5 miles wide east and west. State Route 25 runs along the west side of the allotment and then cuts across the neck. See Tables 5.3.1 and 5.3.2, and Figure 5.3.1 for details of the allotment boundary and railroad route.

Table 5.3.1 Rabbit Spring Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
20,646	120	93 cattle*	6-01 / 3-15	884	Crestline Option	
Total – 20,766		467 sheep*	6-01 / 3-15	887	1.41	35

* Dual use permit. Either cattle or sheep can be permitted but not as combined use. The current permit is for cattle.

Table 5.3.2 Rabbit Spring Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
884	1,115	1,999

GRAZING SYSTEM

Summer-winter use with cattle free to graze at will.

PASTURE DESIGN

The Rabbit Spring Allotment is not fenced into pastures.

STOCKWATER DESIGN

Livestock water is located in the southeast corner of the allotment at the Rabbit Spring (Map Reference 1), and also in the White Wash (Map Reference 2). Water is also hauled to

temporary sites throughout the allotment. Because of the proposed location of the track and service road, they will not impact the service area of either of these stockwater sources.

5.3.2 Fencing Preference

The Permittee prefers that the proposed track be fenced.

5.3.3 Proposed Railroad Alignment

The Crestline Option as proposed would enter the allotment along the western allotment boundary from the Buckboard Spring Allotment (Map Reference 3). It appears on the current figures that the right-of-way will be located within the Buckboard Spring Allotment to the south. It is logical that if the right-of-way does enter the southern boundary of the Rabbit Spring Allotment that it be fenced on the north side so that the right-of-way is fenced into the Buckboard Spring Allotment. The Permittee agrees with this. All impacts and mitigation for the portion of the railroad at the southern boundary are addressed in the Buckboard Spring Allotment analysis.

5.3.4 Impacts and Mitigation Without Fencing

IMPACTS TO VEGETATION AND FORAGE

Inside the 35 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

As the track and service road enter from the south they will cross a fence (Map Reference 3), and cross a fence at the exit (Map Reference 4). These openings will allow cattle to leave the allotment at will, or cattle from other allotments to enter the Rabbit Spring Allotment.

MITIGATION

Install a railroad cattleguard and a cattleguard on the service road at each fence opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK FROM COLLISIONS

The proposed track location is approximately 4.5 miles from a stockwater source, and the corner where the track will cross likely receives light use. However, because it is in a corner, cattle may occasionally congregate there. There is some risk of cattle being hit by trains if they get on the track.

MITIGATION

The Permittee feels that the risk is sufficient to warrant fencing the track.

5.3.5 Impacts and Mitigation With Fencing

Fencing the right-of-way will require 2.8 miles of fencing.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way is permanently lost.

MITIGATION

The exact amount of forage loss cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

As the track and service road enter from the south they will cross a fence (Map Reference 3), and cross another fence at the exit (Map Reference 4). With the right-of-way fenced there will be an alleyway for cattle to go between the Buckboard Springs Allotment and Panaca Cattle Allotment.

MITIGATION

Install a railroad cattleguard and a cattleguard on the service road at each fence opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

If the right-of-way is fenced there is the chance that cattle may become trapped within the right-of-way.

MITIGATION

Place a twelve-foot heavy gauge steel gate hinged on ten-inch casings set in concrete on each side of the right-of-way, at about the middle of the right-of-way. The Permittees can chain and padlock the gates to control access in and out of the allotment.

Table 5.3.3 Rabbit Spring Allotment Impacted Features

Permittee Fencing Preference: With Fencing

Impacted Features	Crestline Option
Stockwaters w/in 4 miles	
Stockwaters w/in 1 mile	
Fences (ea)	2
Roads (ea)	
Trails (ea)	
Pipelines (ea)	
Other	

Table 5.3.4 Rabbit Spring Allotment Mitigation Project Comparison

Proposed Mitigation Units	Crestline Option	
	Without Fencing	With Fencing
Fence (mi)		2.8
Gates (ea)		2
Railroad Cattleguards (ea)	2	2
Road Cattleguards (ea)	2	2
Road Crossings (ea)		
Trail Crossings (ea)		
Cattle Crossings (ea)		
Sheep Crossings (ea)		
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Unspecified Stockwaters		
Troughs (ea)		
Wells (ea)		
Springs (ea)		
Other		

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

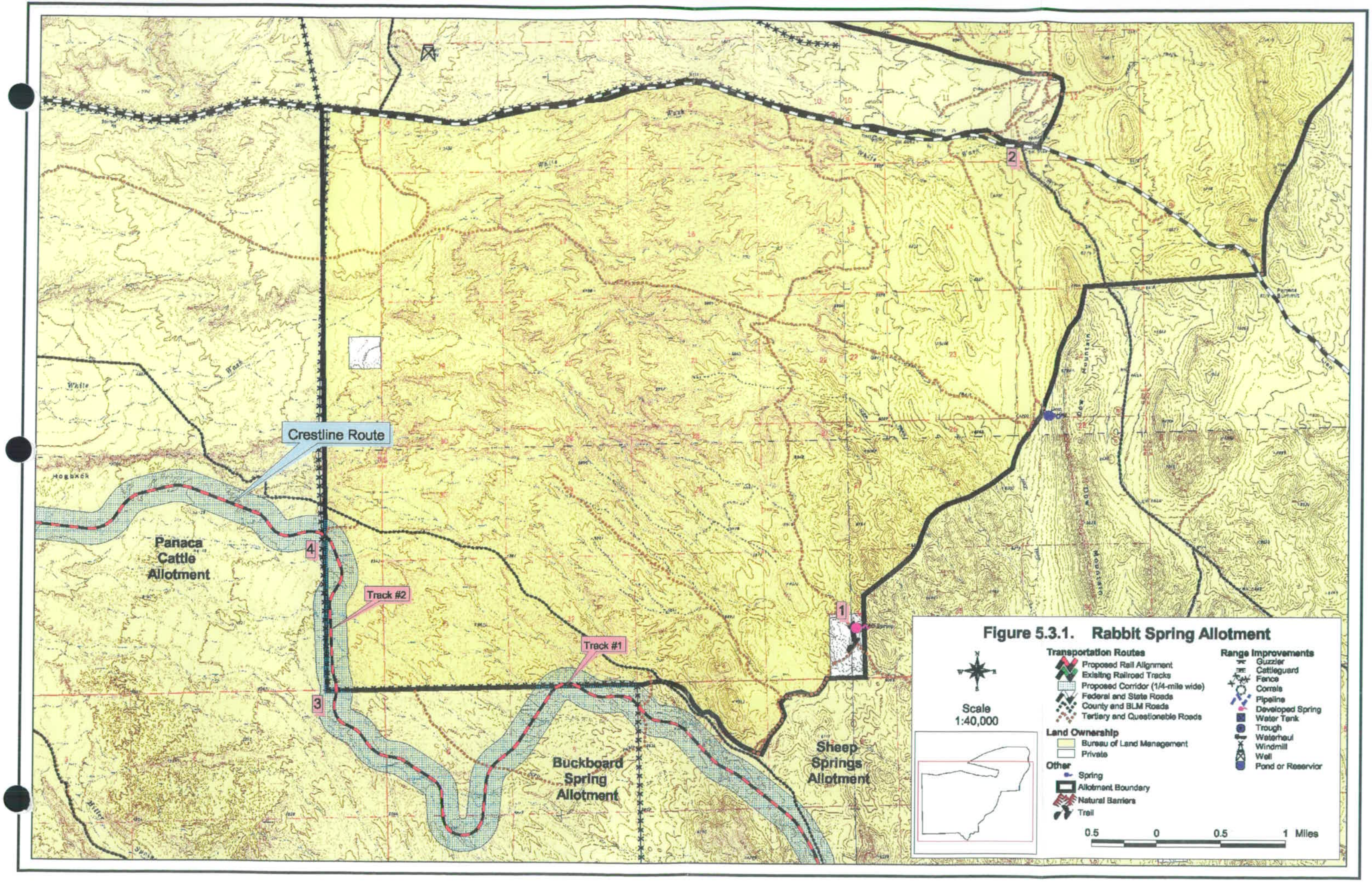
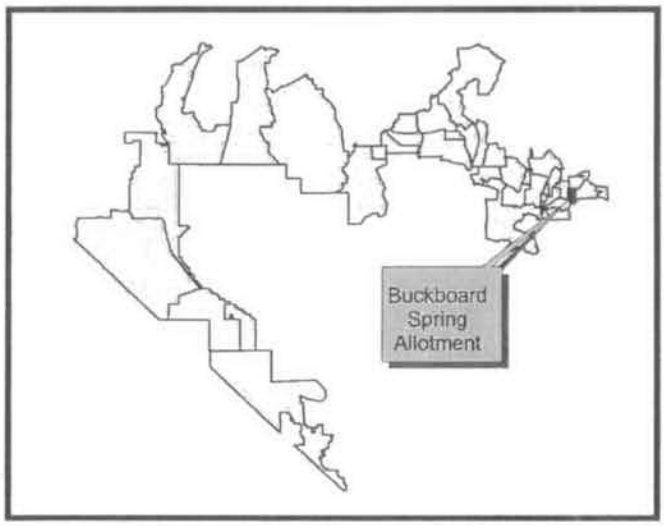


Figure 5.3.1. Rabbit Spring Allotment

5.4 BUCKBOARD SPRING ALLOTMENT

Permittee: Lewis Wendell Mathews
Contact: Lewis Wendell Mathews
Address: Box 82
Panaca, NV 89042



5.4.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The northwest corner of the Buckboard Spring Allotment is located approximately thirteen miles southeast of Panaca. The allotment is approximately six miles long north and south and about three miles wide east and west except for the south end, which is about two miles wide. The west side is not fenced where the allotment boundary meets the Panaca Cattle Allotment and the Little Mountain Allotment. The south end, the eastside, and the north end are fenced. The Permittee is not currently utilizing the grazing allotment. See Tables 5.4.1 and 5.4.2, and Figure 5.4.1 for details of the allotment boundary and railroad route.

Table 5.4.1 Buckboard Spring Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
10,686	0	22 cattle	3-01 / 2-28	264	Crestline Option	
					3.7	93

Table 5.4.2 Buckboard Spring Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
263	88	351

GRAZING SYSTEM

Year long. Cattle stay out in winter if there is enough precipitation to provide water.

PASTURE DESIGN

The allotment is not currently cross-fenced into pastures.

STOCKWATERS

There are four stockwater sources on the allotment:

1. Buckboard Spring, located in the Buckboard Wash (Map Reference 1). The spring is not a reliable water source.
2. Keel Spring (Map Reference 2).

3. Miller Spring Wash (Map Reference 3) sometimes has water present.
4. At times cattle stay out during the winter when there are precipitation events.

5.4.2 Fencing Preference

The Permittee prefers that the proposed track not be fenced.

5.4.3 Proposed Railroad Alignment

The proposed track and service road will enter the allotment at the northeast corner, from the Sheep Springs Allotment (Map Reference 4). The track and service road will cross the northeast corner of the allotment for about one mile, and may just cross into the Rabbit Springs Allotment (Map Reference 5). The track and service road then loop southwest for just over a mile and turn back northwest before exiting into the southwest corner of the Rabbit Springs Allotment. The actual alignment of the track and service road through the allotment cannot be determined until the centerline of the track is staked.

5.4.4 Impacts and Mitigation Without Fencing

IMPACTS TO VEGETATION AND FORAGE

Inside the 93 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The proposed track and service road will enter through a fence between the Buckboard Spring Allotment and the Sheep Springs Allotment (Map Reference 4) and pass through a fence at the exit into the Rabbit Springs Allotment (Map Reference 6). These openings will allow cattle to drift in and out of the allotment. Whether or not the track and service road will pass through the fence at Map Reference 5 is unknown until the track is staked.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each fence opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

The proposed track and service road will separate an area of approximately 640 acres from the rest of the allotment, where the track makes a 'U' shaped loop between Map References 5 and 6. These will create an impediment to cattle movement, but will not completely isolate the area from the rest of the allotment.

MITIGATION

It may be possible to improve water flow from Keel Spring and Buckboard Spring. There may also be a way to develop a water source in Miller Spring Wash. These possibilities should be explored. This will also help offset forage loss from construction activities.

To make the area within the loop available for potential cattle use, construct two cattle crossings consisting of earthen ramps with approaches not to exceed 25 percent grade. Develop a cattle crossing in conjunction with the trail crossing at Map Reference 7. This will entail a total of three cattle crossings.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross one trail at Map Reference 7.

MITIGATION

Construct a trail crossing with approaches not to exceed twelve percent grade. This can be expanded into a cattle crossing.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is a risk that cattle may get on the track and be hit by a train.

MITIGATION

Fence the right-of-way. The Permittee feels the risk is not sufficient to warrant fencing and prefers the *Without Fencing* Alternative.

5.4.5 Impacts and Mitigation With Fencing

Fencing the right-of-way will require 7.5 miles of fence.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The exact amount of forage loss within the right-of-way cannot be determined until the track is staked and the right-of-way alignment finalized. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

The proposed track and service road will pass through a fence on entry and exit (Map References 4 and 6). This will allow cattle from the Sheep Springs and Rabbit Springs Allotments to wander into the right-of-way on the Buckboard Spring Allotment and be hit by a train.

MITIGATION

Install a railroad cattleguard and a cattleguard on the service road in each opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing the right-of-way will prevent cattle from using the area north of the loop of the track, about 640 acres, by separating the area within the loop from the rest of the allotment.

MITIGATION

Install three underpasses so cattle can access the area within the loop as they choose. The underpasses will allow cattle to go under the track instead of over, reducing the risk of cattle-train collisions. Each underpass will require two cattleguards on the service road, for a total of three underpasses and six road cattleguards.

It may be possible to improve the water flow from Keel Spring and Buckboard Spring. There may also be a way to develop a water source in Miller Spring Wash. The additional water would increase the forage available in the allotment.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross one trail at Map Reference 7, making the trail unusable.

MITIGATION

Install a trail crossing with approaches not to exceed twelve percent. Install a road cattleguard in the fence on each side of the right-of-way. This will entail a total of one trail crossing and two road cattleguards. This could double as a cattle crossing with the installation of a gate in the fence on each side of the right-of-way.

Table 5.4.3 Buckboard spring Allotment Impacted Features

Permittee Fencing Preference: Without Fencing

Impacted Features	Crestline Option
Stockwaters w/in 4 miles	3
Stockwaters w/in 1 mile	
Fences (ea)	2
Roads (ea)	
Trails (ea)	1
Pipelines (ea)	
Other	

Table 5.4.4 Buckboard Spring Allotment Mitigation Project Comparison

Proposed Mitigation Units	Crestline Option	
	Without Fencing	With Fencing
Fence (mi)		7.5
Gates (ea)		2
Railroad Cattleguards (ea)	2	2
Road Cattleguards (ea)		8
Road Crossings (ea)		
Trail Crossings (ea)	1	1
Cattle Crossings (ea)	2	2
Sheep Crossings (ea)		
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Unspecified Stockwaters		
Troughs (ea)		
Wells (ea)		
Springs (ea)	3	3

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

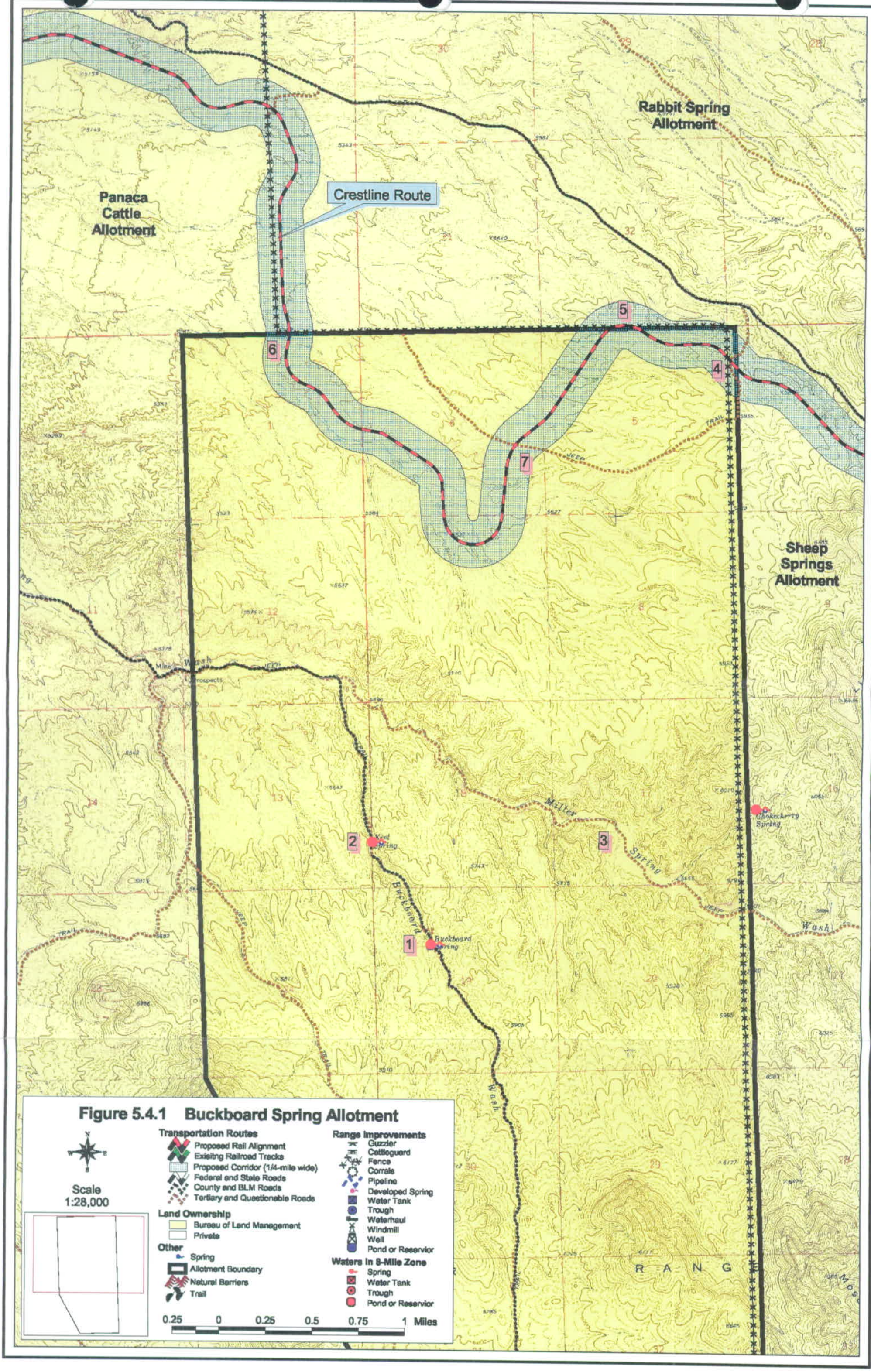
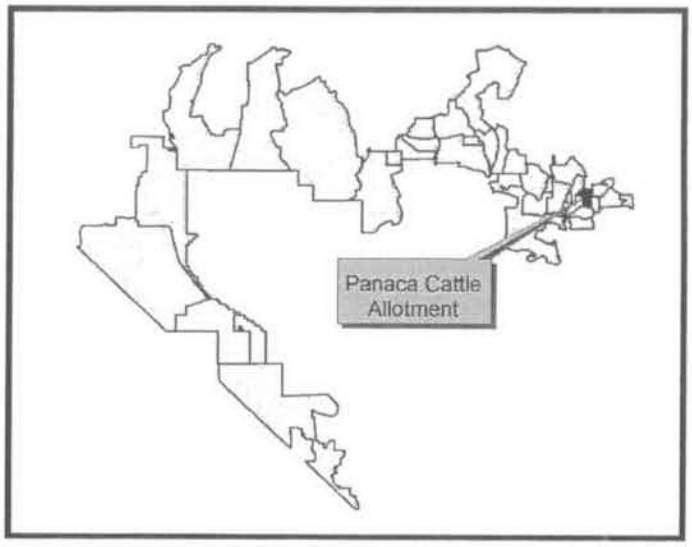


Figure 5.4.1 Buckboard Spring Allotment

5.5 PANACA CATTLE ALLOTMENT

Permittee 1: Orren Nash
Contact: Orren Nash
Address: Box 39
Hiko, NV 89017

Permittee 2: Lewis Wendell Mathews
Contact: L. Wendell Mathews
Address: Box 82
Panaca, NV 89042



5.5.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The northwest corner of the allotment is located approximately four miles southeast of Panaca. The Panaca Cattle Allotment is approximately seven miles long north and south. The south end is approximately three miles wide east and west, and the north end is approximately five miles wide. The north end extends down to Meadow Valley, where it joins private land. Miller Spring Wash runs from the private ground on the west in a southeast direction, where it originates in the Buckboard Spring Allotment. The allotment is unfenced on the south, southeast, and north boundaries, and is not fenced internally into pastures. See Tables 5.5.1 and 5.5.2, and Figure 5.5.1 for details of the allotment boundary and railroad route.

Table 5.5.1 Panaca Cattle Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT				TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**		**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
15,930	28	Nash	25 cattle	3-01 / 2-29	301	Crestline Option	
Total – 15,959		Mathews	14 cattle	3-01 / 2-28	168	5.58	140

Table 5.5.2 Panaca Cattle Allotment Permitted Use AUMs

	ACTIVE	SUSPENDED	TOTAL
Nash	290	153	443
Mathews	163	85	248
Total	453	238	691

GRAZING SYSTEM

- Nash: Year long, however currently this Permittee makes winter use of the allotment.
- Mathews: Year long, however this Permittee has not made use of the allotment for six or seven years.

Cattle graze freely, but primarily stay near the water sources (Miller Spring Wash and the water sources on private property in Meadow Valley).

STOCKWATER DESIGN

The allotment is poorly watered. Miller Spring Wash has water only occasionally, and generally runs for only a short time.

5.5.2 Fencing Preference

Mr. Nash prefers that the proposed track and service road be fenced to avoid animal-train collisions. Mr. Mathews did not express a preference.

5.5.3 Proposed Railroad Alignment

The proposed Crestline Option will enter the allotment about 1.5 miles below the north boundary of the allotment. The proposed track and service road run south of and nearly parallel to the Big Hogback, a long east-west ridge located south of Panaca. They will exit the allotment onto private land in Meadow Valley.

5.5.4 Impacts and Mitigation Without Fencing

IMPACTS TO VEGETATION AND FORAGE

Inside the 140 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCING

The track and service road will enter through an existing fence boundary in common with the Rabbit Spring Allotment, and will exit into the private land in Meadow Valley (Map References 2 & 3). These exit and entry points will leave openings for cattle to wander in and out of the allotment at will.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at the entry and exits points of the track and service road, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO PASTURE DESIGN

The track and service road will divide the allotment into two use areas, especially if there is a substantial amount of cut and fill for the railroad pad. The White Wash area (Map Reference 5) will receive very little use even with cattle crossings or underpasses.

MITIGATION

Drill a well in the White Wash area. This will make the White Wash area useable and keep cattle from concentrating along the track, in addition to offsetting the loss of forage caused by the construction.

IMPACTS TO LIVESTOCK MOVEMENT

Cattle will tend to make heavy use along the track as they enter and leave water sources in Meadow Valley.

MITIGATION

Construct a cattle crossing or underpass every mile along the track. The exact location is to be determined after the centerline of the track is staked. (With or without fencing, Mr. Nash wants an underpass at Map Reference 1). This mitigation calls for a total of four crossings or underpasses.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will intercept one road (Map Reference 4).

MITIGATION

Construct a road crossing with approaches not to exceed six percent grade. This will also serve as one cattle crossing.

IMPACTS TO LIVESTOCK FROM COLLISIONS

If the track and service road are left unfenced there is a greater chance of animal-train collisions. Mr. Nash feels that this is a very real risk.

MITIGATION

Fence the right-of-way to lessen the chance of animals being hit by trains on the track or by vehicles on the service road.

5.5.5 Impacts and Mitigation With Fencing

Fencing the right-of-way will require 11.2 miles of fence. If the right-of-way is fenced the same impacts will occur with the same mitigation as the *Without Fencing* alternative, with the additional impacts and mitigation detailed below.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The exact loss of forage cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

IMPACTS TO LIVESTOCK MOVEMENT

If the right-of-way is fenced it will divide the allotment into two separate pastures. Cattle will not be able to use the White Wash north of the right-of-way.

MITIGATION

To prevent the allotment being divided, install five underpasses so cattle can move at will from one side of the right-of-way to the other.

In addition, drill a well in the White Wash (Map Reference 5). This well is more critical for the *With Fencing* alternative than the *Without Fencing* alternative. Without the well the White Wash area will, for all practical purposes, be cut off from grazing even if underpasses are installed. The well will offset the loss of forage in the right-of-way, and reduce concentration of cattle along the right-of-way by opening up an additional are for grazing.

This mitigation will entail a total of five underpasses and one well.

IMPACTS TO ROADS AND TRAILS

If the right-of-way is fenced, the fence will cross the road at Map Reference 4.

MITIGATION

Install a road cattleguard on each side of the right-of-way, for a total of two road cattleguards.

Table 5.5.3 Panaca Cattle Allotment Impacted Features

Permittee Fencing Preference: With Fence

Impacted Features	Crestline Option
Stockwaters w/in 4 miles	
Stockwaters w/in 1 mile	
Fences (ea)	2
Roads (ea)	1
Trails (ea)	
Pipelines (ea)	
Other	

Table 5.5.4 Panaca Cattle Allotment Mitigation Project Comparison

Proposed Mitigation Units	Crestline Option	
	Without Fencing	With Fencing
Fence (mi)		11.2
Gates (ea)		14
Railroad Cattleguards (ea)	2	2
Road Cattleguards (ea)	2	4
Road Crossings (ea)	1	1
Trail Crossings (ea)		
Cattle Crossings (ea)	4	4
Sheep Crossings (ea)		
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Unspecified Stockwaters		
Troughs (ea)	1	1
Wells (ea)	1	1
Springs (ea)		
Other		

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available. Topography will dictate where either underpasses or cattle crossings are more appropriate. Placement of these structures cannot be determined until the right-of-way is staked.*

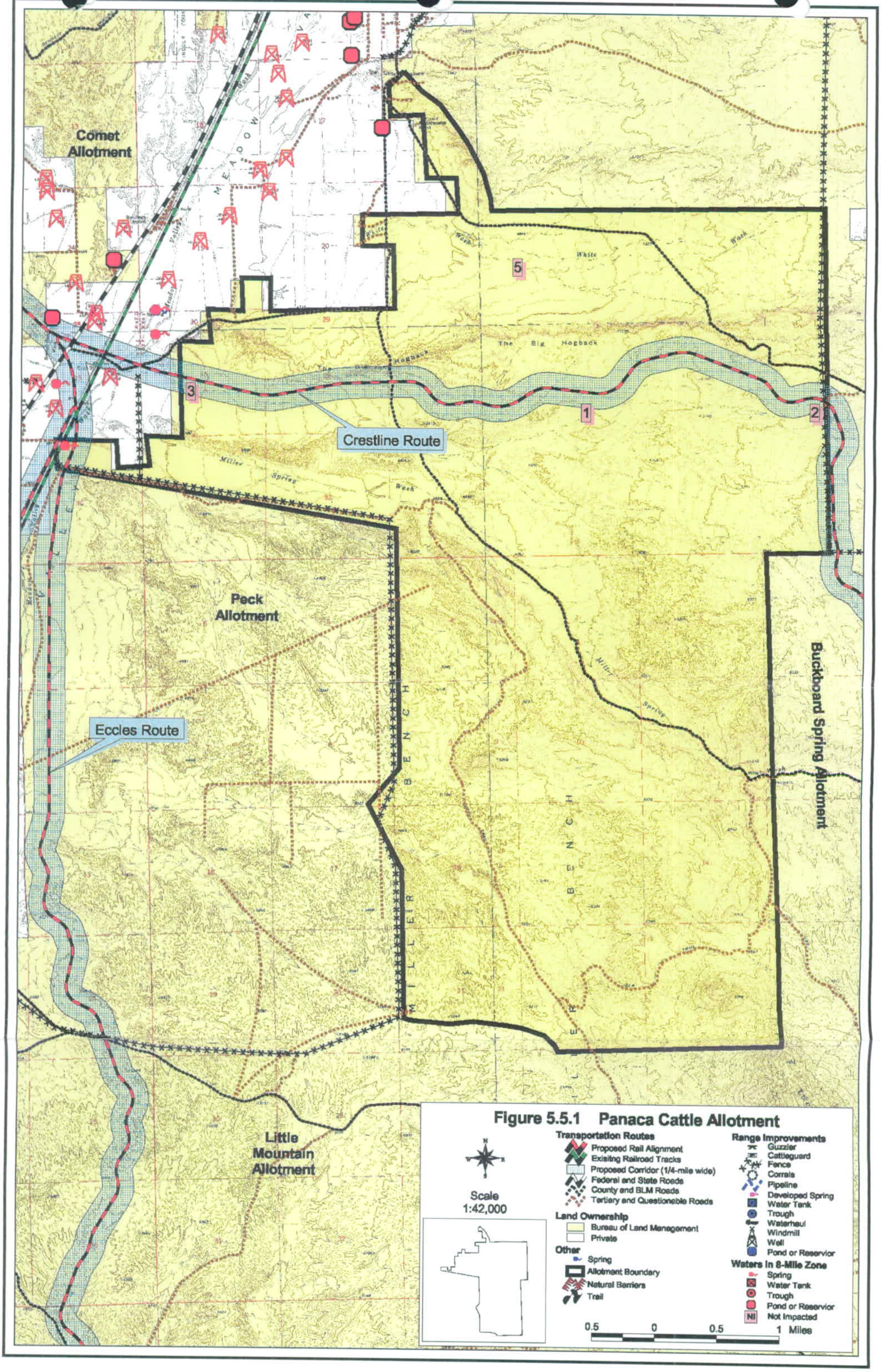
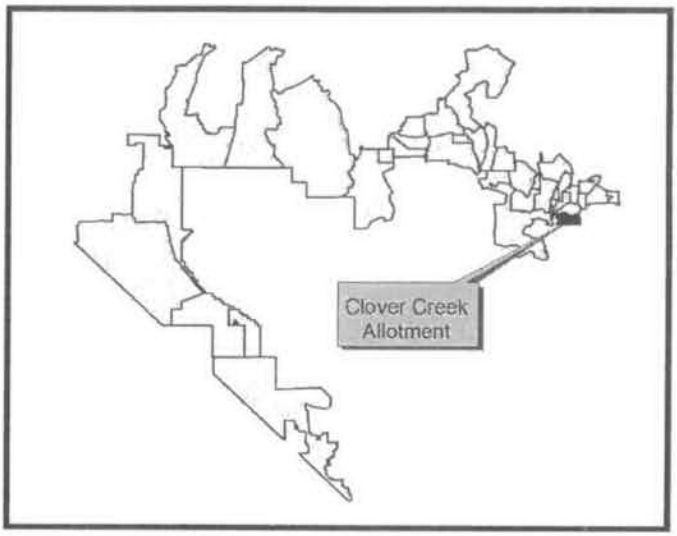


Figure 5.5.1 Panaca Cattle Allotment

5.6 CLOVER CREEK ALLOTMENT

Permittee 1: National Mustang Association
Contact: Richard Sewing
Address: Box 1367
Cedar City, UT 84720

Permittee 2: Roger Dieleman
Contact: Roger Dieleman
Address: 5454 Arville
Las Vegas, NV 89118



5.6.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The northwest corner of the Clover Creek Allotment is approximately three miles east of Caliente. The allotment is approximately nine miles east and west and about four miles north and south. It is unfenced on the south and west boundaries. The fence between the Little Mountain Allotment to the north and the Clover Creek Allotment is down and is not a barrier between the two. It is unknown whether the northwest corner of the allotment (where there is private land) is fenced. See Tables 5.6.1 and 5.6.2, and Figure 5.6.1 for details of the allotment and railroad route.

Table 5.6.1 Clover Creek Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT				TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**		**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
22,538	246	Dieleman	74 cattle	11-01 / 4-30	443	Eccles Option	
Total – 22,784		Nat'l Mustang Assoc.	28 cattle	5-01 / 10-27	166	.79	20

Table 5.6.2 Clover Creek Allotment Permitted Use AUMs

	ACTIVE	SUSPENDED	TOTAL
Dieleman	447	357	804
Williams	166	137	303
Total	**613**	494	1107

GRAZING SYSTEM

The National Mustang Association permit is for spring-summer-fall use, however the Association leaves the forage for wild horses that utilize the allotment year-round.

Dieleman: Cattle are moved about the allotment as necessary to take advantage of water and forage.

PASTURE DESIGN

The existing Union Pacific Railroad splits the allotment into two pastures. The fence along the railroad is not maintained and does not provide an adequate barrier to livestock movement across the track. There is an underpass at Ash Valley (Map Reference 2) that is filled with debris from floods to the extent that it cannot be used by cattle. Mr. Dieleman trucks cattle and hauls water up Barnes Canyon to the south end of the allotment and into the Clover Creek area.

STOCKWATER

There are several springs located in the west portion of the allotment in Ash Canyon. There is a well in Barnes Canyon about .75 miles from the bottom end of the canyon. Mustangs use water at Oak Spring at the very northwest corner of the allotment. There are three springs on the east side of the existing railroad in Chokecherry Canyon. In good water years there is some grazing and water availability on Dutch Flat. There are a total of eleven water sources within four miles of the proposed track, however all are not accessible to cattle.

5.6.2 Fencing Preference

Mr. Sewing prefers that the track not be fenced, as fencing could disrupt wild horse movement throughout the allotment.

Mr. Dieleman disagrees and states:

> Security must be a major priority for the line. Our nation is, for all practical purposes, under siege, and we are trying to find a solution for storing one of the most toxic substances on earth. It is ludicrous to believe that this train line can be secure, even for a short stretch, without security systems and measures in place. To that end, we feel that it is imperative that this rail line be fenced and secured. This will not only deter vandals and minor lawbreakers, but will be some impediment to other more hostile enemies. Furthermore, fences will protect trains from livestock, wild animals and horses roaming on or near the tracks, which often lead to accidents and possible serious harm. If a fence is installed there must be a method to allow property owners and permit holders access, at any time, across the tracks, either through keyed gates or remote-controlled electrical gates.

5.6.3 Proposed Railroad Alignment

The proposed Eccles Option will join the existing UPRR line on Dutch Flat. There will most likely be a switchyard here since this is the location where freight would be transferred. Impacts and mitigation cannot be specifically determined until the centerline of the track is staked, and until the design is available showing the amount of cuts and fills. The depth of cuts and fills will have a large bearing on the degree of obstruction of livestock and vehicle movement.

Mr. Dieleman states:

> A switchyard would be a much larger endeavor than even a siding and it is thought that it could require much more than twenty acres to construct, maintain and secure such a switch yard. I do not want a "blank check" issued to grab as much land out of the allotment as the federal government deems necessary to promote their newest boondoggle, namely Yucca Mountain. Additionally, will the government adequately secure such a switching yard against terrorist activity? It had better prepare for the likelihood that the wide open expanses of Lincoln County would be a natural target for terrorists as well as environmental and social protesters and activists.

5.6.4 Impacts and Mitigation Without Fencing

IMPACTS TO VEGETATION AND FORAGE

Inside the 20 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The proposed track and service road will cross a fence as it joins the existing Union Pacific Railroad track.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road in the fence opening.

IMPACTS TO LIVESTOCK MOVEMENT

The proposed track may block cattle movement to the upper end of Dutch Flat and the lower end of Clover Creek.

MITIGATION

Construct a crossing suitable for cattle to cross the existing track near the confluence of Chokecherry Canyon and Clover Creek to better utilize the areas west and east of Clover Creek. (Map Ref. 1)

In addition to the above, provide a suitable cattle crossing near the east end of the existing railroad tunnel between Ash Canyon and Barnes Canyon (Map Reference 2) to allow cattle to cross the existing track by means other than hauling.

IMPACTS TO ROADS AND TRAILS

Depending on final placement of the proposed track it may cross the existing service road along the UPRR track between Dutch Flat and Clover Creek used to move cattle and maintain the allotment.

MITIGATION

Keep the existing or new service road open for use and passage between Dutch Flat and Clover Creek.

If public access is denied along the track for security reasons, the Permittees will need alternate access to the allotment, as these routes are often the only available way into some areas of the allotment.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is a risk of livestock-train collisions if the right-of-way is left unfenced. Mr. Sewing does not see this risk as sufficient to warrant fencing the right-of-way. Mr. Dieleman disagrees, as noted above in Section 5.6.2. The *With Fencing* alternative is discussed below in order to fully analyze all impacts to the allotment from the proposed railroad.

5.6.5 Impacts and Mitigation With Fencing

Fencing the right-of-way will require 1.6 miles of fence, more if a switchyard is included in the construction plan. The actual amount of fencing cannot be determined until the project is finalized and the right-of-way is staked.

It is unlikely that fencing the right-of-way will create additional impacts beyond those discussed in this section. However, there may be impacts created depending on the exact track alignment and how it will tie into the existing UPRR track.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The amount of forage loss cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing the proposed track may block cattle movement around the upper areas of Dutch Flat.

MITIGATION

Construct a crossing suitable for cattle to cross the existing track near the confluence of Chokecherry Canyon and Clover Creek to better utilize the areas west and east of Clover Creek. (Map Ref. 1)

In addition to the above, provide a suitable cattle crossing near the east end of the existing railroad tunnel between Ash Canyon and Barnes Canyon (Map Reference 2) to allow cattle to cross the existing track by means other than hauling.

Mr. Dieleman states that:

> He owns both the grazing rights for Clover Creek and multiple water rights throughout the area (including Clover Creek itself), he should be able to graze his cattle on the north side of the railroad track, while remaining south of the northern most boundary of the Clover Creek allotment.

And:

> With reference to the passage of cattle from one portion of the allotment to the other, cattle guards are not a viable option. They prevent the herding of cattle around the allotment on established roads and the only access, other than trucking the cattle, is to herd them under the railroad via the bridges which are noted on the attached maps. It is preferable to keep bridges over the washes, with sufficient clearance to allow the herding the cattle around the allotment without the need to attempt crossing cattle guards or having to truck the cattle. Furthermore, with reference the rail bridges, the railroad has not been extremely diligent in cleaning the washes and bridges under the track. As noted in your letter, debris restricts not only water flow, but movement of livestock, horses, wild game and individuals. Finally, the county, which has an obligation to maintain roads in this area, has been lacking in recent years. The road up Barnes Canyon has been impassable for quite some time, making the trucking of cattle, equipment, troughs, etc., nearly impossible.

IMPACTS TO ROADS AND TRAILS

Fencing the proposed track may block the access from Dutch Flat to Clover Creek that is used to move cattle and maintain the allotment.

MITIGATION

Install cattleguards on either side of the track along the new or existing service road to maintain the current access.

IMPACT- SWITCHYARD

If a switchyard is constructed, the proposed track and service road will create an opening when they exit the switchyard and leave an opening for cattle to enter the right-of-way.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road where the track and service road exit the switchyard.

Table 5.6.3 Clover Creek Allotment Impacted Features

Permittee Fencing Preference:
Dieleman: With Fencing
National Mustang Association: Without Fencing

Impacted Features	Eccles Option
Stockwaters w/in 4 miles	8
Stockwaters w/in 1 mile	1
Fences (ea)	1
Roads (ea)	1
Trails (ea)	
Pipelines (ea)	
Other	

Table 5.6.4 Clover Creek Allotment Mitigation Project Comparison

Proposed Mitigation Units	Eccles Option	
	Without Fencing	With Fencing
Fence (mi)		1.6
Gates (ea)	2	4
Railroad Cattleguards (ea)	1	1
Road Cattleguards (ea)	1	3
Road Crossings (ea)	1	1
Trail Crossings (ea)		
Cattle Crossings (ea)	2	2
Sheep Crossings (ea)		
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Unspecified Stockwaters		
Troughs (ea)		
Wells (ea)		
Springs (ea)		
Other		

Note: *These construction units are maximum estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

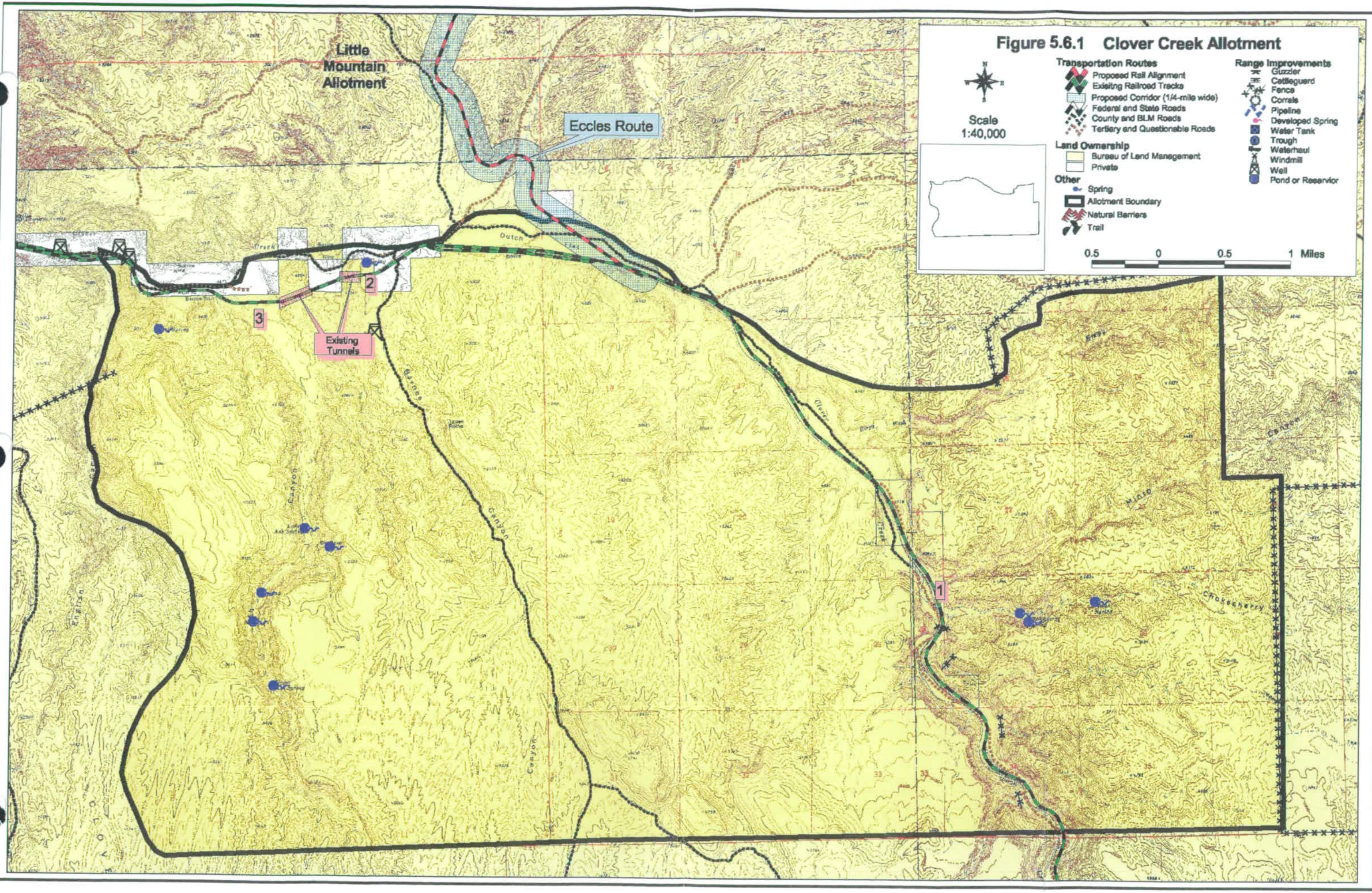
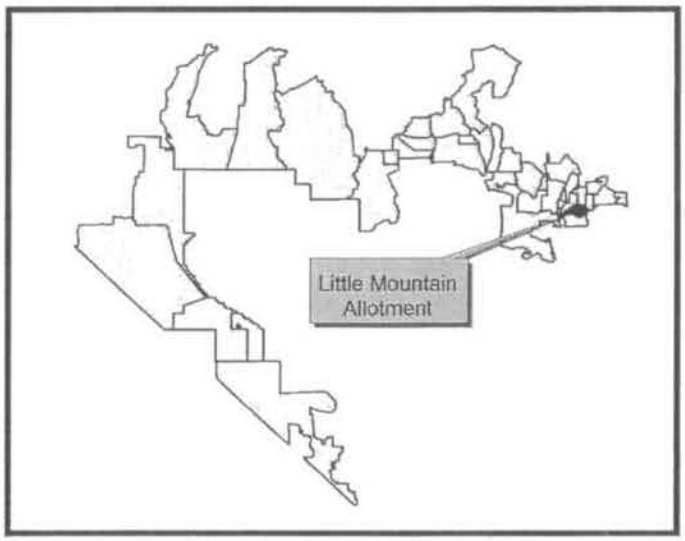


Figure 5.6.1 Clover Creek Allotment

5.7 LITTLE MOUNTAIN ALLOTMENT

Permittee: National Mustang Association
Contact: Richard Sewing
Address: Box 1367
Cedar City, UT 84720



5.7.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The southwest corner of the Little Mountain Allotment is three miles east of Caliente. The allotment is approximately nine miles east and west, and five miles north and south, with the west end narrowing to about 1.5 miles. The northeast portion of the allotment where it joins the Panaca Cattle Allotment is unfenced, as is the common boundary with the Peck Allotment at the northwest side. The southwest corner extends down to Clover Creek where it joins private land. The Union Pacific Railroad runs along the southwest portion of the allotment near Clover Creek. The allotment is not fenced into pastures. The National Mustang Association reserves all of the forage on the allotment for wild horse use. The allotment was initially used for sheep, and then changed to cattle. However, there was never any cattle use because of lack of water. The BLM reports that the type of use is going to be converted to cattle following completion of data collection and analysis. Part of the Miller Flat Wild Horse Herd Management Area (HMA) lies within the Little Mountain Allotment. See Tables 5.7.1 and 5.7.2, and Figure 5.7.1 for details of the allotment and railroad route.

Table 5.7.1 Little Mountain Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
18,386	234	66 cattle	5-01 / 10-31	399	Eccles	
Total – 18,620					3.47	87

Table 5.7.2 Little Mountain Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
400	0	400

STOCKWATERS

There are only a few seasonal water seeps in the allotment. The wild horses typically water along Clover Creek.

5.7.2 Fencing Preference

The Permittee prefers that the right-of-way not be fenced. A future permittee may determine that a fence is warranted. The BLM reports that the allotment may be transferred in the near future.

5.7.3 Proposed Railroad Alignment

The proposed track will join the existing UPRR track just east of Dutch Flat in the Clover Creek Allotment (Map Reference 1), and will enter the allotment on the north side of Dutch Flat (Map Reference 2). The track and service road will travel in a northerly direction for 3.5 miles and exit the allotment into the Peck Allotment (Map Reference 3).

5.7.4 Impacts and Mitigation Without Fencing

IMPACTS TO VEGETATION AND FORAGE

Inside the 87 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO LIVESTOCK MOVEMENT

In the future the allotment may be used for cattle. The proposed track and service road will divide the west side from the east side of the allotment.

MITIGATION

Provide cattle crossings consisting of earth ramps with approaches not to exceed 25 percent at least every mile between roads along the track, with locations to be determined after the centerline of the track has been staked. This mitigation will entail a total of two cattle crossings.

IMPACTS TO STOCKWATERS

There may be impacts to wild horse watering during construction of the track. Construction could keep horses from watering in Clover Creek in the Dutch Flat area, however the impact cannot be fully determined until the centerline of the track is staked.

MITIGATION

Ensure that construction work does not interfere with wild horse and other wildlife watering in Clover Creek. Educate construction workers on wild horses, and store equipment away from the creek at night. Alternate water sources may need to be installed prior to the beginning of construction.

IMPACTS TO ROADS AND TRAILS

The proposed railroad will cross one trail at Map Reference 4.

MITIGATION

Construct a trail crossing with approaches not to exceed twelve percent grade. This will also serve as a livestock crossing.

5.7.5 Impacts and Mitigation With Fencing

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The amount of forage loss cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

IMPACTS TO LIVESTOCK MOVEMENT

If the right-of-way is fenced it will divide the west side of the allotment from the rest of the allotment. This will prevent animals from moving across the allotment.

MITIGATION

Install four underpasses so that animals can move freely throughout the allotment. In this instance, cattle crossings can no longer serve the purpose of animal crossings. This mitigation will entail a total of four underpasses. Each underpass will require two road cattleguards on the service road.

IMPACTS TO STOCKWATERS

Fencing the right-of-way will divide the allotment and cut off access to the only water source at Clover Creek. The large east end of the allotment will be left dry.

MITIGATION

A well will have to be developed on the east end for water; or an underpass would have to be constructed to allow livestock access to Clover Creek. A well is included in Table 5.7.4.

IMPACTS TO ROADS AND TRAILS

The railroad will cross one trail at Map Reference 4, in effect cutting off access to the trail.

MITIGATION

Construct a trail crossing with approaches not to exceed twelve percent grade. Install a road cattleguard on the trail on each side of the right-of-way.

OTHER IMPACTS

If the right-of-way is fenced the entry point at Map Reference 1 and the exit point at Map Reference 3 will have open ends on the track and service road. These openings will allow animals to enter the right-of-way.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road in each opening.

Table 5.7.3 Little Mountain Allotment Impacted Features

Permittee Fencing Preference: Without Fence

Impacted Features	Eccles Option
Stockwaters w/in 4 miles	1
Stockwaters w/in 1 mile	1
Fences (ea)	
Roads (ea)	
Trails (ea)	1
Pipelines (ea)	
Other	

Table 5.7.4 Little Mountain Allotment Mitigation Project Comparison

Proposed Mitigation Units	Eccles Option	
	Without Fencing	With Fencing
Fence (mi)		7
Gates (ea)		6
Railroad Cattleguards (ea)		1
Road Cattleguards (ea)		2
Road Crossings (ea)		
Trail Crossings (ea)	1	1
Cattle Crossings (ea)	2	2
Sheep Crossings (ea)		
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Unspecified Stockwaters		
Troughs (ea)		
Wells (ea)		1
Springs (ea)		
Other		

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

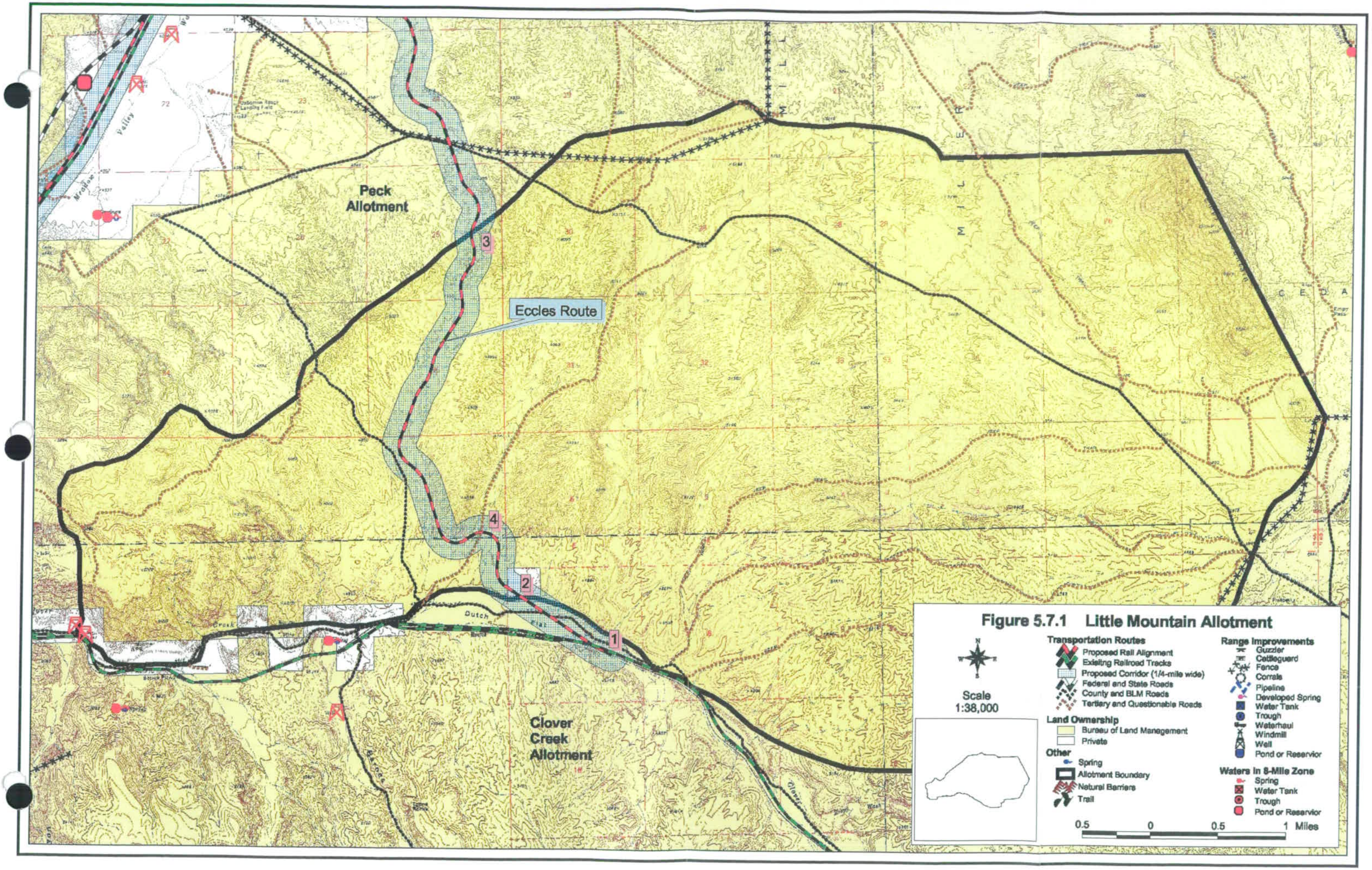
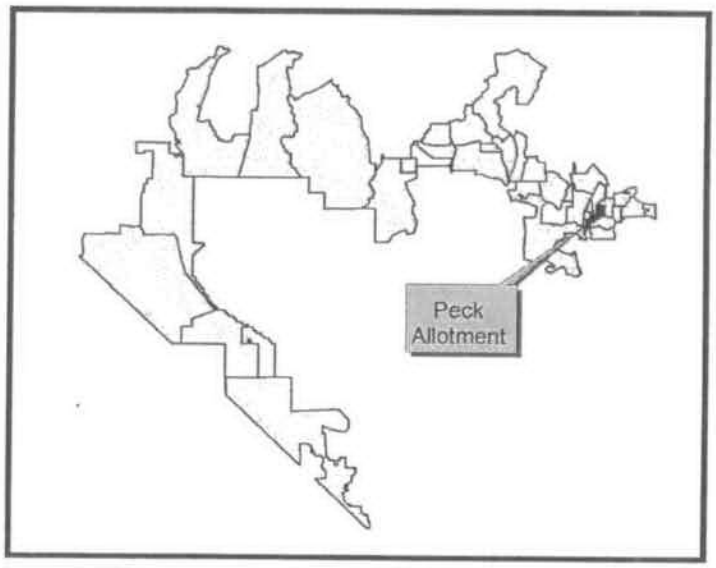


Figure 5.7.1 Little Mountain Allotment

5.8 PECK ALLOTMENT

Permittee: 7J Ranch
Contact: Henry Brackenbury
Address: Box 75
Caliente, NV 89008

The information for this analysis of the Peck Allotment was obtained from BLM-derived maps and allotment files. The Permittee is placing the ranch for sale and is not concerned about impacts. Once the property is placed on the market the realtor will be the contact.



5.8.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The southwest corner of the Peck Allotment is just north of Caliente. The allotment varies from two to three miles wide east and west, and is approximately nine miles long north and south. Nearly all of the west and south sides of the allotment join private property. Meadow Valley is on the west and Clover Creek is on the south. See Tables 5.8.1 and 5.8.2, and Figure 5.8.1 for details of the allotment and railroad route.

Table 5.8.1 Peck Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
13,291	1,292	34 cattle	3-01 / 2-28	408	Eccles Option	
					5.3	133
Total – 14,583					Caliente Option*	
					2.13	53
					Mitigatory Route (Eccles)**	
					5.64	141

*Because the Caliente Option would not cross grazing rangeland in the allotment, there are no impacts to the grazing operation, and the route is not discussed in this analysis.

**Mitigatory Route was derived by moving 3.25 miles of the Eccles Option so that the west side of the right-of-way would be the boundary of the public land and the private land in the allotment. Impacts and mitigation for this option are the same as those for the Eccles Option.

Table 5.8.2 Peck Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
397	346	743

GRAZING SYSTEM

The grazing permit is for continuous year-long grazing.

PASTURE DESIGN

The allotment is divided into two pastures, labeled the North Pasture and the South Pasture on Figure 5.8.1. The South Pasture is not fenced on the boundary with the Little Mountain Allotment. Existing fencing locations on the west side between the public land and the private land in Meadow Valley is not shown on the figure. BLM-derived figures do not indicate precisely where there is fencing on the private-public land boundary.

STOCKWATERS

No stockwater sources were detailed on BLM-derived figures.

5.8.2 Fencing Preference

The Permittee has not expressed a fencing preference for the right-of-way.

5.8.3 Proposed Railroad Alignment

There are two track route alternatives near or within the Peck Allotment. The Caliente Option would travel up Meadow Valley to the west and would be constructed on an existing unused railroad grade on private land (Map Reference 6). Because the Caliente Option would not cross grazing rangeland in the allotment, there are no impacts to the grazing operation, and the route is not discussed in this analysis.

The Eccles Option would cross the middle of the allotment traveling north/south for 5.3 miles. With a 200-foot right-of-way the railroad would occupy approximately 133 acres within the allotment. It appears that the railroad would form a barrier between the private land and the allotment boundary. Cattle will not be able to travel between the public land and the private land unless access crossings are constructed.

There is the potential to consider moving 3.25 miles of the Eccles Option so that the west side of the right-of-way would be on the boundary of the public land and the private land in the allotment, in Meadow Valley. This option would prevent a narrow strip of the allotment from being segregated from the rest of the allotment by the current proposed alignment of the railroad. This option is detailed as a mitigatory route on Figure 5.8.1. Impacts and mitigation will be the same as detailed for the Eccles Route.

5.8.4 Impacts and Mitigation Without Fencing

IMPACTS TO VEGETATION AND FORAGE

Inside the 133 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The railroad will cross the pasture fence that divides the South Pasture and the North Pasture (Map Reference 3), and it will cross another fence as it exits the allotment (Map Reference 2). The opening in the pasture fence at Map Reference 3 will allow cattle to move between pastures at will. The opening at Map Reference 2 will allow cattle to drift into and out of the allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each fence opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

The proposed track and service road would impede movement of cattle from one side of the right-of-way to the other.

MITIGATION

Construct six cattle crossings consisting of earth ramps with approaches not to exceed 25 percent grade, placed approximately one mile apart. The locations will be determined after the track is staked.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross one trail at Map Reference 4 and one road at Map Reference 5, disrupting the flow of traffic.

MITIGATION

Construct a trail crossing at Map Reference 4 with approaches not to exceed twelve percent grade, and a road crossing on the road at Map Reference 5 with approaches not to exceed six percent grade. These crossings can also serve a dual purpose as cattle crossings.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is a risk of cattle getting on the track and being hit by a train.

MITIGATION

Fencing the right-of-way would mitigate the risk of animal-train collisions to a degree.

5.8.5 Impacts and Mitigation With Fencing

Fencing the right-of-way will require 10.6 miles of fencing.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The amount of forage loss cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

Fencing the right-of-way will leave open ends at Map References 1 and 2. The pasture fence crossing at Map Reference 3 would meet the right-of-way at right angles but would dead-end on the right-of-way and leave no opening.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at Map References 1 and 2, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO PASTURE DESIGN

Fencing the right-of-way would separate out approximately 320 acres of the North Pasture (Map Reference 7), creating a very small pasture. It would also separate off approximately 200 acres of the northeast corner of the South Pasture (Map Reference 8), making this small area a part of the Little Mountain Allotment.

MITIGATION

Suggested mitigation is to remove the fence between the southwest corner of the North Pasture so that the 320 acres cut out by the right-of-way would become part of the South Pasture (Map Reference 7). Build a new fence along the boundary with the private land in Meadow Valley. This mitigation will entail removing a total of 1.5 miles of fence and installing .75 miles of new fence.

There is no mitigation suggested for the area fenced in common with the Little Mountain Allotment (Map Reference 8).

IMPACTS TO LIVESTOCK MOVEMENT

Fencing the right-of-way would create a definite barrier to cattle movement from one side of the allotment to the other across the right-of-way.

MITIGATION

Construct appropriate cattle crossings for each mile of the right-of-way. Crossings would consist of either earth ramps with approaches not to exceed 25 percent grade, with sixteen-foot heavy steel gates hinged on ten-inch well casings that the Permittee will be able to lock; or crossings can be underpasses with road cattleguards on the service road so cattle can cross the service road and pass under the track. Each underpass would require two road cattleguards. This mitigation will entail a total of six cattle crossings and twelve gates; or six underpasses and twelve road cattleguards.

Mitigation could entail a combination of cattle crossings and underpasses. The type and location of crossings will be decided once the right-of-way is staked.

IMPACTS TO ROADS AND TRAILS

The railroad will cross a trail at Map Reference 4 and a road at Map Reference 5, in effect stopping traffic movement.

MITIGATION

Construct a trail crossing at Map Reference 4 with approaches not to exceed six percent grade, and a road crossing at Map Reference 5 with approaches not to exceed twelve percent grade. These crossings cannot be used as cattle crossings if the right-of-way is fenced. This mitigation will require installing two road cattleguards at each crossing, for a total of one road crossing, one trail crossing, and four road cattleguards. These can double as cattle crossings, with the installation of gates in the fence on either side of the right-of-way.

Table 5.8.3 Peck Allotment Impacted Features

Permittee Fencing Preference: None Expressed

Impacted Features	Eccles Option
Stockwaters w/in 4 miles	
Stockwaters w/in 1 mile	
Fences (ea)	2
Roads (ea)	1
Trails (ea)	1
Pipelines (ea)	
Other	

Table 5.8.4 Peck Allotment Mitigation Project Comparison

Proposed Mitigation Units	Eccles Option	
	Without Fencing	With Fencing
Fence (mi)		11.4
Gates (ea)		14
Railroad Cattleguards (ea)	2	2
Road Cattleguards (ea)	2	6
Road Crossings (ea)	1	1
Trail Crossings (ea)	1	1
Cattle Crossings (ea)	6	6
Sheep Crossings (ea)		
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Fence Removal (mi)		1.5
Unspecified Stockwaters		
Troughs (ea)		
Wells (ea)		
Springs (ea)		
Other		

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

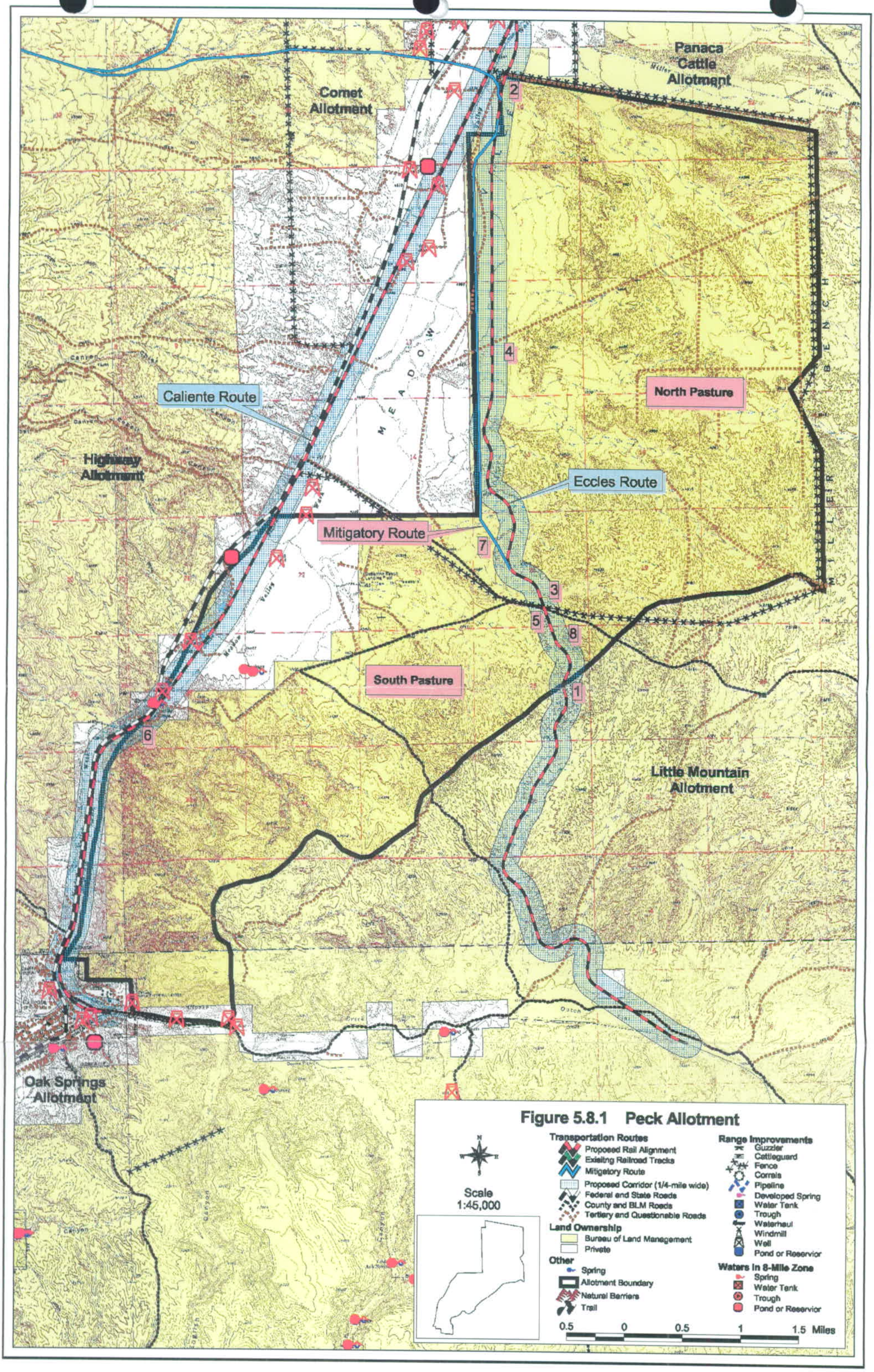
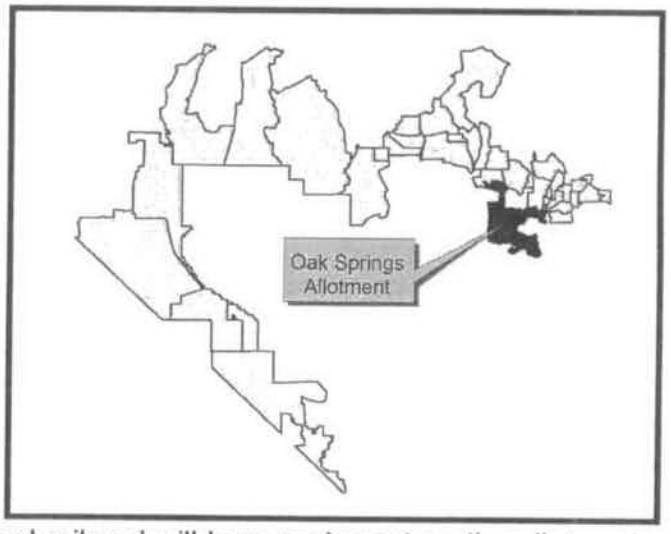


Figure 5.8.1 Peck Allotment

5.9 OAK SPRINGS ALLOTMENT

Permittee: Delamar Valley Cattle
Contact: Merlin Flake
Address: HC33, Box 33990
Ely, NV 89301



5.9.1 Existing Situation

Base Property: Water

The Caliente Option of the proposed railroad will pass through the northernmost extremity of the Oak Springs Allotment, which surrounds the town of Caliente. The railroad will pass primarily through private land, although there are about 40 acres of public land in that portion of the allotment. There is no grazing in that portion of the allotment, and the proposed railroad will have no impact on the allotment grazing operation. See Tables 5.9.1 and 5.9.2, and Figure 5.9.1 for details of the allotment.

Table 5.9.1 Oak Springs Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
193,679	4,031	773 cattle	3/01 – 2/28	9,276	Caliente	
Total = 197,933					3.04	76

Table 5.9.2 Oak Springs Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
9,268	5,729	14,997

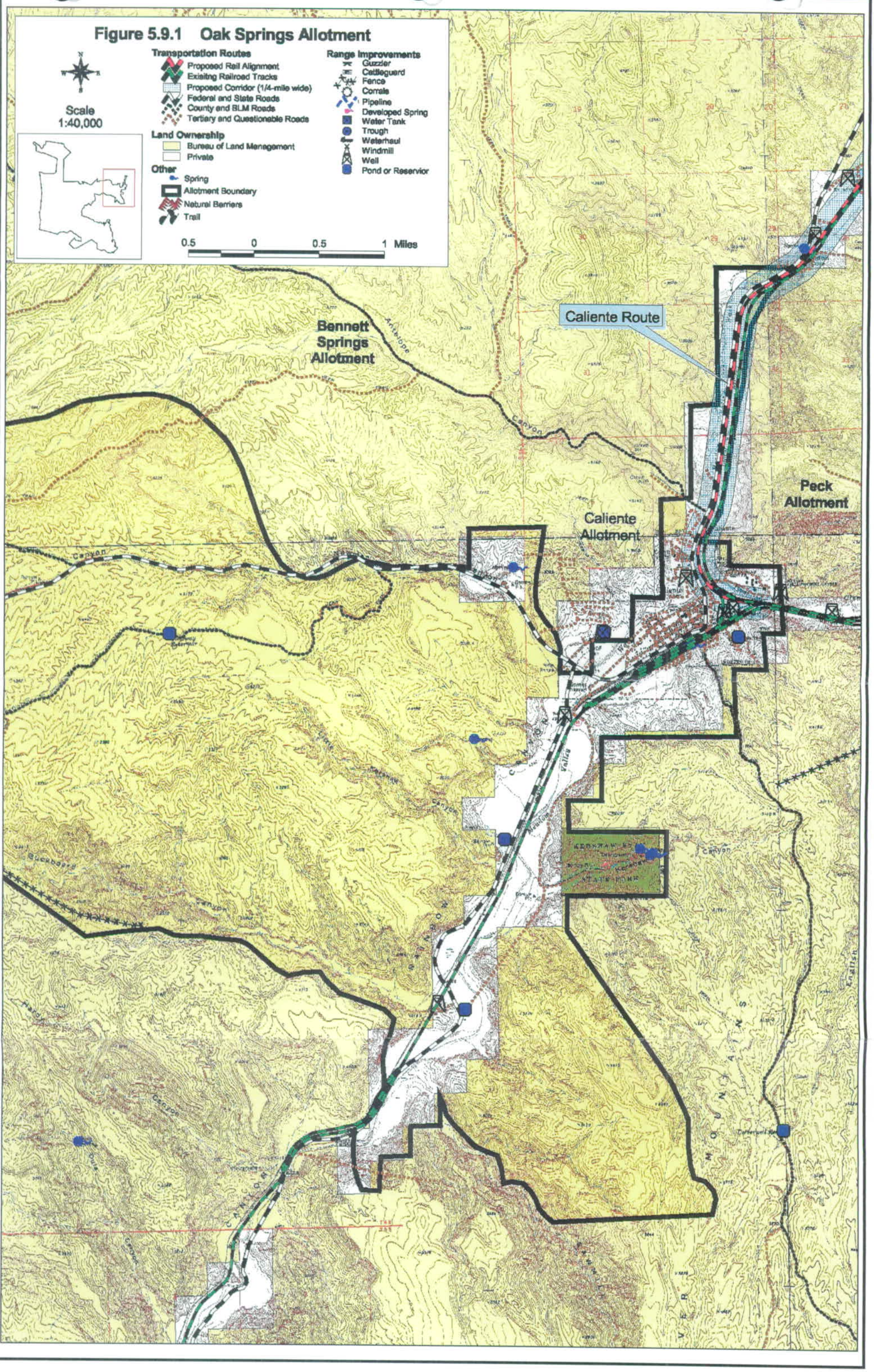
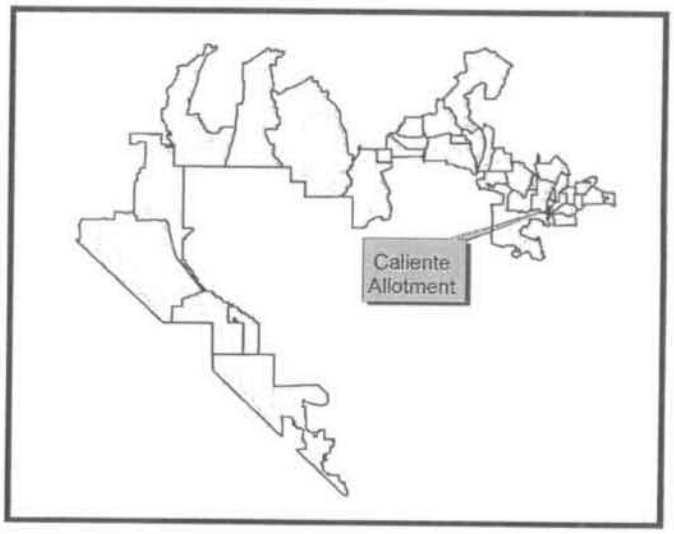


Figure 5.9.1 Oak Springs Allotment
Scale
1:40,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
0.5 0 0.5 1 Miles
Bennett Springs Allotment
Caliente Route
Caliente Allotment
Peck Allotment

5.10 CALIENTE ALLOTMENT

Permittee: Charles Culverwell Estate
Contact: Chuck Culverwell
Address: Box 231
Caliente, NV 89008



5.10.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Caliente Allotment is located northwest of and adjacent to the City of Caliente city limits. See Tables 5.10.1 and 5.10.2, and Figure 5.10.1 for details of the allotment.

Table 5.10.1 Caliente Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
1,584	273	4 cattle	3-01 / 2-28	48	Antelope Mitigatory Route	
Total – 1,858					1.4	35

Table 5.10.2 Caliente Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
40	0	48

5.10.2 Proposed Railroad Alignment

The existing Union Pacific Railroad track through Caliente is currently fenced. The proposed track and service road would join the existing UPRR track in Caliente. The track would then run north from Caliente. The track will be aligned on the east side of US Highway 93 on private property. Highway 93 is fenced, and the proposed track and service road will not pass through the allotment.

The Permittee is of the opinion that the proposed track and service road will not have an impact on the Caliente Allotment. The existing track is east of the allotment, and does not cross the allotment at any point. The Antelope Route is a mitigatory route proposed by the Bennett Spring Allotment Permittee and addressed below.

5.10.3 Impacts and Mitigation - Antelope Mitigatory Route

This mitigatory route is proposed for the Bennett Springs Allotment, but would cross the Caliente Allotment as well, resulting in some impacts to the grazing operation. The Antelope Route would originate at the existing UPRR railroad in Caliente, travel north along the old railroad grade for approximately one mile, then trend west up Antelope Canyon.

IMPACTS TO EXISTING FENCE

The track and service road may cross a fence at the boundary of private land on the allotment, leaving an opening for cattle to drift out of the allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road.

IMPACTS TO ROADS

The railroad would run close to the existing Old Highway 93. Actual impacts cannot be determined until the railroad is staked.

MITIGATION

It will be necessary for the DOE, BLM, and the County Roads Department to analyze this route and determine its feasibility. It may be possible for the existing road to be used as the railroad service road.

Table 5.10.3 Caliente Allotment Impacted Features

Permittee Fencing Preference: No Preference

Impacted Features	Antelope Route
Stockwaters w/in 4 miles	
Stockwaters w/in 1 mile	
Fences (ea)	1
Roads (ea)	
Trails (ea)	
Pipelines (ea)	
Other:	

Table 5.10.4 Caliente Allotment Mitigation Project Comparison

Proposed Mitigation Units	Antelope Route	
	Without Fencing	With Fencing
Fence (mi)		2.8
Gates (ea)		2
Railroad Cattleguards (ea)	1	2
Road Cattleguards (ea)	1	1
Road Crossings (ea)		
Trail Crossings (ea)		
Cattle Crossings (ea)		
Sheep Crossings (ea)		
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Unspecified Stockwaters		
Troughs (ea)		
Wells (ea)		
Springs (ea)		
Other		

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

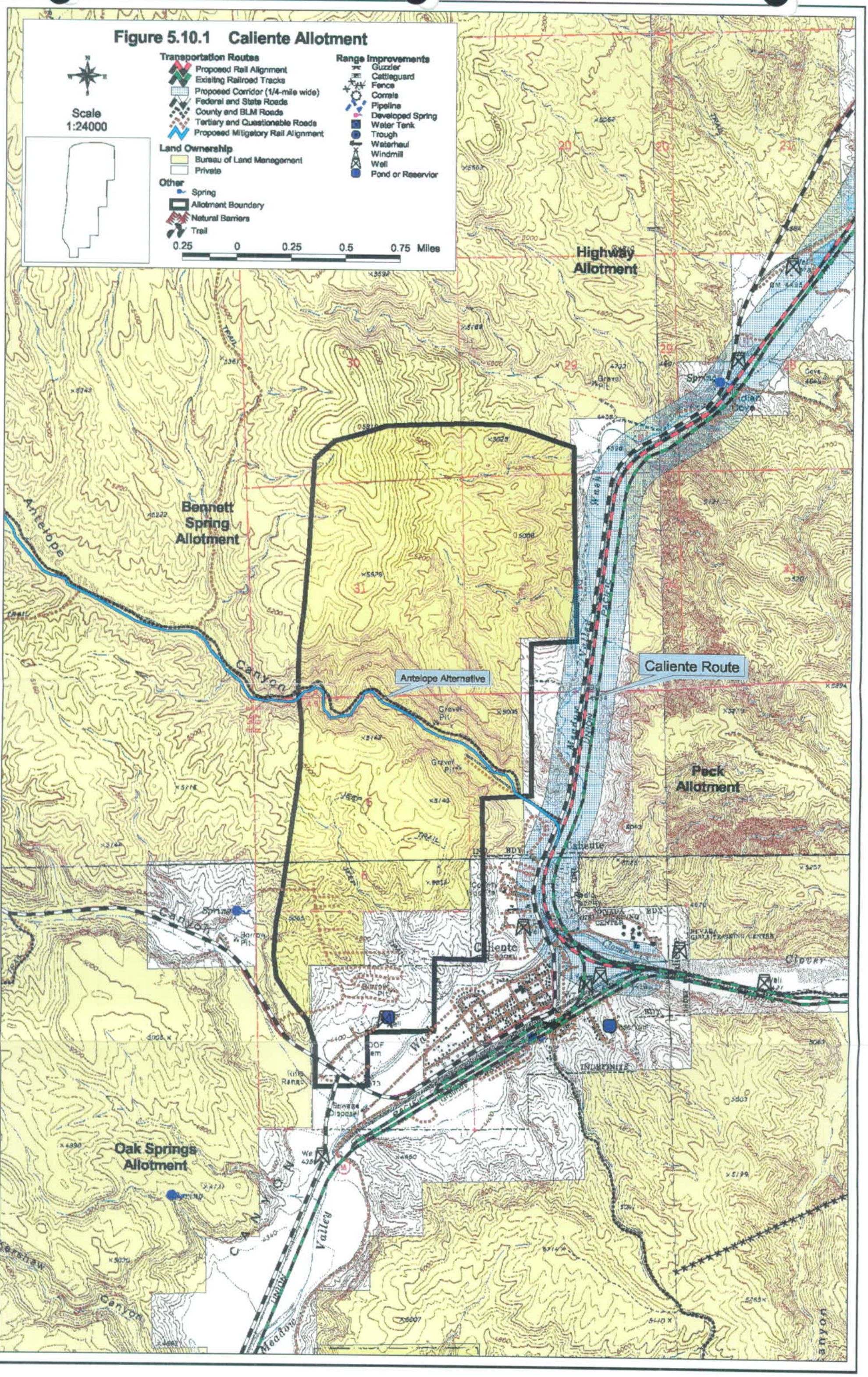
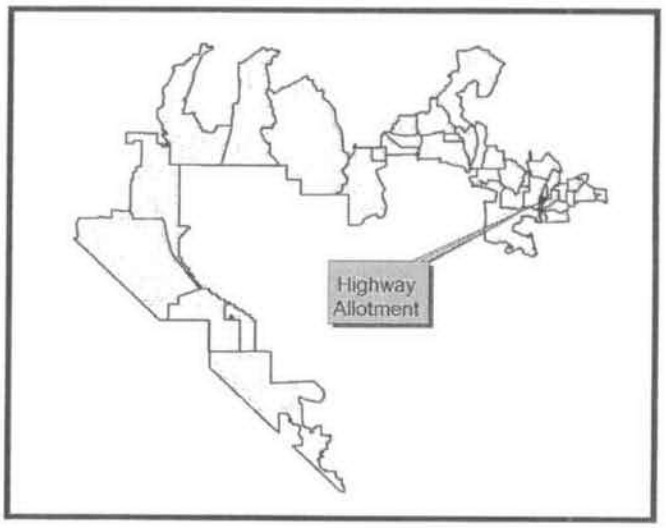


Figure 5.10.1 Caliente Allotment
Scale 1:24000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Proposed Mitigatory Rail Alignment
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
0.25 0 0.25 0.5 0.75 Miles
Highway Allotment
Bennett Spring Allotment
Antelope Canyon
Antelope Alternative
Caliente Route
Peck Allotment
Caliente
Oak Springs Allotment
Meadow Valley Wash
Union Pacific
Kersiaw Canyon

5.11 HIGHWAY ALLOTMENT

Permittee: 7J Ranch
Contact: Henry Brackenbury
Address: Box 75
Caliente, NV 89008



5.11.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Highway Allotment is located three miles north of Caliente, Nevada. It is situated on the west side of US Highway 93. There is an abandoned railroad track located on the east side of US 93, on which the proposed new track is to be constructed. The track is located on private land in Meadow Valley. The allotment is approximately three miles long north and south, and approximately 2.5 miles wide east and west. The proposed track and service road is to be constructed on the abandoned railroad track east of US Highway 93. It will not run through the allotment, and therefore will not have any impact on activities within the allotment. See Tables 5.11.1 and 5.11.2, and Figure 5.11.1 for details of the allotment boundary

Table 5.11.1 Highway Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
3,884	367	10 cattle	3-01 / 2-28	120	None	
Total – 4,251						

Table 5.11.2 Highway Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
118	20	138

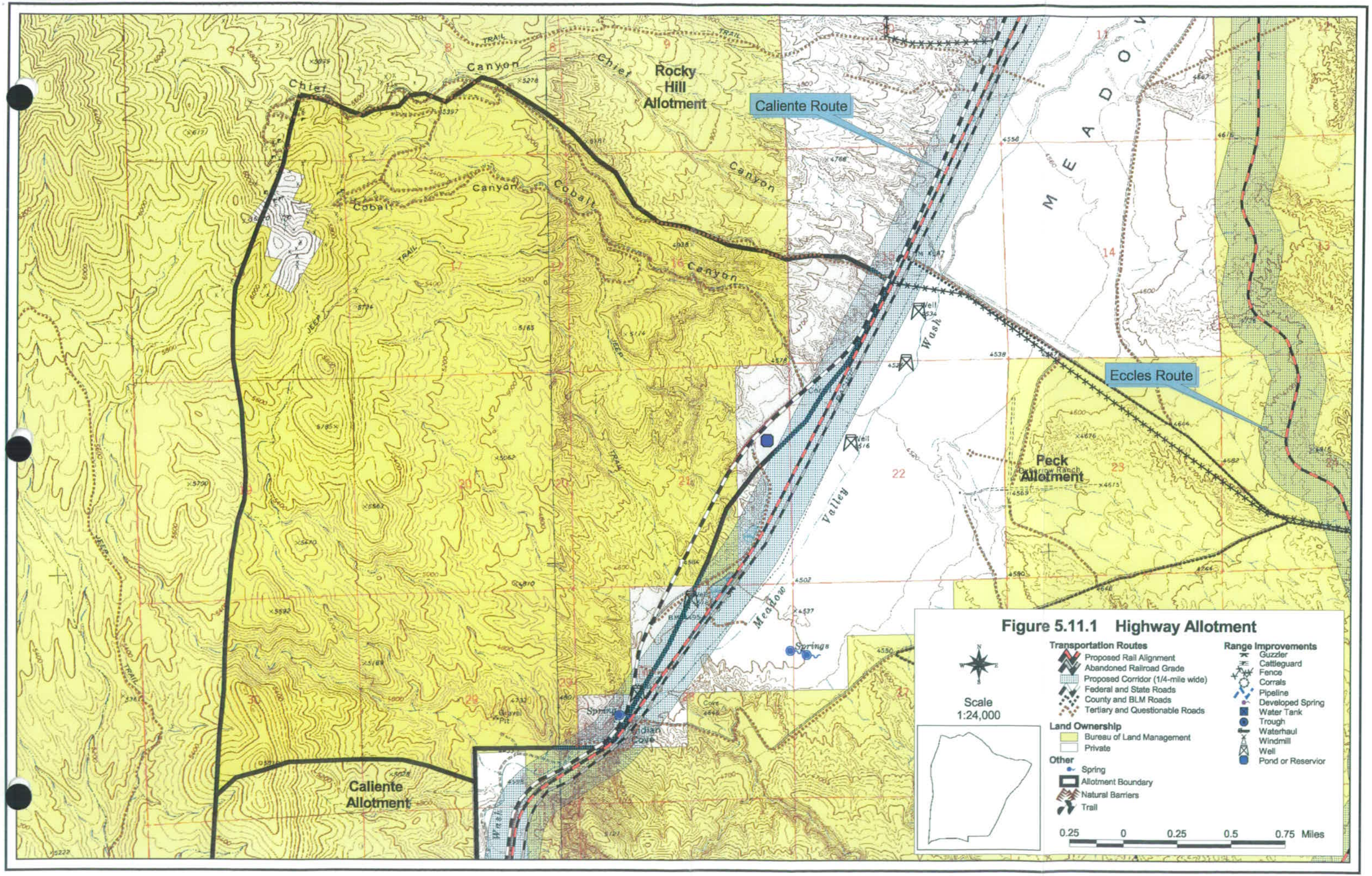


Figure 5.11.1 Highway Allotment

5.12 ROCKY HILL ALLOTMENT

The Rocky Hill Allotment is non-permitted.

5.12.1 Existing Situation

ALLOTMENT DESCRIPTION

The northwest corner of the Rocky Hill Allotment is located approximately six miles north of Caliente on the west side of State Route 318. The allotment is about 5.5 miles long north and south. The south end is about 2.5 miles wide and the north end tapers to a point. The allotment is unfenced on the west side, at the common boundary with the Bennett Springs Allotment. See Table 5.12.1 and Figure 5.12.1 for details of the allotment.

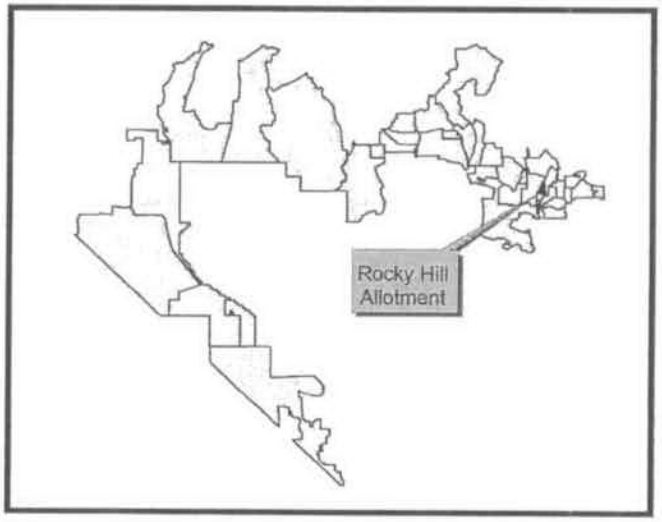


Table 5.12.1 Rocky Hill Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
4,243	1,031	N/A			Common Segment	
					.12	3
Total = 5,274					Mitigatory A	
					2	44
					Mitigatory B	
					3	65

5.12.2 Proposed Railroad Alignment

The Common Segment of the proposed railroad passes through .12 miles of the very northern tip of the allotment. There are no impacts noted from this section of the railroad.

There are two Mitigatory Routes proposed for other allotments that will pass through the Rocky Hill Allotment as well, both detailed on Figure 5.12.1.

- Mitigatory Route A passes through the allotment from the Comet Allotment to the Bennett Springs Allotment, from the Eccles Option east of the Comet Allotment eastern boundary.
- Mitigatory Route B leaves the Common Segment Route from the Bennett Springs Allotment and crosses the Rocky Hill Allotment.

Both of these proposed mitigation routes are outlined very generally. If selected, the actual alignment will need to be determined dependent upon topography.

5.12.3 Impacts and Mitigation Without Fencing

IMPACTS TO EXISTING FENCING

The track and service road will cross a fence at the entry into the allotment, allowing cattle from the Comet Allotment to enter the Rocky Hill Allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at the entry point.

Table 5.12.2 Rocky Hill Allotment Impacted Features

Impacted Features	Mitigatory A	Mitigatory B
Stockwaters w/in 4 miles		
Stockwaters w/in 1 mile		
Fences (ea)	1	1
Roads (ea)		
Trails (ea)		
Pipelines (ea)		
Other:		

Table 5.12.3 Rocky Hill Allotment Mitigation Project Comparison

Proposed Mitigation Units	Mitigatory A		Mitigatory B	
	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)				
Gates (ea)				
Railroad Cattleguards (ea)	1		1	
Road Cattleguards (ea)	1		1	
Road Crossings (ea)				
Trail Crossings (ea)				
Cattle Crossings (ea)				
Sheep Crossings (ea)				
Pipeline Construction (mi)				
Pipeline Crossings (ea)				
Unspecified Stockwaters				
Troughs (ea)				
Wells (ea)				
Springs (ea)				
Other				

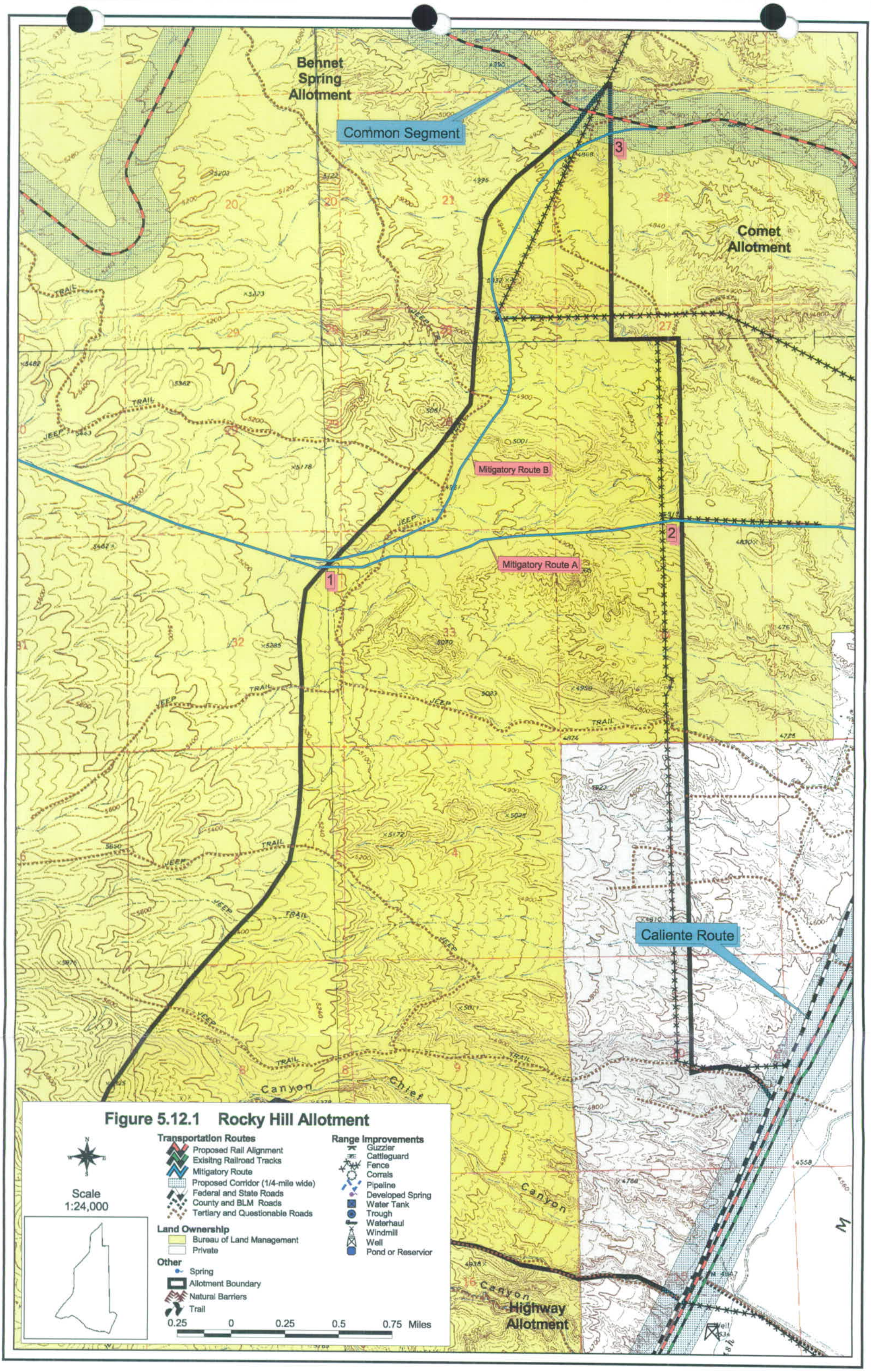
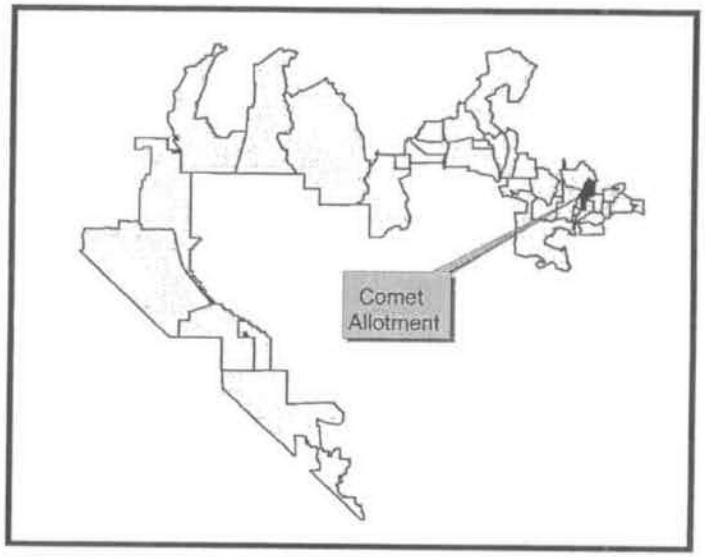


Figure 5.12.1 Rocky Hill Allotment

5.13 COMET ALLOTMENT

Permittee: Lom Thompson
Address: 8260 Lone Pine Rd.
Las Vegas, NV 89129

Contact: Raymond Thompson
Address: 1001 Ranch
Caliente, NV 89008



5.13.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Comet Allotment is approximately eight miles long north and south, and varies in width from .5 to three miles wide east and west. The south side of the allotment is approximately eight miles north of Caliente. The allotment is located west of US Highway 93. The east side of the allotment follows private property lines along Meadow Valley. The allotment surrounds the Cathedral Gorge State Park on the north end. The Park and US Highway 93 separate a portion of the north end of the allotment into a separate pasture. See Tables 5.13.1 and 5.13.2, and Figure 5.13.1 for details of the allotment and the railroad route.

Grazing use resumed on the allotment in 2005 after being in non-use since 1982. There is an unfenced alfalfa field that belongs to another party (Map Reference 1), and the Permittee did not want his cattle bloating from eating the alfalfa. There was also a missing cattleguard on the Airport Road near Cathedral Gorge State Park where cattle could drift out of the allotment. The cattleguard was replaced in 2003.

Table 5.13.1 Comet Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
10,553	10,622*	18 cattle	3-01 / 2-28	216	Crestline Option	
					4.93	123
Total – 21,175					Eccles Option	
					3.03	76
					Caliente Option	
					7.21	180
					Common Segment	
					2.4	60
					Mitigatory A	
					2	50
					Mitigatory B	
					.25	6

*A considerable amount of the private acreage is fenced land belonging to the several ranches in the area.

Table 5.13.2 Comet Allotment Permitted Use AUMs

Active	Suspended	Total
214	40	254

Grazing System

The allotment is set up for a pasture rotation system.

Pasture Design

The allotment is divided into one large and three small pastures. See Pasture Designations 1 - 4 on the map.

Stockwaters

When cattle are on the allotment they water primarily on private land. There is a well on Airport Road that may be on BLM land at Map Reference 2. The map shows a pond on BLM land at Map Reference 3. If cattle were to use the allotment, they would water on the bottomlands in the lower elevations, and work their way up to higher elevations as they graze.

5.13.2 Fencing Preference

The current Permittee does not want fencing at this time; however the ranch is listed for sale and a new owner may have a different preference.

5.13.3 Proposed Railroad Alignment

There are segments of three proposed railroad routes through the private land within the allotment; Caliente, Crestline, and Eccles, all of which combine into the Common Segment on public land within the allotment. Miles and acreages through the allotment are detailed in Table 5.13.1. All segments are proposed to enter the allotment from private land to the east, and then extend west across the allotment, exiting into the Bennett Springs Allotment.

5.13.4 Impacts and Mitigation Without Fencing – Common Segment

Impacts to Vegetation and Forage

Inside the 60 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

Mitigation

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

Impacts to Existing Fencing

The proposed track and service road will pass through a fence upon entering and exiting the allotment (Map References 4 & 5).

MITIGATION

Construct a railroad cattleguard and a road cattleguard on the service road at the fences where the railroad will enter and exit the allotment. The best place for these railroad cattleguards at Map Reference 4 would be on private land so that the water source would not be cut off from use by cattle.

IMPACTS TO PASTURE DESIGN

The Common Segment Route will divide Pasture 1 into two pastures, one large pasture north of the right-of-way, and a very small pasture south of the right-of-way. The small pasture will be difficult to manage.

MITIGATION

The Permittee has indicated that he plans to reconfigure fencing to better balance the pastures after construction of the track and service road.

IMPACTS TO LIVESTOCK MOVEMENT

Impacts cannot be specifically determined until the centerline of the track is staked. Because the track extends from the low areas of the allotment to the higher areas, it may not impede movement of cattle from the lowlands to grazing upslope. However, it may impede movement of cattle to and from the south end of Pasture 1. Even without fencing the track will present somewhat of a barrier to cattle, especially where there is cut and fill for the railroad pad. Cattle will tend to concentrate on the alfalfa field at Map Reference 1 because they will not be free to graze to the south of the track.

MITIGATION

Construct three cattle crossings, either underpasses or earthen ramps with approaches not to exceed 25 percent grade. The Permittee prefers underpasses so that cattle will be able to pass under the track instead of walking over it, as with construction of cattle crossings with gates. Moving cattle through gates is difficult for one person to handle.

Fencing the alfalfa field (Map Reference 1) is also mitigation for impacts to livestock movement. Fencing the field will require 6.25 miles of fence.

IMPACTS TO STOCKWATER

The proposed track and service road pass near a pond on private land (Map Reference 7). The pond at Map Reference 3 will be cut off as a water source for livestock use at the south end of Pasture 1.

MITIGATION

Construct an unspecified stockwater development north of the track, and one south of the track. The type of water development and the exact locations will be determined after the right-of-way is staked. One option is equipped wells with troughs.
Impacts to Roads and Trails

The proposed track crosses one trail in the allotment (Map Reference 6).

MITIGATION

Construct a trail crossing with approaches not to exceed a twelve percent grade.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is some risk of livestock death on the track and service road if the right-of-way is not fenced.

MITIGATION

Fence the right-of-way to reduce the chance of cattle being hit by a train. At present the Permittee does not consider this a sufficient risk to warrant fencing along the track and service road. However, if underpasses are constructed along with the track construction, the right-of-way fencing can be added later.

5.13.5 Impacts and Mitigation With Fencing – Common Segment

The impacts of the proposed track and service road are the same with fencing as without fencing, with the following exceptions.

Five miles of fencing will be required to fence the right-of-way.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The amount of forage loss cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

IMPACTS TO PASTURE DESIGN

Once the track is constructed it will create a clear division of Pasture 1 into one small pasture south of the track and one much larger pasture north of the track.

IMPACTS TO STOCKWATERS

In addition to the discussion of stockwater impacts under the *Without Fencing* alternative, there will be another impact. If the alfalfa field at Map Reference 1 and the right-of-way are fenced there will be an area located west of the alfalfa field and north of the right-of-way of about 1,000 acres that, for all practical purposes, will be segregated from water.

MITIGATION

Drill a well and equip with a water trough at Map Reference 8. This will also help offset the loss of forage from construction activities.

MITIGATION

If free passage of animals is desired, then any crossings constructed must be in the form of underpasses. If control of cattle movement is desired then opposing gates must be set across the track at each crossing, for a total of six gates. The gates should be sixteen-foot heavy steel hinged on ten-inch well casings set in concrete. The Permittee has noted that he plans to reconfigure the pastures after the track is constructed.

IMPACTS TO AESTHETIC VALUE

The proposed track will pass within .75 mile of the ranch headquarters, and will be visible and audible. There is no mitigation for this impact.

5.13.6 Impacts and Mitigation Without Fencing – Mitigatory Route A

Two Mitigatory Routes have been proposed to pass through the Bennett Springs Allotment, and will impact the Comet Allotment as well. Mitigatory Route A as detailed on Figure 5.13.1 is proposed to leave the Eccles Option and pass through the Comet Allotment to the Rocky Hill

Allotment (Map Reference 8). The route would cross two miles of the Comet Allotment. The right-of-way would occupy fifty acres of land.

Mitigatory Route B would leave the Common Segment and pass through only .25 miles of the Comet Allotment before entering the Rocky Hill Allotment. The routes shown on the figure are examples only. If selected, the actual route would need to be adjusted to follow topography.

Any impacts/mitigation from Mitigatory Route B are the same as those for the Common Segment, and are addressed in the pertinent sections.

IMPACTS TO VEGETATION AND FORAGE

Inside the 50 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The proposed mitigatory route and service road will cross one fence on entry into the Comet Allotment (Map Reference 7), and one fence as it exits the allotment (Map Reference 8), leaving openings where cattle can drift out of the allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road in both fence openings.

IMPACTS TO PASTURE DESIGN

The route is proposed to be aligned with an existing fence, and will not impact pasture design if aligned as proposed.

MITIGATION

The Permittee plans to reconfigure the pasture design after the track and service road are constructed.

IMPACTS TO LIVESTOCK MOVEMENT

The proposed track and service road will present a barrier to livestock movement across the allotment.

MITIGATION

Construct two underpasses and one cattle crossing so cattle can pass over the service road and under the track.

IMPACTS TO STOCKWATER

There are no stockwater developments in Pasture 2 or Pasture 3 in the allotment.

MITIGATION

Develop one unspecified water source in each pasture, possibly a well equipped with troughs. This will also help to offset forage loss from construction activities.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is some risk of cattle being hit by a train.

MITIGATION

Fence the right-of-way. The Permittee prefers no fencing, however this may change. Mitigation with fencing consists of constructing two underpasses so that if the fencing option is selected, access from one side of the track to the other will already be in place.

5.13.7 Impacts and Mitigation With Fencing – Mitigatory Route A

Impacts and mitigation are the same as those addressed under the *Without Fencing* alternative, with the following exceptions. Fencing the right-of-way will require four miles of fence.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The amount of forage within the right-of-way cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

Fencing the right-of-way will leave openings at the entry and exit points, allowing cattle from private land to get into the right-of-way, and into the Rocky Hill Allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard in each opening.

Table 5.13.3 Comet Allotment Impacted Features

Permittee Fencing Preference: Without Fence

Impacted Features	Common Segment	Mitigatory Route A	Mitigatory Route B
Stockwaters w/in 4 miles	2		
Stockwaters w/in 1 mile	2		
Fences (ea)	2	2	
Roads (ea)			
Trails (ea)	1		
Pipelines (ea)			
Other			

Table 5.13.4 Comet Allotment Mitigation Project Comparison

Proposed Mitigation Units	Common Segment		Mitigatory Route A		Mitigatory Route B	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)	6.25	11.05		4		.5
Gates (ea)		6		4		
Railroad Cattleguards (ea)	2	2	2	2	1	1
Road Cattleguards (ea)	2	8	2	2	1	1
Road Crossings (ea)						
Trail Crossings (ea)	1	1				
Cattle Crossings (ea)	3	3	2	2		
Sheep Crossings (ea)						
Pipeline Construction (mi)						
Pipeline Crossings (ea)						
Unspecified Stockwaters	2	2	2	2	2	2
Troughs (ea)	1	1	1	1	1	1
Wells (ea)	1	1	1	1	1	1
Springs (ea)						
Other						

Note: *These are estimates only. The actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

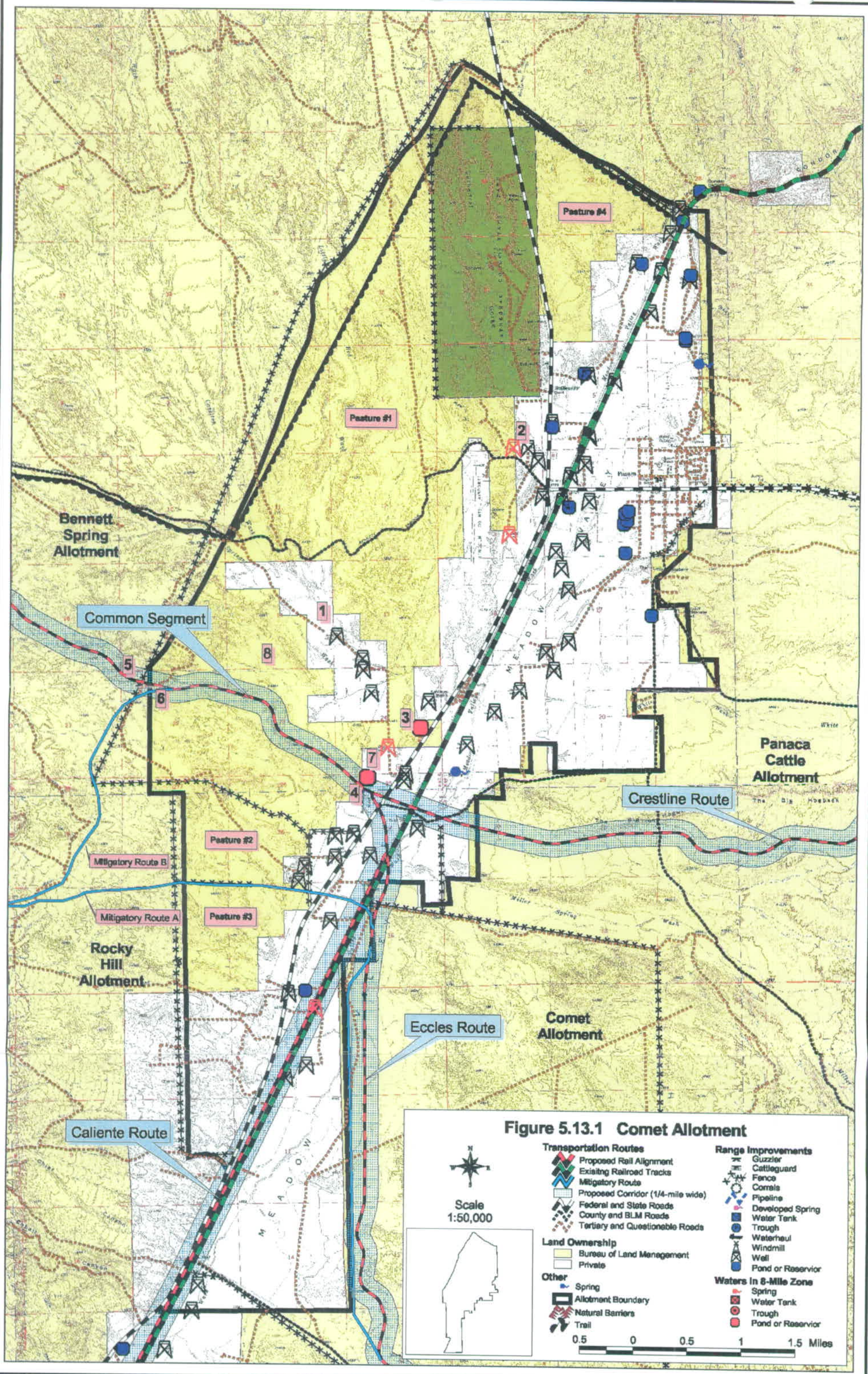
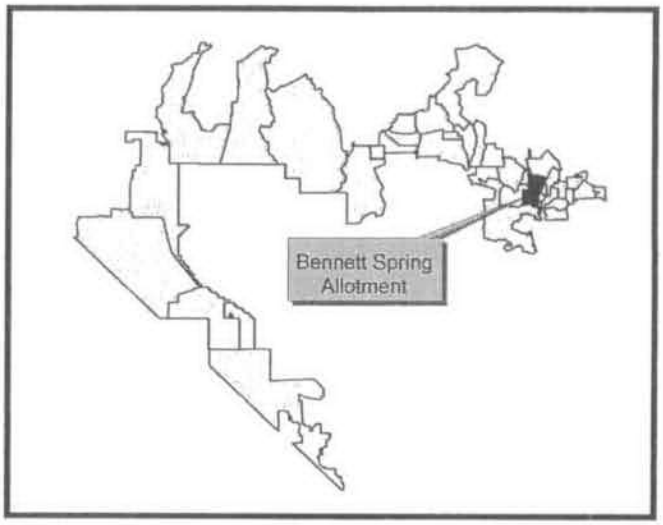


Figure 5.13.1 Comet Allotment

5.14 BENNETT SPRING ALLOTMENT

Permittee: Brad Guymon
Contact: Brad Guymon
Address: 396 North 500 West
Cedar City, UT 84720

Permittee: Thomas and Warren Williams
Contact: Thomas Williams
Address: 250 South 100 West
Cedar City, UT 84720



5.14.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The northwest corner of the allotment is located about three miles west and slightly south of Panaca. The Chief Range runs north/south through the middle of the Bennett Spring Allotment. The southeast corner of the allotment reaches to US Highway 93 just west of Caliente. The allotment is approximately eleven miles long north and south, and varies in width from five to seven miles east and west. The only allotment boundary fence is at the northeast corner, in common with the Comet Allotment. See Tables 5.14.1 and 5.14.2, and Figure 5.14.1 for details of the allotment boundary and railroad route.

Table 5.14.1 Bennett Spring Allotment Details

Allotment Acres		Grazing Permit				Proposed Track Coverage	
Public	**Private**	**Number/Type of Livestock**		**Season of Use**	**Total AUMs**	**Miles**	**ROW Acres**
48,677	169	Guymon	1538 sheep	10/16 - 2/28	1375	Common Segment	
			1538 sheep	3-01 – 4/30	617	10.27	257
		Williams	1165 sheep	10/16 - 2/28	1042	Klondike Gap Route	
			1165 sheep	3-01 – 4/30	467	5.93	148
						Antelope Route	
						7	175

Table 5.14.2 Bennett Spring Allotment Permitted Use AUMs

	Active	Suspended	Total
Guymon	1,992	1,518	3,510
Williams	1,506	1,149	2,655
Total	3,498	2,667	6,165

GRAZING SYSTEM

Both Permittees use the allotment in the winter and spring. Sheep are moved about the allotment by herding and hauling water to various locations.

Guymon: This Permittee also has a permit in the Black Canyon Allotment. Mr. Guymon combines sheep from both allotments into one operation and grazes them as if the two allotments were one.

Williams: This Permittee also has permits in the Klondike Allotment and the Black Canyon Allotment. The Williams' combine sheep from all three allotments into one operation and graze them as if the three allotments were one.

STOCKWATERS

Bennett Springs is located on private land. It is the primary source of water for the Bennett Spring Allotment (Map Reference 1). Water from Bennett Springs is also hauled to the Black Canyon Allotment to the west, and the Highland Peak Allotment to the north. Klondike Spring (Map Reference 2) and the George Roger Well (Map Reference 3) just inside the Klondike Allotment to the west are used to supply water for grazing on the west side of the Chief Range.

5.14.2 Fencing Preference

Both Permittees are opposed to fencing the proposed right-of-way of the Common Segment Route.

5.14.3 Proposed Railroad Alignment

The Common Segment railroad alternative is the proposed route through the Bennett Spring Allotment. The railroad track and service road will enter in the northeast corner of the allotment from the Comet Allotment, then trend west toward Bennett Springs. The railroad will come within .75 miles of Bennett Spring and trend to the south before sweeping northwest, passing over Bennett Pass (Map Reference 4) and exiting into the Black Canyon Allotment.

5.14.4 Impacts and Mitigation Without Fencing – Common Segment

IMPACTS TO VEGETATION AND FORAGE

Inside the 257 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The track and service road will cross a fence upon entering the allotment at Map Reference 5.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road in the fence opening at Map Reference 5.

IMPACTS TO SHEEP MOVEMENT

The proposed track and service road will surround Bennett Spring (Map Reference 1), the primary water source for the allotment, on three sides. This will greatly reduce the acres of range that can be grazed without crossing the proposed track and service road.

MITIGATION

The track and service road present sheep management problems that cannot be mitigated satisfactorily. Partial mitigation can be obtained by constructing sheep crossings every mile along the track consisting of earth ramps 100 feet long with approaches not to exceed 25 percent. Additional sheep crossings will be needed in the Bennett Springs area. This mitigation will require a total of fourteen sheep crossings. Road crossings proposed at Map References 6 and 7 can be expanded into sheep crossings. The Permittees will determine the locations after the centerline of the track is staked.

IMPACTS TO STOCKWATERS

The proposed track and service road are within less than one mile of the primary source of water for the allotment, Bennett Springs (Map Reference 1).

MITIGATION

Installation of 2.5 miles of pipeline from Bennett Springs with sheep water troughs would be necessary to bring water into the Chief Pasture at Map Reference 9. This location is offered as a possibility only. The actual location will need to be determined onsite.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross three roads used for hauling water (Map References 6, 7, and 8). The track will interrupt traffic along these roads.

MITIGATION

Construct a road crossing over the track at each road. Approaches are not to exceed six percent grade.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Leaving the right-of-way unfenced increases the risk of sheep being hit by trains.

MITIGATION

Fence the right-of-way with sheep fencing. Cattle fencing is not sufficient to hold sheep.

5.14.5 Impacts and Mitigation With Fencing – Common Segment

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The actual amount of forage loss cannot be determined until the right-of-way is fenced. Keep disturbance to a minimum.

IMPACTS TO PASTURE DESIGN

Fencing the right-of-way will divide the allotment into two pastures, labeled the Bennett Springs Pasture and the Chief Pasture. It would also isolate an area called the North Area, in effect making that portion of the Bennett Spring Allotment part of the Black Canyon Allotment.

MITIGATION

Installing gates to move sheep back and forth to water on a regular basis is impractical. The best mitigation is to convert the sheep crossings discussed in the No Fencing option to underpasses. A road cattleguard on each side of the service road will need to be installed at each underpass. In addition, it would be necessary to install a set of heavy gauge gates hinged on ten-inch well casings set in concrete at each road crossing. This will entail a total of fourteen underpasses, six gates, and 28 road cattleguards.

IMPACTS TO SHEEP MOVEMENT

The proposed track and service road will surround the primary water source of Bennett Springs on three sides (Map Reference 1). Fencing will stop the movement of sheep across the track and service road. This will greatly reduce the size of the area of range served by water from Bennett Springs. Sheep need to water every day for most of the year, and fencing the right-of-way will compound the sheep management problem.

MITIGATION

Rather than the sheep crossings discussed in the *Without Fencing* analysis, install underpasses. A total of fourteen underpasses would be required, as discussed in the section *Impacts to Pasture Design*. At best this is only a partial mitigation and will complicate the operation of handling sheep.

IMPACTS TO STOCKWATERS

The proposed track and service road will pass within one mile of the primary water source in the allotment, Bennett Springs.

MITIGATION

Installation of 2.5 miles of pipeline from Bennett Springs with sheep water troughs would be necessary to bring water into the Chief Pasture at Map Reference 9. This location is offered as a possibility only. The actual location will need to be determined onsite.

IMPACTS TO ROADS

The proposed track and service road will cross three roads used for hauling water. (Map References 6, 7, 8).

MITIGATION

Construct road crossing with approaches not to exceed six percent. Install a road cattleguard on the service road on each side of the track. This equals a total of three road crossings and six road cattleguards.

5.14.6 Impacts and Mitigation Without Fencing – Klondike Gap Mitigatory Route

The Permittee has proposed a mitigatory route that would enter the allotment at some point south of the proposed Common Segment route. Map Reference 10 and Map Reference 11 are offered as examples of possible entry and exit points. From the entry point the railroad would trend toward Klondike Gap, following the topography. From Klondike Gap the railroad would continue west to join the Common Segment route in the Black Canyon Allotment. This segment of track would cross 5.9 miles of the allotment, and the right-of-way would occupy 148 acres of land. The impacts and mitigation detailed below assume this segment of track is constructed.

IMPACTS TO VEGETATION AND FORAGE

Inside the 148 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The actual amount of forage loss cannot be determined until construction is complete. Keep disturbance to the minimum amount possible.

IMPACTS TO SHEEP MOVEMENT

The track and service road will impede movement of sheep southward.

MITIGATION

Construct six sheep crossings over the track, spaced approximately one mile apart. The locations are to be selected after the centerline of the track is staked. Sheep crossings will consist of earth ramps 100 feet wide with approaches not to exceed 25 percent grade. The Mitigatory Route will make over 9,000 acres of rangeland available for grazing without sheep having to cross the railroad. This is an important issue especially with very young lambs.

IMPACTS TO STOCKWATERS

The proposed track and service road would pass no closer than two miles from the Bennett Spring.

MITIGATION

While the railroad will still impact the service area of the spring, the alignment of this proposed route is a much improved situation for sheep grazing and is the mitigation for impacts to stockwaters. The sheep will be able to graze many more acres without crossing the track.

IMPACTS TO ROADS AND TRAILS

The Mitigatory Route will cross three roads used for hauling water.

MITIGATION

Construct road crossings on the three roads, with approaches not to exceed six percent grade. The crossings can be expanded to 100 feet wide to serve as sheep crossings.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is some risk of sheep getting on the track and being hit by a train.

MITIGATION

Mr. Guymon prefers that the right-of-way be fenced from the Klondike Gap eastward, to keep his sheep from returning to Bennett Springs at night. The risk of animal-train collisions is less with the Mitigatory Route than with the Common Segment route because the Mitigatory Route is further from Bennett Springs, where sheep congregate.

5.14.7 Impacts and Mitigation With Fencing – Klondike Gap Mitigatory Route

Fencing the right-of-way will require at least 11.8 miles of sheep fence, and possibly up to thirteen miles, once the actual route is determined. Cattle fencing is not adequate for sheep.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO PASTURE DESIGN

Fencing the right-of-way will divide the allotment into two pastures, as does the Common Segment route. However, the Mitigatory Route will create a much larger and more useable Bennett Springs Pasture.

MITIGATION

The mitigation is the same as that detailed for the Common Segment Route with fencing.

IMPACTS TO SHEEP MOVEMENT

Fencing the right-of-way will close off movement of sheep between the Bennett Springs Pasture and the Chief Pasture.

MITIGATION

Construct six underpasses to accommodate sheep passage over the service road and under the railroad. Each underpass will require two road cattleguards on the service road, for a total of twelve road cattleguards.

IMPACTS TO STOCKWATERS

Impacts to stockwaters with fencing are the same as without fencing.

MITIGATION

Mitigation for impacts to stockwaters with fencing is the same as those without fencing.

IMPACTS TO ROADS AND TRAILS

This route will cross three roads used for hauling water, disturbing water hauling activities and other traffic.

MITIGATION

Construct road crossings on all three roads with approaches not to exceed six percent grade. These road crossings can be expanded into sheep crossings as in the *Without Fencing* option. Each road crossing will require two road cattleguards on the service road as well, for a total of three road crossings and six road cattleguards.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Sheep may still get on the track despite the right-of-way being fenced.

MITIGATION

Install three escape gates in the right-of-way fence. Suggested gate design is twelve-foot heavy metal gates hinges on ten-inch well casings set in concrete. The Permittee can lock the gates to prevent them being left open.

5.14.8 Impacts and Mitigation Without Fencing – Antelope Alternative Route

The Antelope Alternative Route would follow the south side of Antelope Canyon, located in the south end of the Bennett Springs Allotment. This route is viable only if it continues to extend westward toward Dry Lake Valley and beyond. The route is the gateway to several alignment options, and would significantly shorten the total mileage of the proposed railroad project. The route could eventually tie back into the proposed route near the Lincoln County-Nye County boundary, or could continue directly through the Nevada Test and Training Range to the Nevada Test Site. This alternative should be explored fully for viability and potential impacts, subsequently comparing it to the proposed route.

The Antelope Alternative Route would enter the allotment from the east, traveling up Antelope Canyon from the Caliente Allotment. This route would run in a westerly direction across the south end of the allotment for a distance of seven miles.

There are two alignment options (Antelope Alternative-A and Antelope Alternative-B) for this route. Approximately half the distance from the eastern boundary to the western boundary of the allotment, the A and B routes split from a common route and follow different canyons to pass across the Chief Range. Antelope Alternative-A follows an undeveloped canyon until it reaches an established road just before exiting the allotment and entering the Cliff Springs Allotment. Antelope Alternative B follows an established road known as Old Highway 93. See Figure 5.14.1 for details of the Antelope Route.

IMPACTS TO VEGETATION AND FORAGE

Inside the right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The track and service road will cross a fence at the exit point into the Cliff Allotment, leaving an opening for cattle to drift into or out of the allotment.

MITIGATION

Install a railroad cattleguard, and a road cattleguard on the service road.

IMPACTS TO SHEEP MOVEMENT

Mr. Guymon reports rare use of Antelope Canyon for his sheep grazing operation. Thus the Antelope Route would have a minimal impact to the grazing operation.

Mr. Williams reports some use of the canyon, hence the Antelope Route would have some impact to his grazing operation. If this route is chosen, Mr. Williams prefers the railroad be aligned on the south side of the canyon to minimize the impacts.

MITIGATION

Construct the railroad on the south side of the canyon. Construct seven sheep crossings along the track, with locations to be determined by the Permittees.

IMPACTS TO STOCKWATER

Klondike Spring is the closest water source, four miles away. The railroad will not impact the service area of this stockwater. There is some water in the canyon during periods of runoff. Otherwise water is hauled for sheep use.

MITIGATION

No stockwater mitigation recommended

IMPACTS TO ROADS AND TRAILS

The Antelope Route would follow an existing roadway, Old Highway 93. The alignment will create engineering issues such as how to blend the railroad and road into a working transportation route for all uses.

The railroad will cross two trails.

MITIGATION

Close coordination will be necessary between the DOE, BLM, and County Roads Department to design a workable route for both the road and railroad. The use of the existing road as the railroad service road is a possibility.

Construct trail crossings on each trail with approaches not to exceed six percent grade.

IMPACTS TO SHEEP FROM COLLISIONS

There is an increased risk of sheep death from collisions if the right-of-way is not fenced.

MITIGATION

Fencing the right-of-way will reduce the chance of sheep death from collisions. However, both Permittees are opposed to fencing the right-of-way, believing fencing will cause more problems than it will solve.

5.14.9 Impacts and Mitigation With Fencing – Antelope Alternative Route

Fencing the right-of-way will require fourteen miles of sheep fencing.

IMPACTS TO SHEEP MOVEMENT

Fencing the right-of-way will segregate a small area south of the railroad from the rest of the allotment. It is impractical to move sheep back and forth across the track to make use of the area south of the railroad.

MITIGATION

No mitigation is offered.

IMPACTS TO TRAILS

The railroad will cross two trails, and fencing the right-of-way will block access along the trails.

MITIGATION

Install cattleguards on the trails with approaches not to exceed twelve percent.

Both Permittees prefer the Antelope Route over either the Common Segment or the Klondike Gap Mitigatory Route, because of fewer impacts to their grazing operations with the Antelope Route.

5.14.10 Additional Impacts

With either route, and with or without fencing, it is important to develop another water source in the Chief Pasture. This could be an equipped well with a set of sheep troughs.

It is extremely important to the grazing operation in the Bennett Springs Allotment that the Common Segment as proposed be altered to the Klondike Gap Mitigatory Route proposed in this section. The Common Segment makes sheep management very difficult. Both Permittees prefer the Klondike Gap Route.

Brad Guymon is of the opinion that the railroad should begin in Caliente. He proposes the following:

> The railroad to travel west along US Highway 93, then trend northwest up Antelope Canyon and go over the pass of the Burnt Springs Range into the Dry Lake Valley and continue west. This route is much shorter.

Table 5.14.3 Bennett Spring Allotment Impacted Features

Permittee Fencing Preference: Without Fencing

Impacted Features	Common Segment	Klondike Gap Route	Antelope Route
Stockwaters w/in 4 miles	1	1	
Stockwaters w/in 1 mile	1		
Fences (ea)	1		1
Roads (ea)	3	3	*
Trails (ea)			4
Pipelines (ea)	1		
Other			

*The Antelope Route would be adjacent to an existing road for most of its run through the allotment.

Table 5.14.4 Bennett Spring Allotment Mitigation Project Comparison

Proposed Mitigation Units	Common Segment		Klondike Gap Route		Antelope Route	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi) (sheep)		20.5		11.8		14
Gates (ea)		6		0		0
Railroad Cattleguards (ea)	1	2		2	1	2
Road Cattleguards (ea)	1	28		18	1	8
Road Crossings (ea)	3	3	3	3		
Trail Crossings (ea)					4	4
Cattle Crossings (ea)						
Sheep Crossings (ea)	14	14	3	3	7	7
Pipeline Construction (mi)	2.5	2.5				
Pipeline Crossings (ea)	1	1				
Unspecified Stockwaters	1	1	1	1		
Troughs (ea)	2	2	1	1		
Wells (ea)						
Springs (ea)						
Other						

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

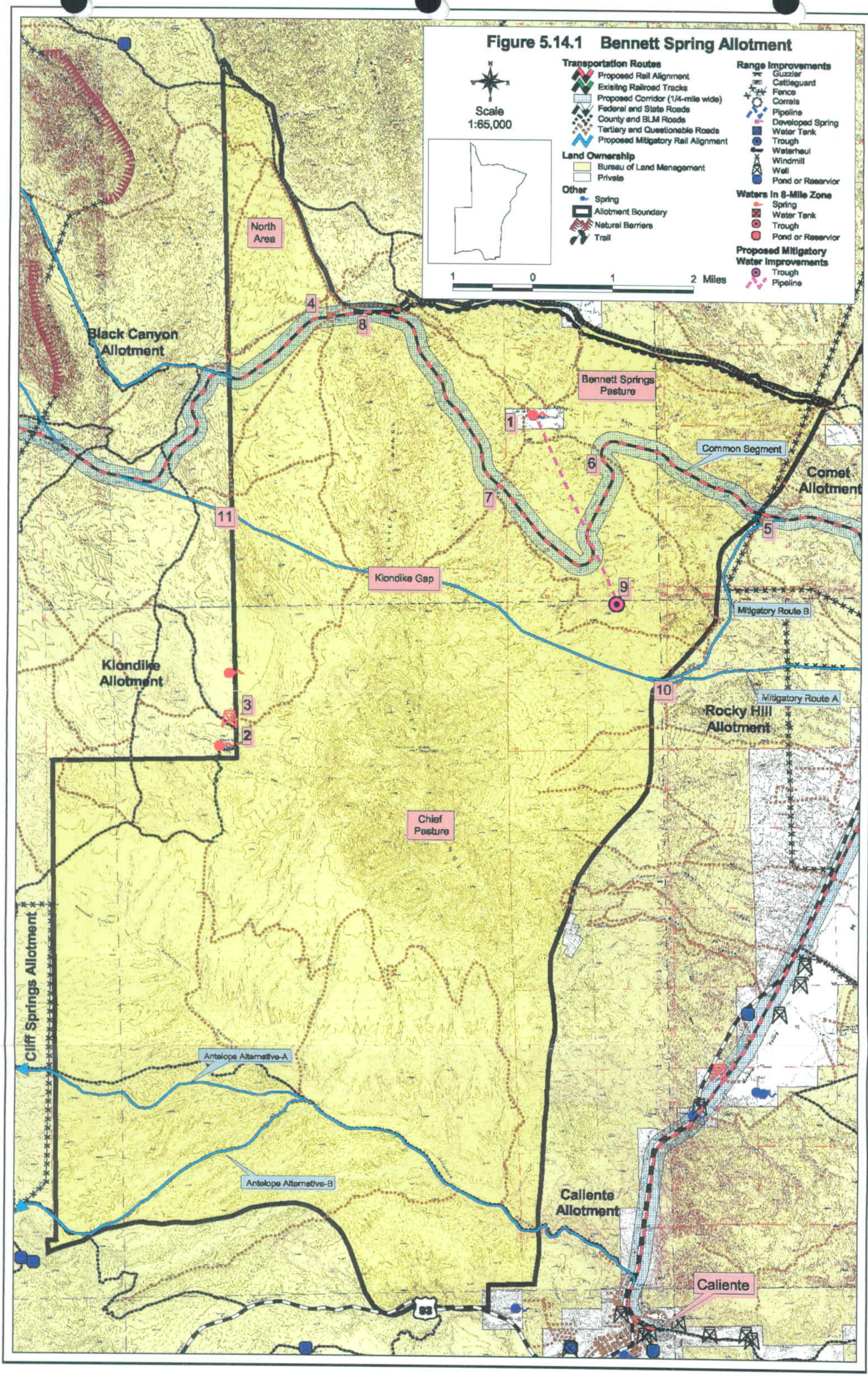
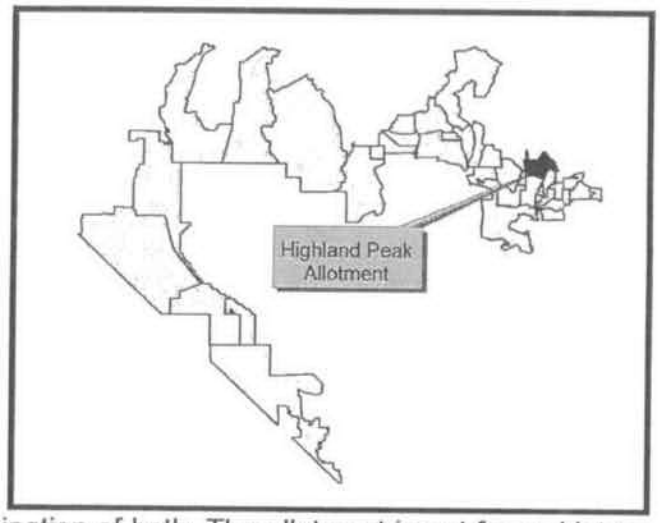


Figure 5.14.1 Bennett Spring Allotment
Scale
1:65,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Proposed Mitigatory Rail Alignment
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
Waters In 8-Mile Zone
Spring
Water Tank
Trough
Pond or Reservior
Proposed Mitigatory Water Improvements
Trough
Pipeline
1 0 1 2 Miles
North Area
Black Canyon Allotment
Bennett Springs Pasture
Common Segment
Comet Allotment
Klondike Gap
Mitigatory Route B
Klondike Allotment
Mitigatory Route A
Rocky Hill Allotment
Chief Pasture
Cliff Springs Allotment
Antelope Alternative-A
Antelope Alternative-B
Caliente Allotment
Caliente
1
2
3
4
5
6
7
8
9
10
11

5.15 HIGHLAND PEAK ALLOTMENT

Permittee: Brent Hunter
Contact: Brent Hunter
Address: 3795 North Bulldog Rd.
Cedar City, UT 84720



5.15.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Highland Peak Allotment is approximately two miles south of Pioche. The allotment is approximately thirteen miles long east and west and seven miles wide north and south. At present the allotment is unused. The plan is to change from sheep to cattle or to a combination of both. The allotment is not fenced into pastures. See Tables 5.15.1 and 5.15.2, and Figure 5.15.1 for details of the allotment boundary.

Table 5.15.1 Highland Peak Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
48,555	3,186	2646 sheep	10-16 / 5-15	3689	Undetermined	
Total – 51,741						

Table 5.15.2 Highland Peak Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
3,704	804	4,508

GRAZING SYSTEM

There is no set grazing system for this allotment.

STOCKWATER DESIGN

There is one water source, a well with a stock tank, on the allotment located near the proposed track and service road (Map Reference 1). It is situated approximately 2.5 miles from where the track is proposed for construction. The Permittee has also hauled water from Bennett Springs, located on the Bennett Spring Allotment to the south (Map Reference 2). There are other water sources at the north end of the allotment that are not impacted by the proposed track and service road.

5.15.2 Fencing Preference

The Permittee prefers that the proposed track not be fenced.

5.15.3 Proposed Railroad Alignment

The Common Segment Route as proposed will just miss the allotment boundary at the southwest corner of the allotment. It is difficult to assess specific impacts until the centerline of the track is staked and the exact location is known. The Permittee does not foresee impacts from the proposed railroad to his use permit.

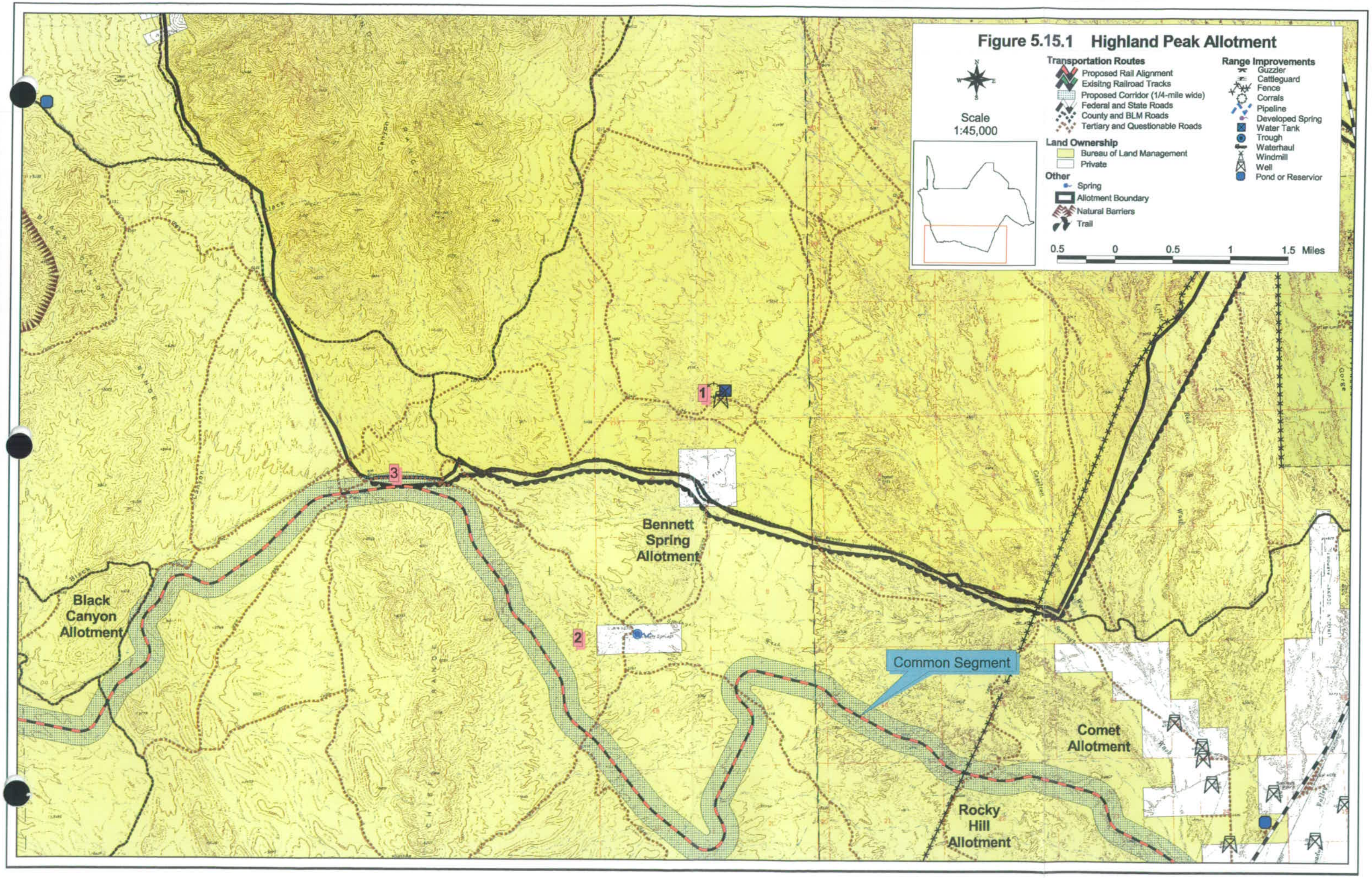
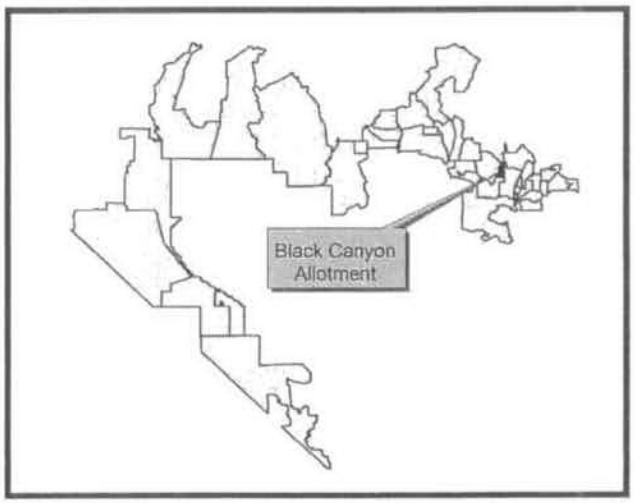


Figure 5.15.1 Highland Peak Allotment
Scale
1:45,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
0.5 0 0.5 1 1.5 Miles
1
2
3
Bennett Spring Allotment
Black Canyon Allotment
Common Segment
Comet Allotment
Rocky Hill Allotment

5.16 BLACK CANYON ALLOTMENT

Permittee 1: Brad Guymon
Contact: Brad Guymon
Address: 396 North 500 West
Cedar City, UT 84720

Permittee 2: Thomas and Warren Williams
Contact: Thomas Williams
Address: 250 South 100 West
Cedar City, UT 84720



5.16.1 Existing Situation

Base Property: Water

ALLOTMENT DESCRIPTION

The east side of the Black Canyon Allotment is located approximately ten miles west of Panaca. The allotment is approximately eight miles long on the east side where it has an unfenced common boundary with the Bennett Springs Allotment. The southern side has a common boundary about 4.5 miles long with the Klondike Allotment, which is unfenced. The western side of the allotment shares a boundary with the Ely Springs Allotment, which is fenced along some portions, or divided by a topographic formation called The Bluffs along other parts of the boundary. The allotment is not fenced into pastures. See Tables 5.16.1 and 5.16.2, and Figure 5.16.1 for details of the allotment and railroad route.

Table 5.16.1 Black Canyon Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT				TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**		**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
8,636	0	Guymon	518 sheep	10-16 / 2-28	463	Common Segment	
						3.42	86
				3-01 / 4-30	208	A1	
		Williams	260 sheep	10-16 / 2-28	233	3	75
						A2	
				3-01 / 4-30	104	2.6	66

Table 5.16.2 Black Canyon Allotment Permitted Use AUMs

	ACTIVE	SUSPENDED	TOTAL
Guymon	770	176	946
Williams	335	88	423
Total	1,105	264	1,369

GRAZING SYSTEM

Sheep are moved about the allotment to take advantage of water sources and regulate grazing use.

STOCKWATERS

There are four stockwater sources in the allotment.

1. The George Roger Well is located at the extreme southeast corner of the allotment (Map Reference 1).
2. The Klondike Spring is located south of the southwest corner of the allotment (Map Reference 2).
3. Water is hauled for livestock use from Bennett Springs in the Bennett Springs Allotment to the east.
4. During the wet season there are puddles of water on the range that provide a seasonal water source.

GRAZING AND SHEEP MOVEMENT

Guymon has a permit for use in the Bennett Springs Allotment as well, and combines his sheep for both permits, operating as if both allotments are one grazing unit.

The Williams' also have permits in the Bennett Spring Allotment to the east, and the Klondike Allotment to the south. They combine sheep from all three allotments and treat them as one allotment.

5.16.2 Fencing Preference

Both Permittees agree that the proposed track and service road should not be fenced.

5.16.3 Proposed Railroad Alignment

The Common Segment of the proposed railroad and service road will enter the allotment near the middle of the east side, from the Bennett Spring Allotment. The track and service road trend southwest, then back northwest and exit into the Ely Springs Allotment.

Three mitigatory routes are proposed for the Ely Springs Cattle Allotment. The Klondike Option would pass through the Klondike Gap in the Bennett Spring Allotment, and enter the Black Canyon Allotment at Map Reference 6. It will join the Common Segment at Map Reference 7, continue westerly, and exit the allotment at Map Reference 3. The A1 and A2 options will enter the Ely Springs Cattle Allotment from the Black Canyon Allotment, necessitating the modification of the Common Segment option and the Mitigatory Route already detailed in the Black Canyon Allotment.

5.16.4 Impacts and Mitigation Without Fencing – Common Segment

IMPACTS TO VEGETATION AND FORAGE

Inside the 86 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The proposed track and service road will cross a fence where they exit the allotment, allowing animals to enter and exit the allotment at will. See Map Reference 3. The point of entry has no fence.

MITIGATION

Install a railroad cattleguard and road cattleguard on the service road in the fence opening where the track and service road exit the allotment.

IMPACTS TO STOCKWATERS

The service area from the George Roger Well and the Klondike Spring will be impacted by the proposed track and service road on the north. The four-mile radius service area from the base property water extends approximately 1.5 miles north of the proposed track and service road.

MITIGATION

Develop one unspecified stockwater source north of the railroad, possibly an equipped well with a set of sheep troughs.

IMPACTS TO SHEEP MOVEMENT

The alignment of the proposed track will impede sheep movement.

MITIGATION

Construct three sheep crossings, 100 feet wide with approaches not to exceed 25 percent grade.

IMPACTS TO ROADS AND TRAILS

The track will cross two roads used for hauling water (Map References 4 and 5).

MITIGATION

Construct road crossings on both roads with approaches not to exceed six percent grade. The road crossings should be modified to double as sheep crossings. The service road may also serve as a water hauling route.

IMPACTS TO SHEEP FROM COLLISIONS

Leaving the right-of-way unfenced increases the risk of animal train collisions.

MITIGATION

Fencing the right-of-way may reduce the chances of sheep death from collisions on the track. However, the Permittees feel that fencing will create greater problems and are opposed to fencing the right-of-way.

5.16.5 Impacts and Mitigation With Fencing – Common Segment

Fencing along the right-of-way will be sheep fencing instead of cattle fencing. It will require seven miles of fencing to fence the right-of-way.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The amount of forage loss in the right-of-way cannot be determined accurately until the centerline of the track is staked. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCING

The proposed track will cross the fence at the boundary of the Black Canyon Allotment and Ely Springs (Map Reference 3). This will allow animals to cross between the allotments. There is no fence at the entry point into the allotment of the proposed track and service road.

MITIGATION

Install a railroad cattleguard and road cattleguard on the service road at each fence opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO SHEEP MOVEMENT

Fencing the right-of-way would create two pastures and block access between the two pastures. For this analysis these are labeled North Pasture and South Pasture on Figure 5.16.1.

MITIGATION

The Permittees prefer underpasses rather than overcrossings if the right-of-way is fenced, but the feasibility of underpasses in unknown. DOE, BLM, and the Permittees must meet onsite and determine if underpasses or overcrossings are more appropriate in the event the right-of-way is fenced. In the meantime, three sheep crossings are detailed in Table 5.16.4 with the intent that they could be either kind of crossing. Overcrossings will need to be 100 feet wide with 100-foot gates to accommodate sheep.

IMPACTS TO STOCKWATERS

The fenced right-of-way will be a greater barrier to sheep movement in the service areas of the George Roger Well and the Klondike Spring. The fenced right-of-way will reduce the four-mile radius from the well and spring by 1.5 miles on the north side of the service area.

MITIGATION

Construct three sheep crossings for sheep movement across the track.

Develop an unspecified stockwater source north of the railroad, possibly an equipped well with a set of sheep troughs.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross two roads used for hauling water. Fencing the right-of-way will impede vehicle movement to haul water for sheep.

MITIGATION

Construct a road crossing at each road with approaches not to exceed six percent. Each crossing will require two road cattleguards for a total of two road crossings and four road cattleguards. Modify the width of the crossings to 100 feet to accommodate sheep.

5.16.6 Impacts and Mitigation Without Fencing – A2 Mitigatory Route

The Permittees have proposed an alternative route through the Klondike Gap in the Bennett Spring Allotment, which will cross the Black Canyon Allotment. This option would cross westward and join the Common Segment before exiting into the Ely Springs Cattle Allotment.

IMPACTS TO VEGETATION AND FORAGE

Inside the right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The A2 Option will pass through one existing fence as it exits the allotment (Map Reference 3), leaving an opening through which livestock could drift in and out of the allotment.

MITIGATION

Install a railroad cattleguard on the railroad and a road cattleguard on the service road.

IMPACTS TO STOCKWATERS

The A2 Option will come within two miles of the George Roger Well (Map Reference 1) and the Klondike Spring (Map Reference 2).

MITIGATION

Develop one unspecified stockwater source north of the railroad, possibly one equipped well with a set of sheep troughs.

IMPACTS TO ROADS AND TRAILS

The railroad will cross two roads used to haul water, disrupting traffic.

MITIGATION

Construct a road crossing on each road with approaches not to exceed six percent grade. The crossings should be modified to double as sheep crossings.

IMPACTS TO SHEEP MOVEMENT

The railroad will impede sheep movement, especially for lambs.

MITIGATION

Construct three sheep crossings at locations to be determined by the BLM and the Permittees.

IMPACTS TO SHEEP FROM COLLISIONS

Leaving the railroad unfenced increases the risk of animal-train collisions.

MITIGATION

Fencing the right-of-way could reduce the risk of animal-train collisions, however the Permittees feel that fencing will create more problems than it will solve and are opposed to fencing the right-of-way.

5.16.7 Impacts and Mitigation With Fencing – A2 Mitigatory Route

Fencing the right-of-way will require 5.3 miles of sheep fencing.

IMPACTS TO VEGETATION AND FORAGE

Impacts to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

Fencing the right-of-way will create an opening as the railroad passes through a fence on exiting the allotment at Map Reference 3.

MITIGATION

Install a railroad cattleguard on the track, and a road cattleguard on the service road.

IMPACTS TO SHEEP MOVEMENT

Fencing the right-of-way will create two pastures and block access between the two pastures. For this analysis the pastures are labeled the Upper Pasture and the Lower Pasture on Figure 5.16.1.

MITIGATION

Mitigation is the same as that detailed under Section 5.16.5, *Impacts and Mitigation With Fencing – Common Segment.*

IMPACTS TO STOCKWATERS

See the *Without Fencing* option.

MITIGATION

See the *Without Fencing* option.

IMPACTS TO ROADS AND TRAILS

Fencing the right-of-way will cut off access to the two roads intersected by the railroad, disrupting traffic.

MITIGATION

Mitigation is the same as that detailed under Section 5.16.5, *Impacts and Mitigation With Fencing – Common Segment.*

IMPACTS TO SHEEP FROM COLLISIONS

Fencing the right-of-way will leave an open end where the railroad enters the allotment at Map Reference 6, allowing animals to enter the right-of-way and increasing the risk of animal-train collisions.

MITIGATION

Install a railroad cattleguard on the track, and a cattleguard on the service road.

5.16.8 Impacts and Mitigation Without Fence - A1 Mitigatory Route

A1 is a modification of the Common Segment option. After entering the allotment from the Bennett Spring Allotment at Map Reference 8, the railroad would trend northwest, traveling adjacent to an existing road and exiting at Map Reference 9. .

IMPACTS TO VEGETATION AND FORAGE

Inside the right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM grazing permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The A1 mitigatory route would pass through one fence as it exits the allotment, leaving an opening for livestock to drift in and out of the allotment at will.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road in the fence opening.

IMPACTS TO STOCKWATERS

The closest stockwaters to the route are four miles to the south at the George Roger Well (Map Reference 1), and the Klondike Spring (Map Reference 2). The route is at the outer edge of the two water sources. Livestock watering in the area the route would travel through is dependent on water hauling and precipitation events.

MITIGATION

Develop an unspecified water source for livestock north of the A1 option.

IMPACTS TO SHEEP MOVEMENT

The railroad will be an impediment to sheep movement throughout the allotment, especially for lambs.

MITIGATION

Construct three sheep crossings along the track, to be determined collaboratively by the BLM and the Permittees. Crossings should be earth ramps 100 feet long with approaches not to exceed 25 percent grade.

IMPACTS TO ROADS AND TRAILS

Depending on the final alignment, the route may cross two roads (Map References 10, 11), interrupting traffic movement.

The alignment of the railroad adjacent to an existing road may cause additional impacts, and engineering considerations to blend the two into an operational travel route. This road is used for water hauling and must be kept open when sheep are grazing in the area.

MITIGATION

Construct a road crossing on each of the road/railroad intersections, with approaches not to exceed six percent grade. Modify the width of the crossings to 100 feet to accommodate sheep.

IMPACTS TO SHEEP FROM COLLISIONS

There is a risk of sheep-train collisions if the right-of-way is not fenced.

MITIGATION

Fence the right-of-way. However, the Permittees feel that fencing the right-of-way will create more problems than it will solve.

5.16.9 Impacts and Mitigation With Fencing – A1 Mitigatory Route

Fencing the right-of-way will require six miles of sheep fencing.

IMPACTS AND MITIGATION TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

IMPACTS TO EXISTING FENCE

The railroad would pass through an existing fence as it exits the allotment at Map Reference 9. This would create an opening between the right-of-way fence and the existing fence, allowing cattle from the Ely Springs Cattle Allotment to enter the right-of-way.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at the fence intersection.

IMPACTS TO SHEEP MOVEMENT

Fencing the right-of-way would create two separate pastures and block access between the pastures. For this analysis they are labeled the Upper Pasture and the Lower Pasture on Figure 5.16.1. This will complicate the overall allotment management. Fencing the right-of-way will make it difficult to move sheep back and forth over the railroad.

MITIGATION

Mitigation is the same as that detailed under Section 5.16.5, *Impacts and Mitigation With Fencing – Common Segment.*

IMPACTS AND MITIGATION TO STOCKWATERS

See Section 5.16.4, Impacts *to Stockwaters.*

IMPACTS TO ROADS AND TRAILS

Fencing the right-of-way will cut off access to two roads crossed by the railroad.

MITIGATION

Install a road cattleguard on each side of the right-of-way, for a total of four road cattleguards.

Table 5.16.3 Black Canyon Allotment Impacted Features

Permittee Fencing Preference: Without Fencing

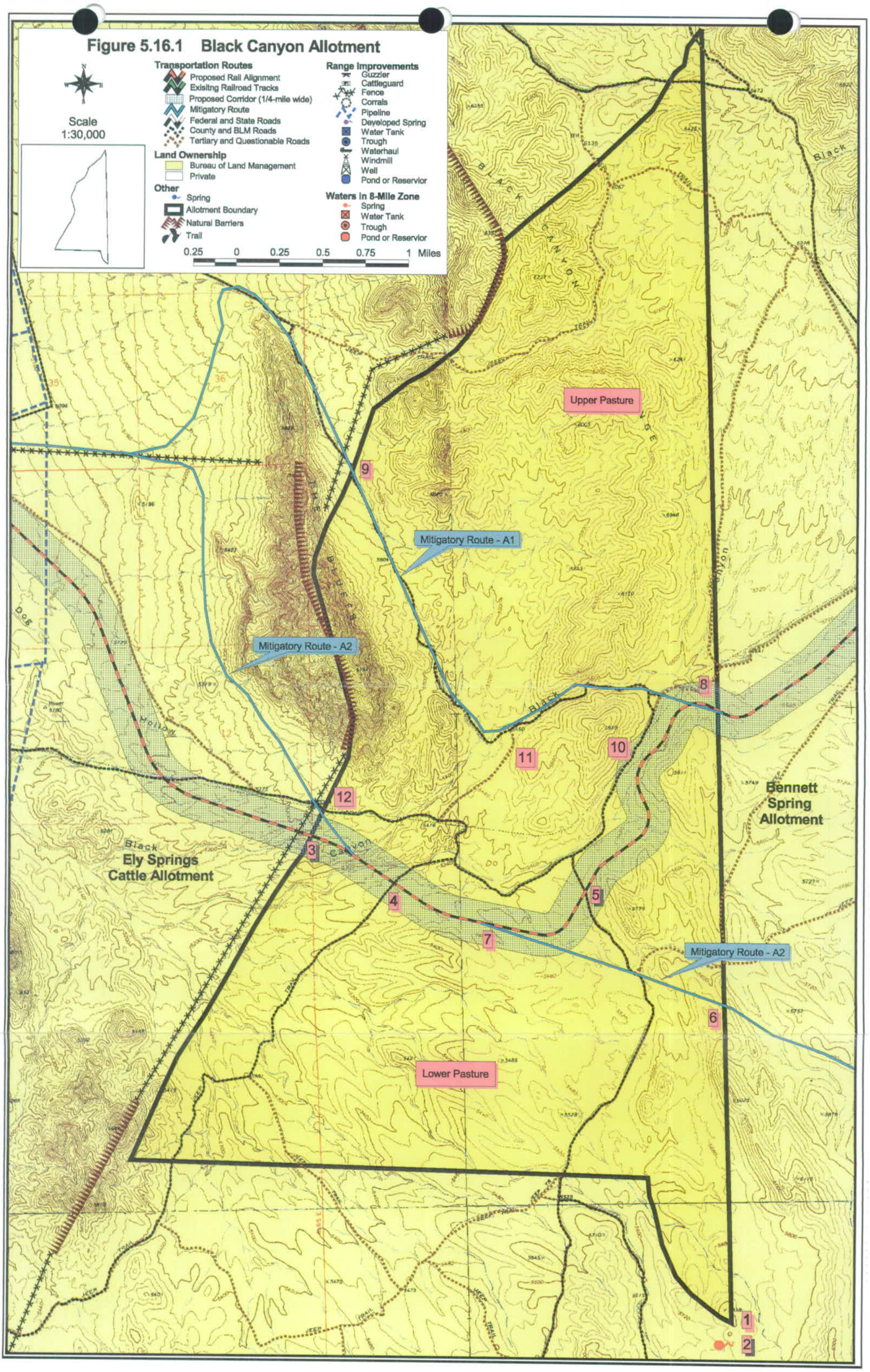
Impacted Features	Common Segment	A1	A2
Stockwaters w/in 4 miles	2	2	2
Stockwaters w/in 1 mile			
Fences (ea)		1	1
Roads (ea)		2	2
Trails (ea)			
Pipelines (ea)			
Other			

Table 5.16.4 Black Canyon Allotment Mitigation Project Comparison

Proposed Mitigation Units	Common Segment		A1		A2	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi) (sheep)		6.8		6		5.3
Gates (ea)	2	12		10		12
Railroad Cattleguards (ea)	1	2	1	2	1	2
Road Cattleguards (ea)	1	11	1	9	1	11
Road Crossings (ea)	2	2	1	1	2	2
Trail Crossings (ea)						
Cattle Crossings (ea)						
Sheep Crossings (ea)	3	3	3	3	3	3
Pipeline Construction (mi)						
Pipeline Crossings (ea)						
Unspecified Stockwaters	1	1	1	1	1	1
Troughs (ea)	1	1	1	1	1	1
Wells (ea)						
Springs (ea)						
Other						

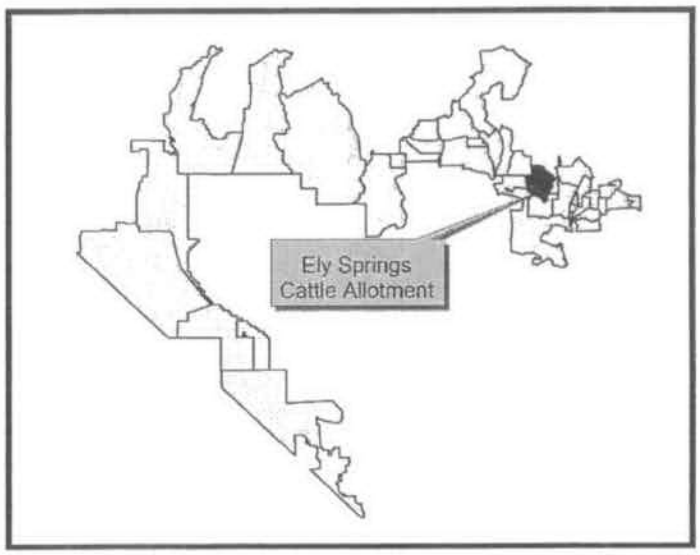
Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

Figure 5.16.1 Black Canyon Allotment



5.17 ELY SPRINGS CATTLE ALLOTMENT

Permittee: Laird Whipple
Contact: Laird Whipple
Address: Box 791
Panaca, NV 89042



5.17.1 Existing Situation

Base Property: Water – water rights are commingled, meaning that the delivery point can be changed. All water from the pipelines that provide stockwater for livestock on the allotment is water base property.

ALLOTMENT DESCRIPTION

The east side of the Ely Springs Cattle Allotment is approximately fourteen miles west of Panaca. The Allotment is about fourteen miles long north and south, and ten miles wide east and west. The allotment is entirely fenced except for two portions: one on the east boundary, which is inaccessible by cattle due to a topographical formation called The Bluffs; and another portion by the Black Canyon Range that is inaccessible. See Tables 5.17.1 and 5.17.2, and Figure 5.17.1 for details of the allotment boundary and railroad route. The mitigatory route is detailed on Figure 5.17.2.

Table 5.17.1 Ely Springs Cattle Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
57,240	606	354 cattle	3-01 / 2-28	4248	Common Segment	
					11.46	287
					A1	
					13.10	328
Total – 57,846					A2	
					12.97	324

Table 5.17.2 Ely Springs Cattle Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
4,248	600	4,848

GRAZING SYSTEM

Year long, with a rotational grazing system that requires the moving of cattle about the allotment into different pastures on a periodic basis to provide rest to forage producing species.

PASTURE DESIGN

The allotment is fenced into four big pastures with two smaller holding pastures in the north end of the allotment.

STOCKWATER DESIGN

The allotment is watered by a system of pipelines and stock water tanks. There are also several dirt ponds. Coyote Wash fills two of the dirt ponds, and runs parallel to the west side of the allotment. This allotment is very well watered when compared to the typical allotment in this part of Nevada.

5.17.2 Fencing Preference

The Permittee is opposed to fencing the proposed track and service road.

5.17.3 Proposed Railroad Alignment

The proposed track and service road will enter the east side of the allotment from the Black Canyon Allotment (Map Reference 5). It then will angle across the allotment in a west by slightly north direction, and exit to the west across the northeast corner of the Rattlesnake Allotment (Map Reference 6).

5.17.4 Impacts and Mitigation Without Fencing – Common Segment

IMPACTS TO VEGETATION AND FORAGE

Inside the 287 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

The Permittee is working with the BLM to combine this allotment with the Ely Springs Sheep Allotment and develop an intensive rotational grazing system. The Permittee does not see construction as a major impact to the loss of forage, and believes the intensive grazing management system will produce sufficient forage to offset any forage loss from construction activities.

IMPACTS TO EXISTING FENCE

The proposed track will pass through one fence upon entering the allotment and one fence upon exiting the allotment (Map References 5, 6), and through two pasture fences as it crosses the allotment (Map References 15, 16).

MITIGATION

Construct one railroad cattleguard and one road cattleguard on the service road at each intersection with fencing in the allotment.

IMPACTS TO LIVESTOCK MOVEMENT

The proposed track and service road will impede free movement of cattle as they graze and will also make the gathering and movement of cattle from pasture to pasture during rotation more difficult.

MITIGATION

Construct eleven cattle crossings consisting of earthen ramps with approaches not to exceed 25 percent grade. The Permittee would like to participate in determining the locations of the cattle crossings after the centerline of the right-of-way is staked.

IMPACTS TO STOCKWATERS

The allotment is fed by two off-allotment pipelines rather than one off-allotment pipeline as shown on the map. The proposed track will cut across the pipelines at three locations (Map References 8, 10, 17). Each of the pipelines has a maintenance trail parallel to the pipeline. Construction of the proposed track and service road will tear up the pipelines and the maintenance trails, disrupting water flow and the movement of vehicles during pipeline maintenance.

The proposed track will cross three forks of Coyote Creek Wash (Map Reference 7a, 7b, 7c), disrupting water flow through the wash and to the stockwater pits fed by the wash.

MITIGATION

During construction it is important to not interrupt or impede water flow in the pipelines. It is essential that the flow of water in Coyote Creek Wash not be interrupted during construction. It may be possible to conduct construction activities when water is not flowing in the wash. Crossings should be constructed to provide for peak flows of the wash.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross a County Road in three places (Map References 9, 11, 21) and will cross two trails (Map References 13, 14), in addition to crossing the above-mentioned pipeline maintenance trails at Map References 8, 10, and 17. Map Reference 21 refers to a point where the county road is used as a pipeline maintenance trail.

MITIGATION

Construct road crossings on the County Road with approaches not to exceed six percent grade; trail crossings with approaches not to exceed twelve percent grade; and a pipeline maintenance trail crossing with approaches not to exceed twelve percent grade, for a total of two road crossings, two trail crossings, and one pipeline maintenance trail crossing.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is a risk of cattle getting on the track and being hit by trains.

MITIGATION

The Permittee feels that this risk is not sufficient to warrant fencing the right-of-way.

OTHER IMPACTS

There is a buried fiber optic cable that runs through the allotment, however the exact location is unknown. The proposed track will cross this line and possibly destroy it. The BLM may be able to provide the contractor with information regarding the location of the fiber optic cable.

5.17.5 Impacts and Mitigation With Fencing – Common Segment

Fencing the right-of-way will require 23 miles of fence.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The amount of forage loss cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

The Permittee is working with the BLM to combine this allotment with the Ely Springs Sheep Allotment into an intensive rotational grazing system that includes both allotments. The Permittee does not see the loss of forage in the right-of-way as a problem, and believes the intensive management system will produce sufficient forage to offset any forage loss caused by fencing the right-of-way.

IMPACTS TO EXISTING FENCE

The proposed track and service road will cross a fence as they enter the allotment from the east, and as they exit to the west. This will leave openings for cattle to enter through the right-of-way from either side.

The proposed track and service road will also cross two pasture fences. These fences will join the right-of-way fence but will not cross the track or service road.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each entry and exit point, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing the right-of-way will prevent cattle from crossing the track and service road. The track and service road will create a new set of pastures as labeled on Figure 5.17.1.

Pasture 1: The fenced right-of-way will split off a portion of Pasture 1 into a very small pasture labeled the Dog Hollow Pasture on Figure 5.17.1. This pasture would be left without water.

Pasture 2: The fenced right-of-way would split Pasture 2 into two separate pastures labeled North Pasture 2 and South Pasture 2, as labeled on Figure 5.17.1.

Pasture 4: The fenced right-of-way would split off a portion of Pasture 4 into a very small pasture labeled the Bluffs Pasture on Figure 5.17.1, leaving the small pasture without a water source.

IMPACTS TO STOCKWATERS

The proposed track and service road will come very close to a livestock watering trough at Map Reference 17. There are also impacts to Coyote Wash, as detailed in the *Without Fencing* option.

MITIGATION

Add .5 mile of pipeline from Map Reference 17 to an addition at Map Reference 18 and place a trough there, for a total of .5 mile of pipeline and one trough. The pipeline will pass under the track and service road and will require a pipeline crossing.

There are several other mitigation options, detailed below by pasture. The Permittee wants underpasses installed if the right-of-way is fenced, however the feasibility of underpasses is unknown. DOE, BLM, and the Permittee need to meet onsite and determine if overcrossings or underpasses are more appropriate if the right-of-way is fenced. In the meantime, five cattle crossings are detailed in Table 5.17.4 with the intent that they could be either overcrossings or underpasses.

Pasture 1

Mitigation 1: Add one mile of pipeline with a water trough at Map Reference 20.

Mitigation 2: Remove the fence between the Dog Hollow Pasture and Pasture 4. This option would make the right-of-way fence the pasture boundary fence.

Mitigation 3: Construct one cattle crossing.

Mitigation 4: Place a gate on each side of the right-of-way in conjunction with the cattle crossing. The Permittee will be able to lock the gate to manage use of his allotment.

Pasture 2

Mitigation 1: Install three cattle crossings.

Mitigation 2: Construct three cattle crossings with a gate in the fence on each side of the right-of-way.

Pasture 4

Mitigation 1: Construct a five-mile pipeline and add a water trough at Map Reference 19.

Mitigation 2: Remove the fence between the Bluffs Pasture and Pasture 1. This option would make the right-of-way fence the pasture boundary fence.

Mitigation 3: Construct one cattle crossing.

Mitigation 4: Place a gate on each side of the right-of-way in conjunction with the cattle crossing. The Permittee will have control to lock the gates to manage use of his allotment. Gates should be sixteen-feet, heavy steel hinged on ten inch well casings set in concrete.

IMPACTS TO ROADS AND TRAILS

The impacts and mitigation to roads and trails will be the same as detailed in the *Without Fencing* option, with the exception of two additional road cattleguards at each road or trail crossing, for a total of fourteen road cattleguards.

IMPACTS TO LIVESTOCK FROM COLLISIONS

While fencing *may* reduce the number of cattle hit by trains, there is no guarantee that there will be no cattle-train collisions. This will be especially true as the fence ages.

OTHER IMPACTS

The impacts and mitigation to the fiber optic cable are the same as with the *Without Fencing* option.

5.17.6 Proposed Mitigatory Routes

The Permittee proposes two mitigatory route options that will reduce the overall impacts to cattle management. The routes are labeled A1 and A2 on Figure 5.17.2. Option A1 and A2 follow the same route but have a difference in length of .35 miles, and a different entry point into the allotment. Impacts and mitigation for both options are the same, detailed below.

A1 would enter the allotment from the Black Canyon Allotment about 2.25 miles north of the Common Segment (Map Reference H). After entering the allotment the railroad would travel north and adjacent to an existing road following the eastern edge of, and then curving around the northern tip of, The Bluffs. The railroad would then trend south to meet the A2 mitigatory option. This option would require a modification of the railroad route through the Black Canyon Allotment.

A2 enters from the Black Canyon Allotment about .25 miles north of the Common Segment (Map Reference I) and then trends north along the western edge of The Bluffs for approximately 2.25 miles. From this point the railroad would follow the same route as described above for A1.

5.17.7 Impacts and Mitigation Without Fencing – A1 and A2

IMPACTS TO VEGETATION AND FORAGE

Inside the right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Keep disturbance to a minimum during construction.

The Permittee is working with the BLM to combine this allotment with the Ely Springs Sheep Allotment and develop an intensive rotational grazing system. The Permittee does not see construction as a major impact to the loss of forage and believes the intensive grazing system will produce sufficient forage to offset any losses from construction.

The Permittee proposes the extension of a pipeline for two miles at Map Reference B and two new troughs at Map References C1 and C2, to open grazing on otherwise unserviced range.

IMPACTS TO EXISTING FENCE

Option A1 will cross the following fences:

- An existing fence as it enters the allotment at Map Reference H.

- An existing fence at Map Reference K.
- An existing fence as it exits the allotment at Map Reference J.

Option A2 will cross the following fences:

- An existing fence as it enters the allotment at Map Reference I.
- An existing fence at Map Reference L.
- An existing fence at Map Reference K.
- An existing fence at Map Reference J.

This will allow cattle to drift in and out of the allotment, and from pasture to pasture, at will.

MITIGATION

Install a railroad cattleguard and a cattleguard on the service road at each fence intersection. This will entail a total of three railroad cattleguards and three road cattleguards for Option A1; and four railroad cattleguards and four road cattleguards for Option A2.

IMPACTS TO LIVESTOCK MOVEMENT

Options A1 and A2 will impede cattle movement much less than does the Common Segment. The A1 option will impede cattle movement to the north end of The Bluffs; the A2 option will impede cattle movement to the south end of The Bluffs. Much of this area is steep and rocky and offers little in the way of grazing use. The eight-mile section of the railroad adjacent to the fence already has restricted use because of the existing fence.

MITIGATION

Construct cattle crossings at each of the gates in the existing fence that the track would parallel, assuming one-mile intervals. Construct two cattle crossings along the route at the west end of Pasture 2. Construct two cattle crossings on either A1 or A2 at The Bluffs. This would entail a total of six cattle crossings, in addition to road crossings which will double as cattle crossings.

IMPACTS TO STOCKWATERS

Options A1 and A2 will pass directly through the location of two water troughs that are accessed from more than one pasture. The trough at Map Reference M can be accessed from four pastures. The trough at Map Reference N can be accessed by two pastures. Option A1 will impact the service area of a trough at Map Reference O because it passes between the trough and the range on the north end of The Bluffs. Option A2 impacts the service area of a trough at Map Reference P because it passes between the trough and the south end of The Bluffs.

A1 and A2 will cross four pipelines, cutting off the water supply to stockwater troughs. See Figure 5.17.2 for details.

MITIGATION

Move the trough at Map Reference M to a new location at Map Reference F. Extend the pipeline from Map Reference N to Map Reference Q and install a new trough.

Install a pipeline crossing at each pipeline intersection. This would consist of a larger pipeline through which the existing pipeline could pass. Water must be kept flowing to troughs for livestock access.

IMPACTS TO FOUR CORNERS CORRAL

A1 and A2 will pass directly through the Four Corners Corral.

MITIGATION

Construct a new corral at Map Reference F. This will be in conjunction with the new trough.

IMPACTS TO COYOTE WASH

A1 and A2 will cross Coyote Wash at two places (Map References D1 and D2). This will disrupt water flow to water storage pits to the south.

MITIGATION

Install two culverts of sufficient size to accommodate peak flow. Water flow must not be disrupted during construction.

IMPACTS TO ROADS AND TRAILS

A1 and A2 will cross three roads at Map References R, I, and N, and four trails along the pipelines described above.

MITIGATION

Construct road crossings on each road with approaches not to exceed six percent grade. Construct trail crossings on each trail with approaches not to exceed twelve percent grade. This entails a total of three road crossings and four trail crossings.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is a risk of animal-train collisions with the right-of-way unfenced.

MITIGATION

The Permittee feels that fencing the right-of-way will create many more problems than it will solve. Based on his experience with cattle being killed within fenced right-of-ways, he is very opposed to fencing the railroad right-of-way.

5.17.8 Impacts and Mitigation With Fencing – A1 and A2

Fencing the A1 right-of-way will require 18.2 miles of fencing. Fencing the A2 right-of-way will require 17.5 miles of fencing. There is eight miles of existing fence that can be utilized as fencing on one side of the right-of-way.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The amount of forage loss cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

The Permittee proposes the extension of a pipeline for two miles at Map Reference B and two new troughs at Map References C1 and C2, to open grazing on otherwise unserviced range.

The Permittee is working with the BLM to combine this allotment with the Ely Springs Sheep Allotment into an intensive rotational grazing system that includes both allotments. The Permittee does not see the loss of forage in the right-of-way as a problem, and believes the intensive management system will produce sufficient forage to offset any forage loss caused by fencing the right-of-way.

IMPACTS TO EXISTING FENCE

The fenced right-of-way will impact only the entry and exit points of the railroad. The railroad and fenced right-of-way fencing will intersect the interior fences at right angles on each side of the right-of-way and will not leave openings for cattle to drift from one pasture to another.

MITIGATION

Install a railroad cattleguard and a cattleguard on the service road at the entry and exit points, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing the right-of-way will complicate cattle management within the allotment. The existing rotation system requires movement of cattle from pasture to pasture on a periodic basis. Fencing the A1 right-of-way will create a very small pasture without a water source at the north end of The Bluffs (Map Reference S). Fencing the A2 right-of-way will create a very small pasture without water at the south end of The Bluffs (Map Reference T).

MITIGATION

The same concept applies here as expressed in Section 5.17.5, *Impacts and Mitigation With Fencing – Common Segment,* but with six cattle crossings instead of five.

If the small pasture at Map Reference S (A1) is to be used for grazing, then it will be necessary to construct two underpasses instead of cattle crossings.

If the small pasture at Map Reference T (A2) is to be used for grazing then it will be necessary to construct two underpasses instead of cattle crossings.

IMPACTS TO STOCKWATERS

Impacts to stockwaters are the same as detailed in the *Without Fencing* alternative.

MITIGATION

Mitigation is the same as detailed in the *Without Fencing* alternative.

IMPACTS TO ROADS AND TRAILS

Impacts to roads and trails are the same as detailed in the *Without Fencing* alternative.

MITIGATION

Mitigation is the same as detailed in the *Without Fencing* alternative.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Installing gates in the right-of-way as discussed in the *Impacts to Livestock Movement* section will present a risk of animal-train collisions from the gates being left open and cattle getting into the right-of-way.

MITIGATION

No mitigation is suggested.

5.17.9 Cumulative Impacts

The Southern Nevada Water Authority is proposing to construct a 72-inch pipeline through Dry Lake and the Ely Springs Cattle Allotment. The pipeline may be buried, but the details are not yet known. The proposed pipeline and the Yucca Mt. Railroad will greatly impact the management facilities and overall operation of the Ely Springs Cattle Allotment.

Table 5.17.3 Ely Springs Cattle Allotment Impacted Features

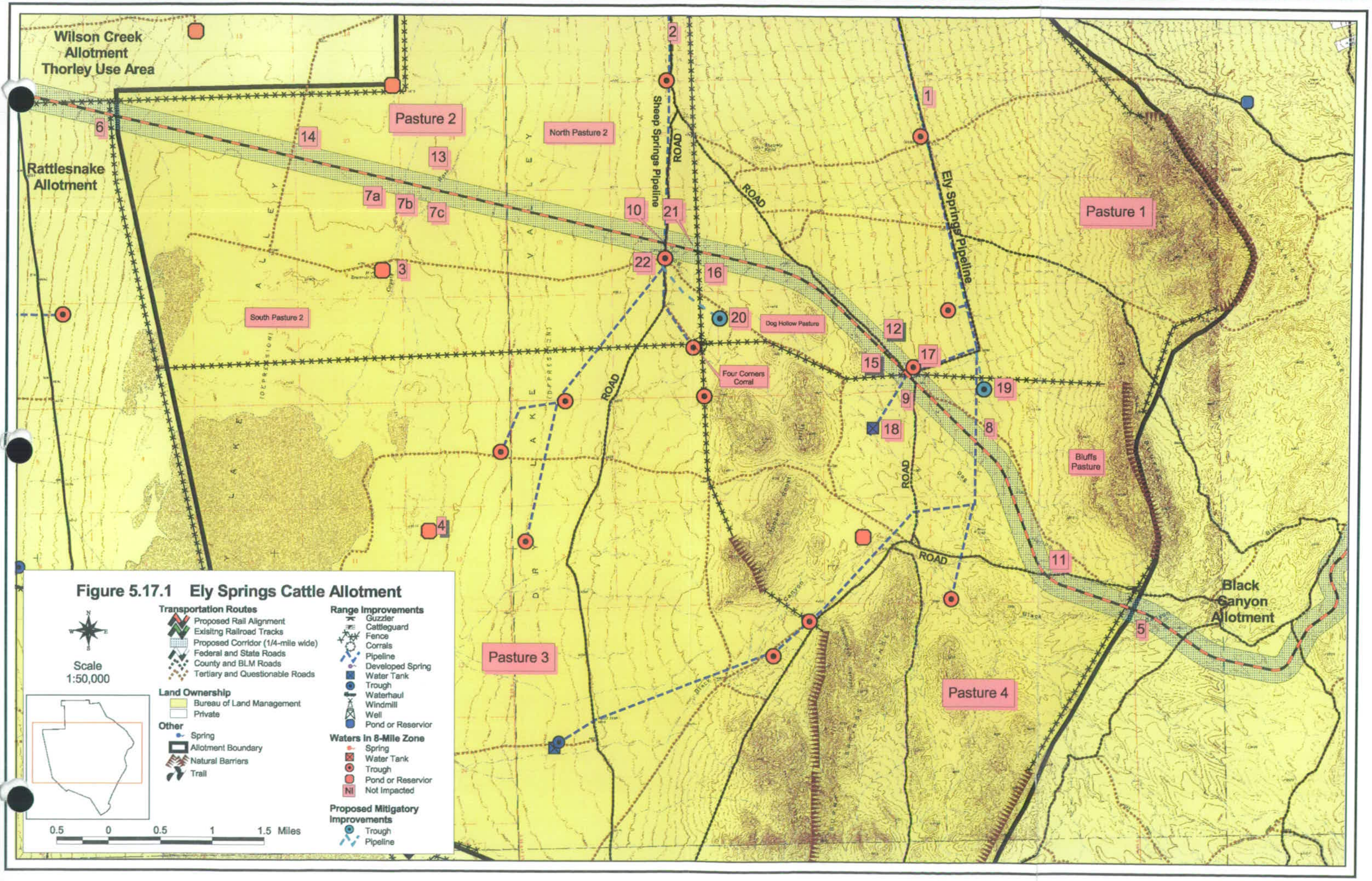
Permittee Fencing Preference: Without Fencing

Impacted Features	Common Segment	A1	A2
Stockwaters w/in 4 miles	12	12	12
Stockwaters w/in 1 mile	7	5	5
Fences (ea)	4	3	4
Roads (ea)	3	3	3
Trails (ea)	3	4	4
Pipelines (ea)	3	4	4
Other			

Table 5.17.4 Ely Springs Cattle Allotment Mitigation Project Comparison

Proposed Mitigation Units	Common Segment		A1		A2	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)		23		18.2		17.5
Gates (ea)	8	26	6	30	8	30
Railroad Cattleguards (ea)	4	2	3	2	4	2
Road Cattleguards (ea)	4	14	3	16	4	16
Road Crossings (ea)	3	3	3	3	3	3
Trail Crossings (ea)	3	3	4	4	4	4
Cattle Crossings (ea)	5	5	6	6	6	6
Sheep Crossings (ea)						
Pipeline Construction (mi)	2.5	2.5	5.5	5.5	5.5	5.5
Pipeline Crossings (ea)	3	3	4	4	4	4
Unspecified Stockwaters						
Troughs (ea)	3	3	2	2	2	2
Wells (ea)						
Springs (ea)						
Other						

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*


Wilson Creek Allotment Thorley Use Area
Rattlesnake Allotment
Pasture 2
North Pasture 2
South Pasture 2
Pasture 1
Pasture 3
Pasture 4
Dog Hollow Pasture
Bluffs Pasture
Four Corners Corral
Sheep Springs Pipeline
Ely Springs Pipeline
ROAD
Black Canyon Allotment
1
2
3
4
5
6
7a
7b
7c
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
Figure 5.17.1 Ely Springs Cattle Allotment
Scale 1:50,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
Waters in 8-Mile Zone
Spring
Water Tank
Trough
Pond or Reservior
NI Not Impacted
Proposed Mitigatory Improvements
Trough
Pipeline
0.5 0 0.5 1 1.5 Miles

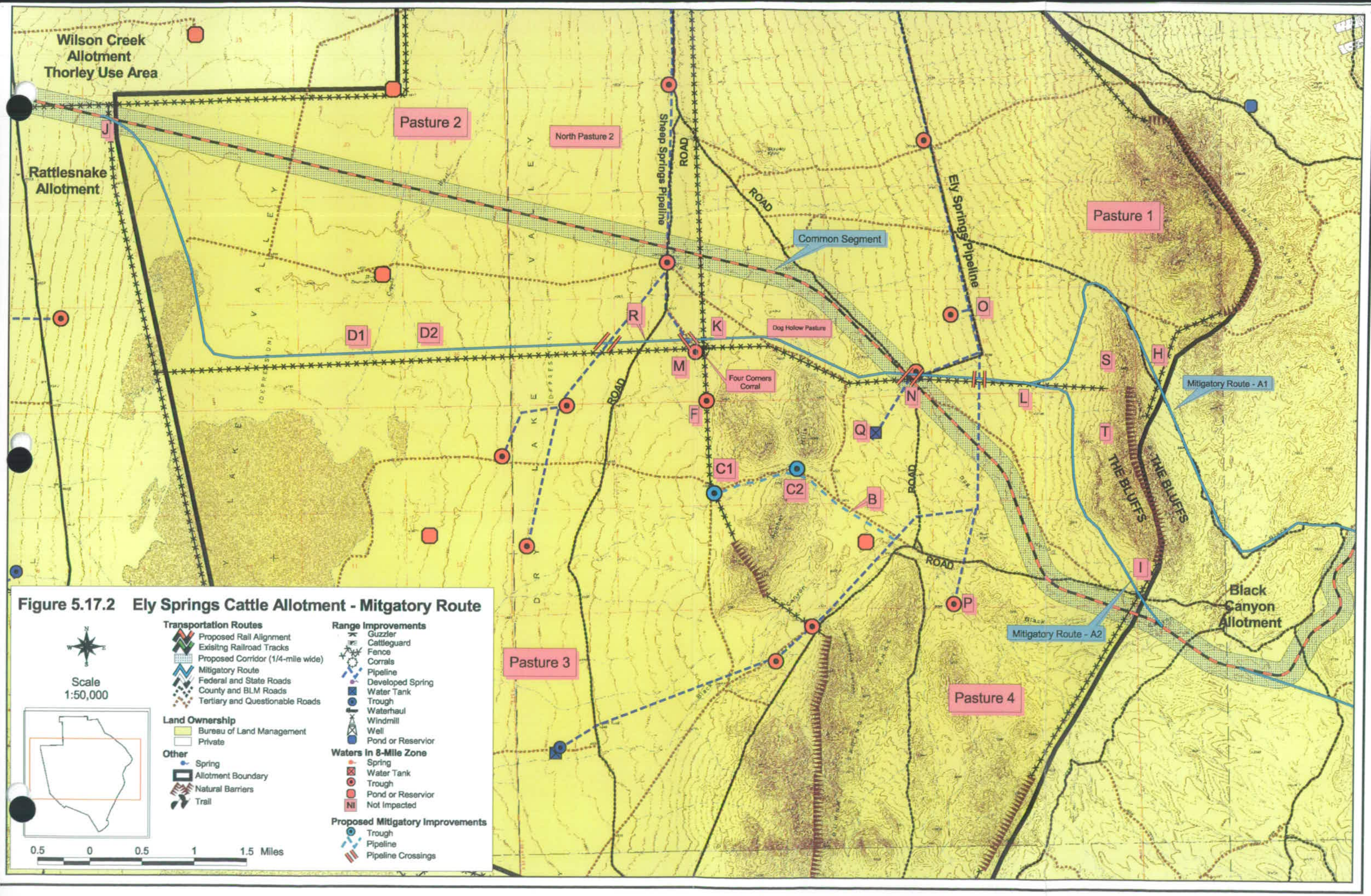
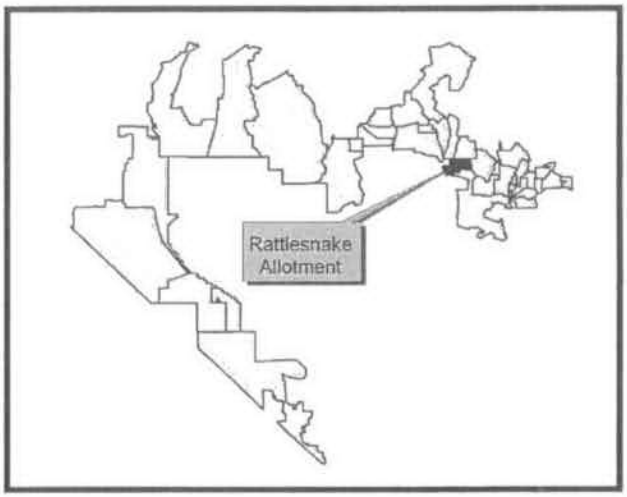


Figure 5.17.2 Ely Springs Cattle Allotment - Mitgatory Route

5.18 RATTLESNAKE ALLOTMENT

Permittee: Dean Carter and Sons
Contact: Dean Carter
Address: 188 South 200 West
Minersville, UT 84752



5.18.1 Existing Situation

Base Property: Water

ALLOTMENT DESCRIPTION

The north end of the Rattlesnake Allotment is located approximately 23 miles west of Panaca. The allotment is approximately eleven miles long east and west and about four to five miles wide north and south. The allotment is fenced on the east side at the common boundary with the Ely Springs Allotment, and on the north side at the common boundary with the Thorley Use Area up to the North Pahroc Range. There is no fence west of the North Pahroc Range at the common boundary with the Deadman Use Area. The west side of the allotment is unfenced, and the south side is fenced. See Tables 5.18.1 and 5.18.2, and Figure 5.18.1 for details of the allotment boundary.

Table 5.18.1 Rattlesnake Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
34,946		158 cattle	3-01 / 5-30	473	Common Segment	
		158 cattle	10-16 / 2-28	706	.98	25

Table 5.18.2 Rattlesnake Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
1,180	324	1,504

GRAZING SYSTEM

Cattle are free to move about the allotment at will. The Permittee reports that his cattle make almost no use west of the North Pahroc Range. The Pahroc Burn is a newly seeded and fenced area on the allotment. Once it is open this summer, it will probably be grazed yearly.

PASTURE DESIGN

The allotment has one division fence built to protect the Pahroc Burn on the eastern slope of the North Pahroc Range. The fence will be a permanent feature of the allotment and creates a second pasture.

STOCKWATER

The area east of the North Pahroc Range is watered by a pipeline fed by the Rattlesnake Spring and a tank located at Map Reference 1. At Map Reference 2 there is a tank fed by a pipeline coming into the allotment from the Wheatgrass Spring to the south.

ROADS AND TRAILS

The proposed track and service road will cross a main county road used for hauling cattle that crosses the east end of the allotment and enters the Thorley Use Area to the north (Map Reference 3). The exact location of the track crossing cannot be determined until the right-of-way is staked.

CORRAL AND LOADING FACILITY

There is a corral and loading facility just across the fence in the Thorley Use Area. The Rattlesnake Allotment Permittee uses this facility to load and unload cattle as they truck cattle in and out of the allotment (Map Reference 4).

5.18.2 Fencing Preference

The Permittee prefers that the proposed track and service road be fenced.

5.18.3 Proposed Railroad Alignment

The proposed track and service road will enter from the Ely Springs Allotment to the east, traveling less than one mile across the Rattlesnake Allotment before exiting into the Thorley Use Area to the north. Until the centerline of the right-of-way is staked it is difficult to tell how much land within the Rattlesnake Allotment will be impacted and covered by the right-of-way. It could be less than twenty acres, and will likely be less than eighty acres including the land north of the proposed right-of-way.

5.18.4 Impacts and Mitigation Without Fencing

IMPACTS TO VEGETATION AND FORAGE

Inside the 25 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCING

The proposed track and service road will cross a fence as it enters the allotment from the Ely Springs Allotment, and will cross a fence as it exits into the Thorley Use Area. The fence openings will allow cattle to wander out of the allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each fence opening.

IMPACTS TO STOCKWATERS

The proposed track and service road will impact the service areas of the stockwater sources only to a minor degree. The location of the proposed track and service road is within approximately two miles of the water tank located at Map Reference 5.

MITIGATION

The proposed track and service road cross a corner of the allotment. The area cut off by the track will be less than eighty acres. No mitigation is suggested.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross the existing road used to haul cattle to the Thorley Use Area. The exact crossing location cannot be determined until the right-of-way is staked (Map Reference 3).

MITIGATION

Construct a road crossing with approaches not to exceed six percent grade.

IMPACTS TO THE CORRAL AND LOADING FACILITY

The proposed track and service road will run directly through the corral and loading facility located in the Thorley Use Area, used by the Permittee for the Rattlesnake Allotment (Map Reference 4). Even if there is a new corral and loading facility constructed in the Thorley Use Area it will be inconvenient for the Rattlesnake Allotment Permittee to access.

MITIGATION

Construct a new corral and loading facility within the Rattlesnake Allotment, with the location to be determined through coordination with the Permittee and the BLM.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is a risk of cattle congregating in the corner separated from the rest of the allotment by the railroad.

MITIGATION

Fence the right-of-way. The Permittee feels that the risk is sufficient to warrant fencing.

5.18.5 Impacts and Mitigation With Fencing

Fencing the right-of-way will require two miles of fence on both sides of the right-of-way. It is difficult to determine the actual distance of track within the allotment until the right-of-way is staked.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCING

The proposed track and service road will cross one fence as it enters the allotment from the Ely Springs Allotment, and one fence as it exits the allotment into the Thorley Use Area, creating an alleyway from the Ely Springs Allotment to the Thorley Use Area.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each fence crossing, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

There is a chance that some cattle may be trapped within the fenced right-of-way, increasing the risk of being hit by trains, and effectively shut off from water.

MITIGATION

Install a twelve-foot heavy gauge steel gate hinged on ten-inch well casings set in concrete, on each side of the track, allowing removal of cattle from the right-of-way. The Permittee should chain and padlock the gate to prevent the gates being left open.

IMPACTS TO ROADS

The proposed track and service road will cross the existing road used to haul cattle to the Thorley Use Area. The exact crossing location cannot be determined until the right-of-way is staked.

MITIGATION

Construct a road crossing with approaches not to exceed six percent grade, with a road cattleguard to be placed on each side of the right-of-way.

IMPACTS TO THE CORRAL AND LOADING FACILITY

The proposed track and service road will run directly through the current corral and loading facility located in the Thorley Use Area, making access difficult for the Permittee of the Rattlesnake Allotment (Map Reference 4). Even if there is a new corral and loading facility constructed in the Thorley Use Area it will be inconvenient for the Rattlesnake Allotment Permittee to access.

MITIGATION

Construct a new corral and loading facility in the Rattlesnake Allotment, with the location to be determined through cooperation with the Permittee and the BLM.

Table 5.18.3 Rattlesnake Allotment Impacted Features

Permittee Fencing Preference: With Fencing

Impacted Features	Common Segment
Stockwaters w/in 4 miles	2
Stockwaters w/in 1 mile	0
Fences (ea)	2
Roads (ea)	1
Trails (ea)	
Pipelines (ea)	
Other	

Table 5.18.4 Rattlesnake Allotment Mitigation Project Comparison

Proposed Mitigation Units	Common Segment	
	Without Fencing	With Fencing
Fence (mi)		2
Gates (ea)		2
Railroad Cattleguards (ea)	2	2
Road Cattleguards (ea)	2	3
Road Crossings (ea)	1	1
Trail Crossings (ea)		
Cattle Crossings (ea)		
Sheep Crossings (ea)		
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Corral and Chute	1	1
Unspecified Stockwaters		
Troughs (ea)		
Wells (ea)		
Springs (ea)		
Other		

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

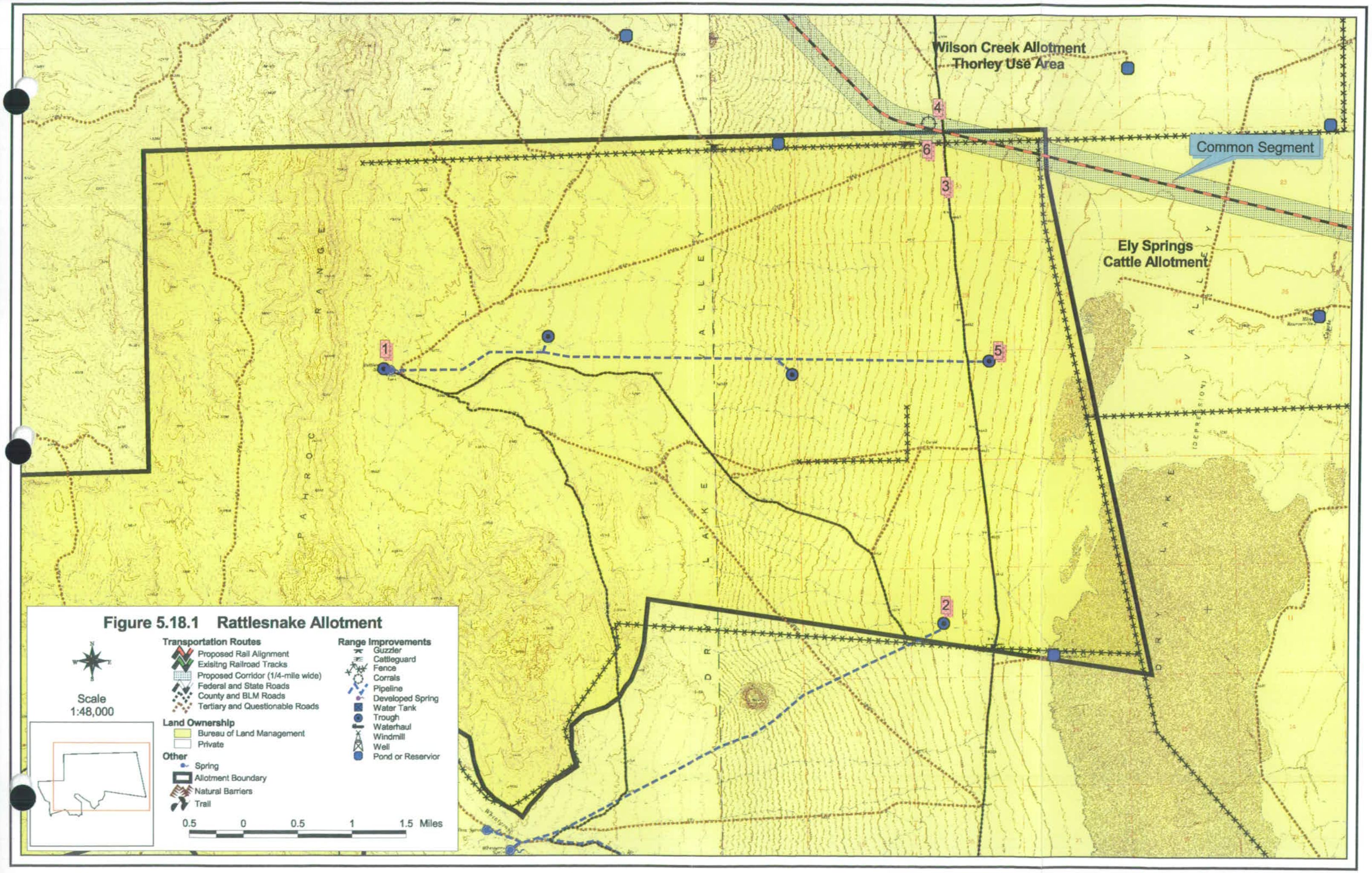
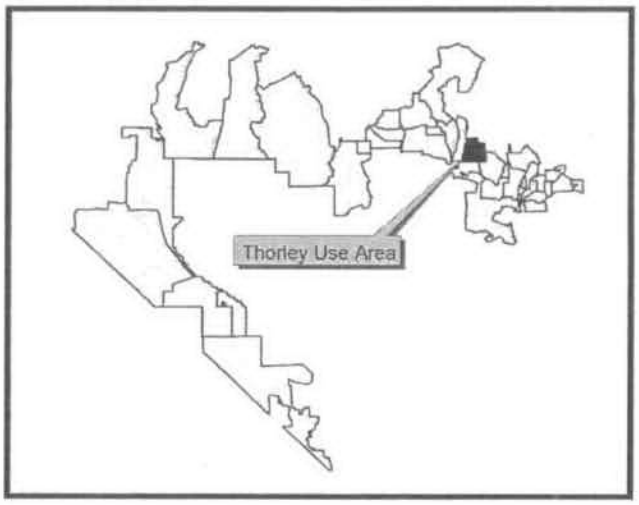


Figure 5.18.1 Rattlesnake Allotment

5.19 THORLEY USE AREA – WILSON CREEK ALLOTMENT

Permittee: Bulloch Bros.
Contact: Matt Bulloch
Address: 897 North 4500 West
West Cedar City, UT 84720



5.19.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Thorley Use Area is located twenty miles west of Pioche. It is part of the Wilson Creek Allotment. The Thorley Use Area is approximately 8.5 miles long east and west and approximately eight miles wide north and south. The east half is on the Dry Lake Valley Depression, with the west end extending up hills that lead to the ridgetop of the North Pahroc Range. The northwest corner of the allotment is characterized by very rough rangeland (Map Reference 1).

There is no fence between the Thorley Use Area and the Deadman Use Area on the west side, or the use area to the north. There is a BLM fence approved for construction that would fence the Thorley Use Area from the rest of the Wilson Creek Allotment. This fence would run across the north end of the Use Area. See Tables 5.19.1 and 5.19.2, and Figure 5.19.1 for details of the Thorley Use Area boundary.

Table 5.19.1 Thorley Use Area Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	Private	Number/Type of Livestock	Season of Use	Total AUM	Miles	ROW Acres
40,519	None	181 cattle	3-01 / 5-15	452	Common Segment	
		181 cattle	10-15 / 2-28	815	6.64	166

Table 5.19.2 Thorley Use Area Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
1,271	529	1,800

GRAZING SYSTEM

Spring and winter use, with cattle free to roam at will. Cattle are free to graze at will throughout the Use Area. The east half of the Use Area is in Dry Lake Valley. At the present time Bulloch's cattle concentrate in the area of the Black Rock Spring, Deadman Spring, Coal Spring, Hamilton Spring, and a water tank, all referenced in *Stockwater Design*.

Presently the cattle drift from that portion of the Wilson Creek Complex located north of the Thorley Use Area onto the Dry Lake Flat area of the Thorley Use Area. Large numbers of wild

horses also utilize the Dry Lake Flat. Mr. Bulloch wants to pipe water into the area west of the mountain in the northwest corner of the Thorley Use Area (Map Reference 1). However, if he does it will concentrate more outside cattle and wild horses onto the flat.

The area west of the mountain (Map Reference 1) and Dry Lake Valley have good patches of white sage and greasewood, which Mr. Bulloch is not getting full use of because of drift cattle and wild horses.

PASTURE DESIGN

The Thorley Use Area is not fenced into pastures.

STOCKWATER DESIGN

At the present time the Use Area is watered by the following sources near the track and service road route:

1. A tank at Map Reference 2, fed by an old pipeline from the Black Rock Spring. (Map Reference 3). The spring supplies water for hauling when needed.
2. Ponds at Map References 4-9.
3. A water tank at Deadman Spring (Map Reference 10). This spring provides water for hauling when needed.
4. Coal Spring at Map Reference 11.
5. Hamilton Spring at Map Reference 12.

5.19.2 Fencing Preference

The Permittee does not want the proposed track and service road fenced.

5.19.3 Proposed Railroad Alignment

The proposed railroad track and associated service road will enter the use area on the south side from the Rattlesnake Allotment (Map Reference 13), and exit into the Deadman Use Area to the west (Map Reference 14).

5.19.4 Impacts and Mitigation Without Fencing

IMPACTS TO VEGETATION AND FORAGE

Inside the 166 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCING

The proposed track and service road will cross a fence upon entering the Thorley Use Area (Map Reference 13). This will leave an opening in the fence for cattle to enter or exit the allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road where the track crosses the fenceline, for a total of one railroad cattleguard and one road cattleguard.

IMPACTS TO STOCKWATERS

The track and service road will fall within the service area of the following water sources: Black Rock, Deadman, Coal, and Hamilton Springs. These springs are presently an area of concentrated cattle and wild horse use. There is a potential impact of the aquifer being closed off from blasting close to springs during construction.

The proposed track and service road will cut across one pipeline at Map Reference 23, cutting off the water supply.

MITIGATION

Place a pipe larger than the existing pipeline under the track and service road so the existing pipeline can be fed through it (Map Reference 23). The Permittee agrees that the pipeline flow can be disrupted from June 1 to October 1, but not from October 1 to May 1 because that period of time is the season of use for the allotment.

The Permittee proposes three actions to mitigate the above impacts:

Mitigation 1:

- Replace the old pipeline from the Black Rock Spring with a new pipeline between Map Reference 3 and Map Reference 6.
- Add six miles of pipeline to the troughs at Map References 15 and 16.
- Pick up water from the Deadman Spring to add to the system with another mile of pipeline from Map Reference 10 to Map Reference 17.

Total: 9.5 miles of pipeline.

The Contractor will need to use only light charges when blasting close to springs.

Mitigation 2:

- Pick up water from Coal Springs at Map Reference 11 and Hamilton Springs at Map Reference 12, and run it through a pipeline that would go to the west of the mountain to new troughs at Map References 17 and 18.

Total: 3.5 miles of pipeline

Mitigation 3:

- Construct a fence across the north end of the Thorley Use Area. This fence has been approved by the BLM and will be constructed whether or not the proposed track is constructed, as a separate project from the railroad project. The fence will keep outside animals from concentrating on the Dry Lake Valley and will open new use for the Permittee.

IMPACTS TO LIVESTOCK MOVEMENT

The proposed track and service road will impede the movement of cattle from one side of the railroad to the other.

MITIGATION

Construct eight cattle crossings consisting of earth ramps with approaches not to exceed 25 percent grade, spaced approximately one mile apart along the track. The Permittee will determine the exact locations after the track is staked.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross three roads that may be used for hauling water or cattle (Map References 19-21).

MITIGATION

Construct road crossings on all three roads, with approaches not to exceed six percent grade. These road crossings can also be used as cattle crossings.

IMPACTS TO CORRAL

If the proposed track and service road are located as shown they will go directly through a corral (Map Reference 22).

MITIGATION

Construct a new corral north of the present location to mitigate the loss of the existing corral. The Permittee and BLM will determine the new location after the centerline of the proposed track has been staked.

5.19.5 Impacts and Mitigation With Fencing

Fencing the right-of-way will require fifteen miles of fence.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing the right-of-way will create a definite barrier to cattle movement across the allotment, creating two separate pastures labeled the Big Pasture and the Little Pasture on Figure 5-19.

MITIGATION

Following are five possible mitigation options:

1. Construct the cattle crossings described in the *Without Fencing* alternative, and add a set of opposing gates at each cattle crossing. The gates should be sixteen-foot heavy steel, hinged on ten-inch well casings set in concrete. The Permittee could open and lock the gates as necessary for cattle movement across the allotment, eliminating the possibility of someone else leaving the gates open.

2. Underpasses instead of cattle crossings/gates. Underpasses with service road cattleguards would allow cattle to cross over the service road and under the track. Each underpass would require two road cattleguards.
3. A combination of cattle crossings/gates and underpasses. The amount of cut and fill for the railroad will determine where underpasses are suitable.

The actual locations of cattle crossings/gates or underpasses will be decided by the Permittee after the right-of-way is staked.

IMPACTS TO ROADS AND TRAILS

The track will cross three roads (Map References 19, 20, 23). The roads will be cut off if the right-of-way is fenced.

MITIGATION

Install a road cattleguard on each side of the right-of-way at each place where the track crosses a road, for a total of six road cattleguards. These road crossings can be used as cattle crossings, with the installation of gates in the fence on each side of the right-of-way.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Fencing the right-of-way will result in open ends at the railroad entry and exit point of the allotment, if the fencing does not continue from one allotment to the next. This will leave openings where cattle from the Rattlesnake Allotment can get into the right-of-way at Map Reference 13, and cattle from the Deadman Use Area and the Thorley Use Area can get into the right-of-way at Map Reference 14, increasing the risk of collision and death.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at Map References 13 and 14, for a total of two road cattleguards and two railroad cattleguards.

5.19.6 Other Impacts and Mitigation

Impacts and mitigation for pipelines, the existing corral, and existing fencing are the same as discussed in the *Without Fencing* alternative.

The Permittee believes a better route for the railroad would be from Las Vegas and then up the west side of the Nevada Test Site to Yucca Mountain. The railroad as proposed would pass through several population centers before it reaches the route that goes north of Nellis Air Force Base.

Table 5.19.3 Thorley Use Area Impacted Features

Permittee Fencing Preference: Without Fencing

Impacted Features	Common Segment
Stockwaters w/in 4 miles	10
Stockwaters w/in 1 mile	6
Fences (ea)	1
Roads (ea)	3
Trails (ea)	
Pipelines (ea)	1
Other	

Table 5.19.4 Thorley Use Area Allotment Mitigation Project Comparison

Proposed Mitigation Units	Common Segment	
	Without Fencing	With Fencing
Fence (mi)		13.8
Gates (ea)		26
Railroad Cattleguards (ea)	1	2
Road Cattleguards (ea)	1	24
Road Crossings (ea)	3	3
Trail Crossings (ea)		
Cattle Crossings (ea)	8	8
Sheep Crossings (ea)		
Pipeline Construction (mi)	12.5	0
Pipeline Crossings (ea)	1	1
Unspecified Stockwaters		
Troughs (ea)	5	5
Wells (ea)		
Springs (ea)		
Other		

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

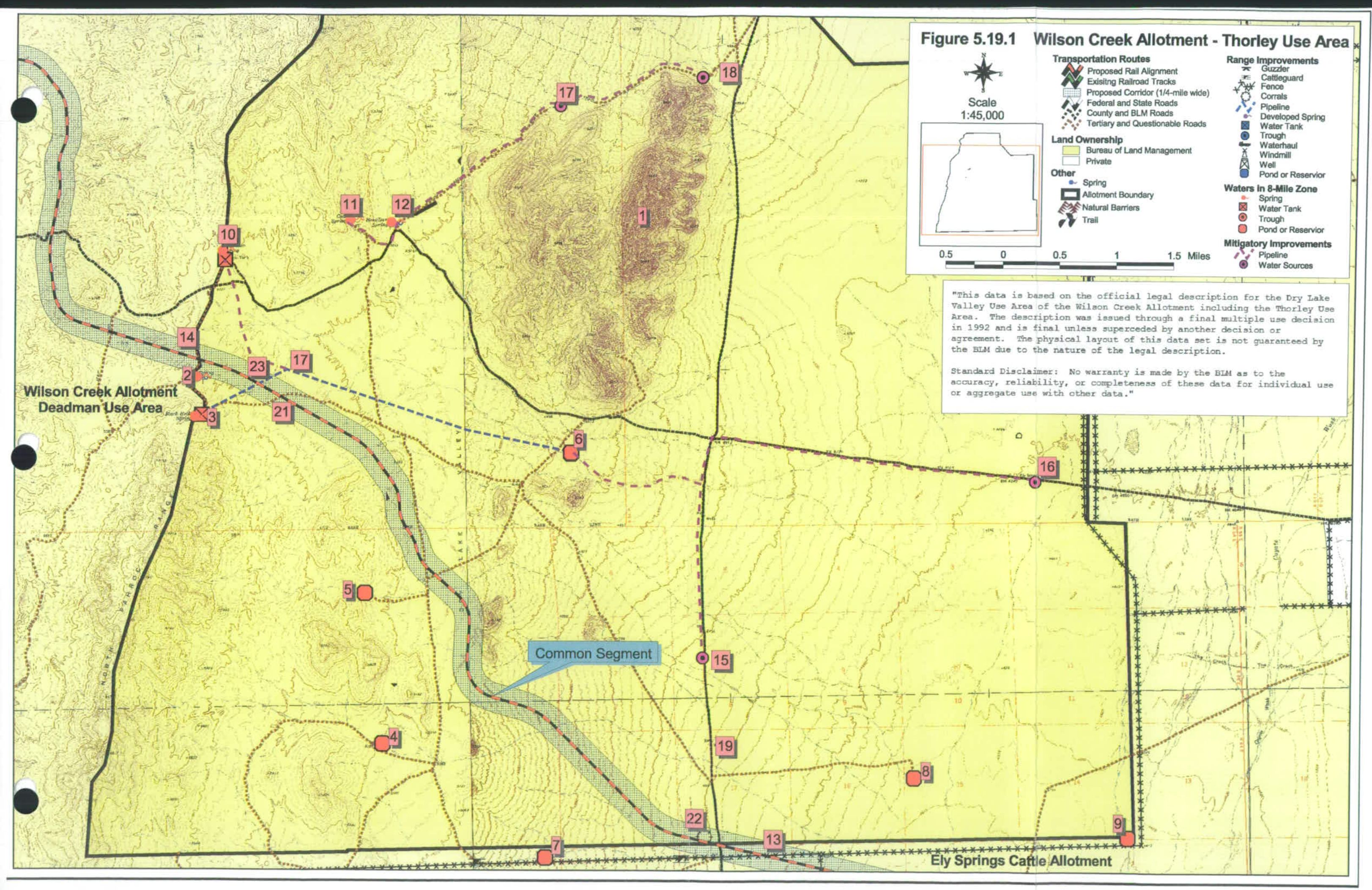
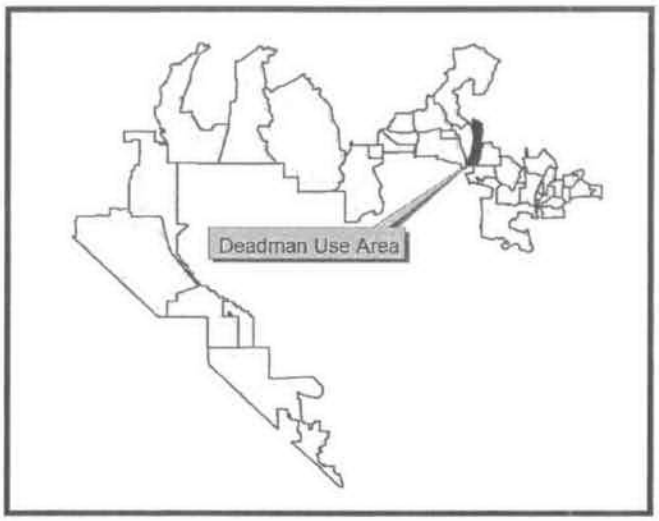


Figure 5.19.1 Wilson Creek Allotment - Thorley Use Area
Scale
1:45,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
Waters In 8-Mile Zone
Spring
Water Tank
Trough
Pond or Reservior
Mitigatory Improvements
Pipeline
Water Sources
0.5 0 0.5 1 1.5 Miles
"This data is based on the official legal description for the Dry Lake Valley Use Area of the Wilson Creek Allotment including the Thorley Use Area. The description was issued through a final multiple use decision in 1992 and is final unless superceded by another decision or agreement. The physical layout of this data set is not guaranteed by the BLM due to the nature of the legal description.
Standard Disclaimer: No warranty is made by the BLM as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data."
Wilson Creek Allotment
Deadman Use Area
Common Segment
Ely Springs Cattle Allotment
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
21
22
23

5.20 DEADMAN USE AREA – WILSON CREEK ALLOTMENT

Permittee 1: Blue Diamond Oil Corporation
Contact: Gary Sprouse
Address: Box 150432
Ely, NV 89315

Permittee 2: El Tejon Cattle Company
Contact: Melchor Gragirena
Address: 34741 Seventh Street
Bakersfield, CA 93308



5.20.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Deadman Use Area is part of the Wilson Creek Allotment, located east of State Route 318 and about 28 miles north of Hiko. The use area is approximately sixteen miles long north and south, and about three to four miles wide east and west. The east boundary is the ridgetop of the North Pahroc Range. The White River Valley is located along the west side of the allotment next to State Route 318. State Route 318 is fenced on both sides, however the other allotment boundaries are not fenced. See Tables 5.20.1 and 5.20.2, and Figure 5.20.1 for details of the use area and railroad route.

Table 5.20.1 Deadman Use Area Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT				TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**		**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
42,373		Blue Diamond Oil Company	106 cattle	3-01 / 3-31	314	WR2	
				1-01 / 2-28		8.47	212
			1391 sheep	3-01 / 4-10	1473	WR1	
				11-01 / 2-28	**Total -1687**	11.28	828
		El Tejon Cattle Company	897 sheep	12-01 / 2-15	445	Mitigatory Route	
						10.73	268

Table 5.20.2 Deadman Use Area Permitted Use AUMs

	ACTIVE	SUSPENDED	TOTAL
Blue Diamond	1,787	823	2,610
El Tejon	445	0	445
Total	1,232	823	3,055

GRAZING SYSTEM

Blue Diamond Oil Company is permitted for winter and spring use with cattle and sheep. El Tejon Cattle Company is permitted for winter use with sheep.

STOCKWATER DESIGN

Stockwater is partly supplied by seasonal winter and spring runoff. Water hauling is the primary source of water on the allotment. Other water sources consist of the following:

- One dirt pond at Map Reference 1.
- A pipeline coming from a spring in the Timber Mountain Allotment under State Route 318 fills a storage tank in the Deadman Use Area (Map Reference 2). Water is hauled from this tank to various locations in the allotment. (Note: The location of the tank may not be detailed accurately on Figure 5.20.1).
- Deadman Spring (Map Reference 3) is located on the common boundary with the Thorley Use Area. The service area of this water source will be impacted due to the track passing within one mile of the spring.
- Black Rock Spring (Map Reference 11) is located on the common boundary with the Thorley Use Area. The service area of this water source will be impacted due to the track passing within .5 mile of the spring.

GRAZING AND LIVESTOCK MOVEMENT

Livestock distribution is controlled by water hauling and by taking advantage of seasonal precipitation. Sheep are herded throughout the Use Area and watered as mentioned.

5.20.2 Fencing Preference

Both Permittees prefer that the railroad right-of-way be fenced to reduce the risk of livestock death caused by train collisions.

5.20.3 Proposed Railroad Route

The railroad and service road will enter the Deadman Use Area about 4.5 miles from the southeast corner of the allotment, and pass over the ridge of the North Pahroc Range. It will travel northwest and cross over State Route 318 as it exits the allotment into the Timber Mountain Allotment. The track splits into different routes at the dirt pond at Map Reference 1, and is labeled White River 1 (WR1) and White River 2 (WR2) at that point. For the purposes of this report both track routes are analyzed.

The Permittees have suggested a new alignment for the railroad, labeled Mitigatory Route on Figure 5.20.1. This route would travel further west than currently proposed, to meet the allotment boundary and State Route 318, then trend north and tie into WR1 or WR2, whichever route is selected.

5.20.4 Impacts and Mitigation Without Fence – WR1

IMPACTS TO VEGETATION AND FORAGE

Inside the 282 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the

areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

The track and service road will pass through highly productive stands of white sage, an important forage plant in the area.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

It is suggested that an unspecified water source be developed in the south end of the use area to offset forage loss from construction activities by opening up new use areas for grazing.

IMPACTS TO EXISTING FENCE

WR1 will cross a fence as it exits the allotment, regardless of the point of exit. The current proposed point of exit is at Map Reference 5.

MITIGATION

Install a railroad cattleguard and a service road cattleguard. The actual exit point will change if an alternate alignment is chosen.

IMPACTS TO LIVESTOCK MOVEMENT

WR1 as proposed will pass near the dirt tank at Map Reference 1, creating the following impacts:

1. Heavy use of the forage along the right-of-way.
2. Impeded livestock movement to the hills to the east, causing concentrated use and potential deterioration of the white sage flat.

MITIGATION

Mitigation will entail constructing six sheep crossings consisting of earthen ramps 100 feet wide with approaches not to exceed 25 percent grade.

An alternative route is proposed, to travel adjacent to the east side of State Route 318 (Map Reference 4). The alternative route would travel along the western edge of the white sage flat. Both Permittees are in agreement with the concept of moving the proposed alignment.

IMPACTS TO ROADS AND TRAILS

WR1 and service road will cross a road as it passes over the North Pahroc Range (Map Reference 6), and other roads at Map References 7-10. All five of these roads may be used for hauling water within the allotment. If an alternate alignment is chosen the roads affected will change depending on the route chosen.

MITIGATION

Construct road crossings with approaches not to exceed six percent grade. All routes of travel may also be used to haul water. Modify the crossings by widening them to 100 feet wide to accommodate sheep.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is a risk of livestock getting on the track and being hit by a train, especially in the area of Map Reference 1.

MITIGATION

Both Permittees feel very strongly that the risk of livestock being killed on the track is sufficient to warrant fencing the right-of-way. Suggested mitigation is to fence the right-of-way.

5.20.5 Impacts and Mitigation With Fence – WR1

Fencing WR1 will require 22.5 miles of fencing. There is no guarantee that livestock will not get on the track even with fencing. This is true especially as the fence ages. Once the fence reaches a certain level of deterioration, it no longer is a viable livestock containment system because of gaps and holes.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

It is suggested that an unspecified water source be developed in the south end of the use area to offset forage loss from construction activities by opening up new use areas for grazing.

IMPACTS TO EXISTING FENCE

The railroad right-of-way will cross a fence as it exits the allotment and crosses State Route 318 (Map Reference 5), leaving an opening in the fence. Where the railroad enters from the Thorley Use Area (Map Reference 14) there is no fence.

MITIGATION

Place a railroad cattleguard and a road cattleguard on the service road at Map Reference 5. A cattleguard is also necessary at Map Reference 14 to keep livestock from entering the right-of-way in the event that the Thorley Use Area is not fenced.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing WR1 will cause the following impacts:

1. Blocked livestock movement over the right-of-way.
2. Concentrated livestock use west of the track on the white sage flat.
3. Necessitate hauling water to the part of the allotment cut off by the right-of-way, since the closest water source will be on the west side of the track.
4. Concentrated livestock use where water is hauled east of the track, and concentrated use along the right-of-way.

MITIGATION

The Permittees prefer underpasses, which could be used if feasible and sheep could be persuaded to move through them. The DOE, BLM, and the Permittees need to meet onsite and determine if overcrossings or underpasses are more appropriate in the event the right-of-way is fenced. In the meantime, six sheep crossings are included in the Mitigation Summary Table with the intent that they could be overcrossings or underpasses. Overcrossings will need to be 100 feet wide to accommodate sheep.

With fencing, the issue of moving the track adjacent to State Route 318 becomes critical, as discussed under the *Without Fencing* analysis. Possible locations will need to be determined on site. Both Permittees are in agreement with the concept of moving the proposed

alignment, but have not looked at the alternative location. The exit location could be in one of several locations as it crosses State Route 318. How it will tie into the three proposed track options in the Timber Mountain Allotment is still to be determined.

There is no way to fully mitigate the impacts of WR1. As currently proposed it will remain an impediment to livestock movement, even with underpasses.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross five roads used for hauling water.

MITIGATION

Construct a vehicle road crossing on each of the roads with approaches not to exceed six percent grade. Install a road cattleguard on each side of the right-of-way (Map References 6-10). This mitigation will entail a total of five road crossings and ten road cattleguards. The crossings should be constructed 100 feet wide to serve as sheep crossings as well.

5.20.6 Impacts and Mitigation Without Fence – WR2

WR2 presents the same issues as WR1 in that it passes almost directly over the pond at Map Reference 1, however the overall impacts from WR2 are less severe than those from WR1. WR2 will segregate a strip of the flat to the south of the pond at Map Reference 1 from the rest of the allotment.

As with WR1, the best mitigation is to move the alignment of WR2 adjacent to State Route 318 so that the track does not separate the flat from the rest of the allotment. The present proposed alignment will require construction of a number of sheep crossings. Before the centerline of the track is staked it is essential that all parties meet to choose the best route for the track. The Timber Mountain track alignment should be considered at the same time.

The WR2 impacts and mitigation are the same as those detailed under WR1 *Without Fencing* except as follows.

IMPACTS TO VEGETATION AND FORAGE

Inside the 212 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO LIVESTOCK MOVEMENT

As it approaches State Route 318 WR2 leaves a strip of land .25 to .5 mile wide between the highway and the track. This strip of range will be cut off from use. There will be a concentration of livestock use along the track as animals will water at Map Reference 1 and graze along the east side of the track.

MITIGATION

Construct six sheep crossings located one mile apart between road crossings along the track, consisting of earthen ramps 100 feet wide with approaches not to exceed 25 percent grade. Here, as with WR1, the best mitigation is to move the track alignment adjacent to State Route 318. See the discussion under the WR1 section.

5.20.7 Impacts and Mitigation With Fencing – WR2

Impacts and mitigation are the same as those detailed under WR1 *With Fencing* except as follows.

IMPACTS TO LIVESTOCK MOVEMENT

If the right-of-way is fenced it will become a definite barrier to livestock movement. The pond at Map Reference 1 will be on the east side of the track, but still immediately adjacent thereto.

MITIGATION

Mitigation is the same as that detailed under WR1 *With Fencing.*

IMPACTS TO ROADS AND TRAILS

WR2 will cross three roads (Map References 6, 7, 13).

MITIGATION

Construct three road crossings with approaches not to exceed six percent grade. Each road crossing will require a road cattleguard on each side of the right-of-way, for a total of three road crossings and six road cattleguards. Modify the crossings by widening them to 100 feet to accommodate sheep.

5.20.8 Impacts and Mitigation Without Fence – Mitigatory Route

This route would be adjacent to the east side of State Route 318.

IMPACTS TO VEGETATION AND FORAGE

Inside the 268 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

Develop an unspecified water source in the south end of the Deadman Use Area to open portions of the use are that receive little use currently.

IMPACTS TO EXISTING FENCE

The mitigatory route will pass through a fence as it exits the use area across State Route 318., leaving an opening for livestock to enter the right-of-way.

MITIGATION

Install a railroad cattleguard on the track and a road cattleguard on the service road.

IMPACTS TO LIVESTOCK MOVEMENT

The track and service road will impede the movement of livestock to the far south end of the use area.

MITIGATION

Construct eleven sheep crossings, either overcrossings or underpasses, to be determined by the amount of cut and fill for the railroad pad. Five of the crossings can be in conjunction with road crossings.

IMPACTS TO STOCKWATERS

This route will have little impact on the stockwater source at Map Reference 1, as the service area is already restricted by the highway.

MITIGATION

Develop an unspecified water source in the south end of the use area to draw livestock out of the general area of the railroad.

IMPACTS TO ROADS AND TRAILS

The mitigatory route will cross five roads that may be used for hauling water. Construction of the railroad will disrupt traffic.

MITIGATION

Construct a road crossing at each road/railroad intersection with approaches not to exceed six percent grade. The crossings should be modified to 100 feet in width to double as sheep crossings.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Leaving the right-of-way unfenced increases the risk of animal-train collisions.

MITIGATION

Both Permittees feel the risk of livestock death from collisions is sufficient to warrant fencing the right-of-way.

5.20.9 Impacts and Mitigation With Fencing – Mitigatory Route

IMPACTS TO VEGETATION AND FORAGE

Impacts to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCING

The right-of-way fencing will leave an opening as it intersects the State Route 318 fence, as well as where it the railroad enters the Deadman Use Area from the Thorley Use Area, increasing the risk that livestock may become trapped in the right-of-way.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at both openings

IMPACTS TO LIVESTOCK MOVEMENT

Fencing the right-of-way will create a barrier to livestock movement across the use area.

MITIGATION

Install a set of gates on each side of the right-of-way in conjunction with sheep crossings, for a total of 22 gates.

If the fencing option is selected, it may be more desirable to construct underpasses rather than overcrossing-type livestock crossings. It may be difficult to move a band of sheep through gates to cross from one side of the use are to the other.

IMPACTS TO STOCKWATERS

Same as detailed under the *Without Fencing* alternative.

MITIGATION

Same as detailed under the *Without Fencing* alternative.

IMPACTS TO ROADS AND TRAILS

The Mitigatory Route will cross five roads as it traverses the use area.

MITIGATION

Install a road cattleguard on each side of the right-of-way at each road crossing detailed under the *Without Fencing* alternative.

5.20.10 Other Concerns

The Mitigatory Route (See Figure 5.20.1) would significantly reduce the impacts to the Deadman Use Area, and thus reduce the necessary mitigation. The route would reduce the number of road and sheep crossings to two each. It clearly will reduce the disruption to livestock movement and watering along the white sage flat and the pond at Map Reference 1. The mitigatory route also minimizes the loss of vegetation and forage in the white sage flat along State Route 318. This route would only have to be fenced on one side, for 5.5 miles where it would be aligned adjacent to State Route 318.

The Mitigatory Route requires a small realignment, but this route is a more sensible option. The route is feasible and should be given serious consideration.

It is extremely important that the BLM, DOE, and Permittees meet onsite to select the most appropriate location for the Mitigatory Route, including the location of entry into the Timber Mountain Allotment.

Table 5.20.3 Deadman Use Area Impacted Features

Permittee Fencing Preference: With Fencing

Impacted Features	WR1	WR2	Mitigatory Route
Stockwaters w/in 4 miles	2	2	2
Stockwaters w/in 1 mile	2	2	2
Fences (ea)	1	1	1
Roads (ea)	5	3	2
Trails (ea)			
Pipelines (ea)			
Other			

Table 5.20.4 Deadman Use Area Mitigation Project Comparison

Proposed Mitigation Units	WR1		WR2		Mitigatory Route	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)		22.5		16.9		16.0
Gates (ea)		26		22		12
Railroad Cattleguards (ea)	1	2	1	2	1	2
Road Cattleguards (ea)	1	12	1	8	1	14
Road Crossings (ea)	5	5	3	3	2	2
Trail Crossings (ea)						
Cattle Crossings (ea)						
Sheep Crossings (ea)	6	6	6	6	2	2
Pipeline Construction (mi)						
Pipeline Crossings (ea)						
Unspecified Stockwaters	1	1	1	1	1	1
Troughs (ea)						
Wells (ea)						
Springs (ea)						
Other						

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

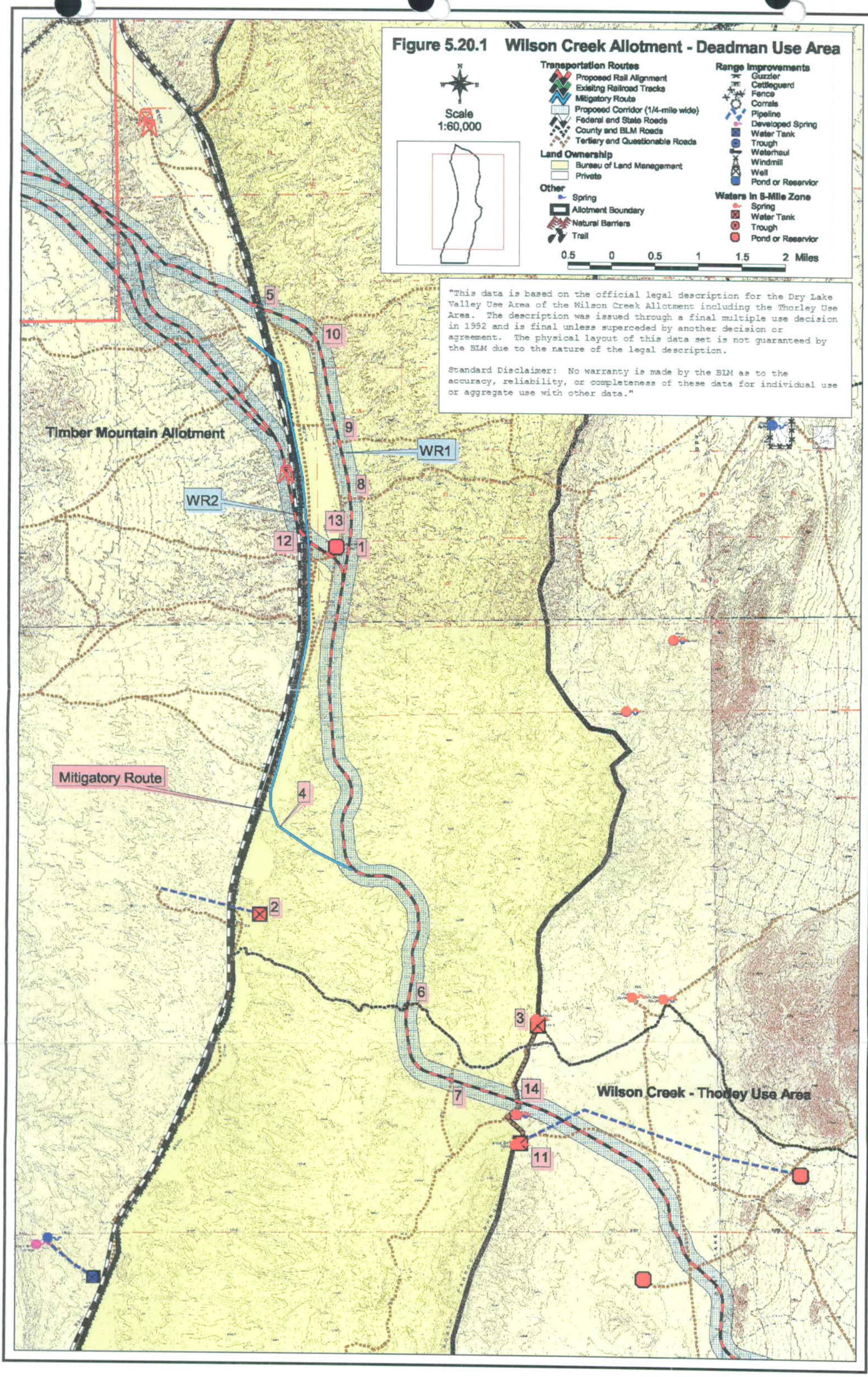
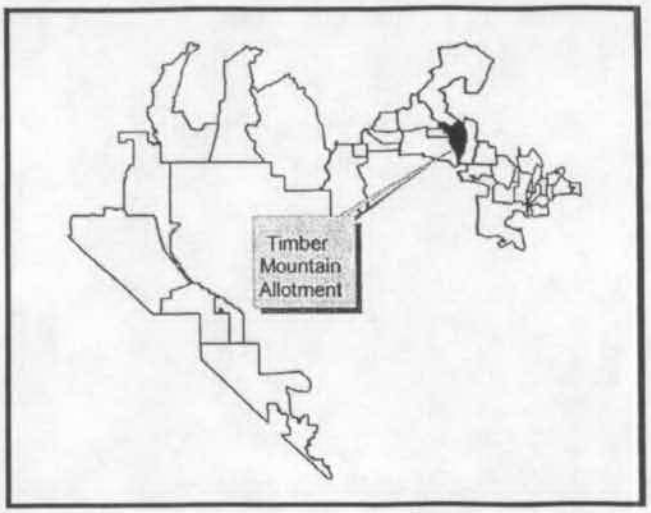


Figure 5.20.1 Wilson Creek Allotment - Deadman Use Area
Scale
1:60,000
Transportation Routes
Proposed Rail Alignment
Existing Railroad Tracks
Mitigatory Route
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
Waters in 8-Mile Zone
Spring
Water Tank
Trough
Pond or Reservior
0.5 0 0.5 1 1.5 2 Miles
"This data is based on the official legal description for the Dry Lake Valley Use Area of the Wilson Creek Allotment including the Thorley Use Area. The description was issued through a final multiple use decision in 1992 and is final unless superceded by another decision or agreement. The physical layout of this data set is not guaranteed by the BLM due to the nature of the legal description.
Standard Disclaimer: No warranty is made by the BLM as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data."
Timber Mountain Allotment
WR1
WR2
Mitigatory Route
Wilson Creek - Thorley Use Area
1
2
3
4
5
6
7
8
9
10
11
12
13
14

5.21 TIMBER MOUNTAIN ALLOTMENT

Permittee: Blue Diamond Oil Corporation
Contact: Gary Sprouse
Address: Box 150432
Ely, NV 89315



5.21.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Timber Mountain Allotment is located along the west side of State Route 318, with the south end of the allotment located approximately 26 miles north of Hiko. The allotment is approximately eighteen miles long. The south end of the allotment is approximately .5 mile wide. The allotment widens to about five miles across at the middle, and nine miles across at the north end. Timber Mountain forms much of the west boundary of the allotment. The boundary on the west side between the allotment and the Coal Valley Lake Allotment is unfenced. The east boundary runs along State Route 318, which is fenced on both sides. The north end of the allotment is fenced where it shares a boundary with the Sunnyside Allotment, up to the mountain, but it is unfenced along the remainder of the allotment boundary as it moves west. The Timber Mountain Allotment is not fenced into pastures. See Tables 5.21.1 and 5.21.2, and Figure 5.21.1 for details of the allotment boundary and the proposed railroad route.

Table 5.21.1 Timber Mountain Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	Private	Number/Type of Livestock	Season of Use	Total AUM	Miles	ROW Acres
43,839	None	40 cattle	11/01 – 4/10	212	WR1	
					6.49	162
					WR2a	
		2,036 sheep	11/01 – 4/10	2,155	6.76	169
				Total – 2,367	WR2b	
					7.05	176

Table 5.21.2 Timber Mountain Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
2,368	0	2,368

GRAZING SYSTEM

Spring and winter use. Livestock distribution is achieved by water hauling, and by taking advantage of seasonal precipitation. The white sage bottom of the White River is a crucial rangeland grazing area for livestock forage. Water hauling is used to move the livestock high

on the west bench of the allotment and out of the white sage bottoms to achieve even utilization of the grazing area.

STOCKWATER

There are four permanent sources of water on the allotment:

Map Reference 1 – White Rock Springs. Located near the south end of the allotment, the springs has a short pipeline to a tank near the highway.

Map Reference 2 – Well as detailed on Figure 5.21.1. It is unknown whether this well is in use.

Map Reference 3 – The White River Well is located at the north end of the allotment. This is the primary source of water when hauling water to other parts of the allotment becomes necessary.

Map Reference 4 – Water from a spring near the highway is piped under the highway to a storage tank east of the highway in the Deadman Use Area. The exact location of the spring is unknown, but is shown in the general area.

During seasonal precipitation events, water collects in the White River flats, drawing livestock into the white sage bottoms. Water hauling is done to distribute the livestock throughout the allotment.

5.21.2 Fencing Preference

The Permittee feels very strongly that the right-of-way should be fenced.

5.21.3 Proposed Railroad Alignment

The proposed railroad includes three railroad route options through the Timber Mountain Allotment. All of the alternative railroad routes will enter from the east across State Route 318 out of the Deadman Use Area and exit at the west end of the allotment into the Sunnyside Allotment. WR2b enters from the east as the northernmost track. WR1 enters the allotment from the east as a common route with WR2a. WR2a splits to the south, and then exits to the west into the Sunnyside Allotment as the southernmost track. All routes are detailed on Figure 5.21.1.

5.21.4 Impacts and Mitigation Without Fencing – WR2b

If WR2b is the selected route, there may be an opportunity to exchange land in the Sunnyside Allotment for land in the Timber Mountain Allotment on that section of the track where it enters the Sunnyside Allotment and then re-enters the Timber Mountain Allotment (Map References 11 and 12). If this section were fenced it could double as a fenced allotment boundary.

IMPACTS TO VEGETATION AND FORAGE

Inside the 176 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

WR2b will cross a fence as it enters the allotment (Map Reference 5), and will cross a fence as it exits the allotment (Map Reference 6). This will leave openings for cattle to get out on the highway, and to wander in and out of the Sunnyside Allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each fence opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

WR2b will divide the allotment into two pastures. For this analysis they are labeled on Figure 5.21.1 as the White River Well Pasture and the Timber Mountain Pasture. Movement from one pasture to the other with the track and service road unfenced will be impeded. Impacts from the division of the allotment are as follows.

1. Impediment to cattle movement from the White River Well Pasture to the Timber Mountain Pasture.
2. Grazing will be concentrated on the White River Well Pasture on the west side of the railroad, with little to no use on the Timber Mountain Pasture on the east side. This could possibly result in a reduction of AUMs for the permittee.
3. Concentration of cattle use on white sage stands in the White River Well Pasture.

MITIGATION

All of the above impacts can be mitigated to a degree by constructing cattle crossings (earth ramps not to exceed 25 percent grade every mile along the track). The Permittee prefers underpasses, but the feasibility of underpasses is unknown. Four cattle crossings are factored into Table 5.21.4 with the intent that they could be overcrossings or underpasses.

IMPACTS TO STOCKWATERS

WR2b will cause a reduction of the service area of the White River Well at Map Reference 3.

MITIGATION

In order to mitigate the loss of service area at the White River Well, drill a well in the general location of Map Reference 7. This well is necessary to utilize the Timber Mountain Pasture. This will also mitigate the loss of forage due to construction by opening more range for use.

IMPACTS TO ROADS AND TRAILS

WR2b will cross the water-hauling road that goes to the White River Well (Map Reference 8). It will also cross the Timber Mountain Pass Road (Map Reference 10), and a trail that runs along the fenced common boundary with the Sunnyside Allotment (Map Reference 9).

MITIGATION

Construct road crossings at Map References 8 and 10, with approaches not to exceed six percent grade. Construct a trail crossing on the trail at Map Reference 9, with approaches not to exceed twelve percent grade.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is a risk of livestock collisions if the right-of-way is not fenced.

MITIGATION

Fence the right-of-way. The Permittee feels that the risk of collisions is great enough to warrant fencing the right-of-way.

5.21.5 Impacts and Mitigation With Fencing – WR2b

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

WR2b will cross a fence as it enters the allotment (Map Reference 5), and will cross a fence as it exits into the Sunnyside Allotment (Map Reference 6). This will leave and opening for cattle to get out onto the highway, and for cattle to enter and exit from the Sunnyside Allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each fence opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing the right-of-way will create two pastures, labeled on Figure 5.21.1 as the White River Well Pasture and the Timber Mountain Pasture. The fenced right-of-way will be a barrier to cattle movement, and will cause the following impacts.

1. Prevent cattle moving from one pasture to another.
2. Prevent cattle from the Timber Mountain Pasture from accessing water at the White River Well (Map Reference 3).
3. Concentrated use in the White River Well Pasture.

MITIGATION

Mitigation is the same as that detailed under Section 5.21.4, *Impacts and Mitigation Without Fencing.*

IMPACTS TO STOCKWATER

WR2b will cause a reduction of use in the Timber Mountain Pasture, necessitating water hauling to that pasture.

MITIGATION

Drill a well in the general location of Map Reference 7. This well is necessary to utilize the Timber Mountain Pasture. This will also mitigate the loss of forage fenced into the right-of-way by opening more range in the Timber Mountain Allotment for use.

IMPACTS TO ROADS AND TRAILS

The right-of-way will cross the water-hauling road that leads to the White River Well, at Map Reference 8. It will cross the Timber Mountain Pass Road (Map Reference 10) and a trail that runs along the fenced common boundary with the Sunnyside Allotment (Map Reference 9).

MITIGATION

Construct a road crossing with a grade of six percent or less on the roads at Map References 8 and 10 and a vehicle crossing on the trail at Map Reference 9 with approaches not to exceed twelve percent grade. Place a road cattleguard in the fence on each side of the right-of-way, for a total of two road crossings, one trail crossing, and six road cattleguards.

5.21.6 Impacts and Mitigation Without Fencing – WR1

IMPACTS TO VEGETATION AND FORAGE

Inside the 162 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

WR1 will cross one fence each as it enters and exits the allotment. This will leave an opening for cattle to get out onto the highway (Map Reference 13), and to leave the allotment through the fence opening at Map Reference 14.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each fence opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

Like WR2b, WR1 will divide the allotment into two pastures and result in the following impacts:

1. Impediment to cattle movement from the White River Well Pasture to the Timber Mountain Pasture.
2. Grazing will be concentrated on the White River Well Pasture on the west side of the railroad, with little to no use on Timber Mountain Pasture on the east side. This could possible result in a reduction of AUMs for the permittee.
3. Concentration of cattle use on white sage stands in the White River Well Pasture.

MITIGATION

Mitigation is the same as for WR2b *Without Fencing*.

IMPACTS TO STOCKWATER

WR1 will cause a reduction of the service area of the White River Well at Map Reference 3.

MITIGATION

Mitigation is the same as for WR2b, requiring one well at Map Reference 7

IMPACTS TO ROADS AND TRAILS

WR1 will cross two water hauling roads (Map Reference 15 and 16), and one trail along the common fenced boundary with the Sunnyside Allotment (Map Reference 17).

MITIGATION

Construct road crossings at Map References 15 and 16 with approaches not to exceed six percent grade; and construct a trail crossing at Map Reference 17 with approaches not to exceed twelve percent grade.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Leaving the right-of-way unfenced increases the risk of animal-train collisions.

MITIGATION

Fence the right-of-way. The Permittee feels strongly that the risk of animal-train collision is great enough to warrant fencing the right-of-way.

5.21.7 Impacts and Mitigation With Fencing – WR1

Thirteen miles of fencing will be required to fence the WR1 right-of-way.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

WR1 will cross a fence as it enters and as it enters the allotment. This will leave an opening for cattle to get out on the highway (Map Reference 13) and for cattle to leave the allotment through the opening at the common boundary with the Sunnyside Allotment (Map Reference 14).

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing WR1 will create two definite pastures, labeled on Figure 5.21.1 as the White River Well Pasture and the Timber Mountain Pasture. The fenced right-of-way will be a barrier to cattle movement, and will cause the following impacts:

1. Prevent movement of cattle from one pasture to the other.
2. Prevent cattle from the Timber Mountain Pasture from accessing water at the White River Well.
3. Reduction of use in the Timber Mountain Pasture necessitating water hauling.
4. Concentrated use in the White River Pasture.
5. Possible loss of grazing in the White River Well Pasture due to the size of the pasture, and related loss of AUMs for the permittee.

MITIGATION

Mitigation is the same as that detailed in Section 5.21.4, *WR2b Impacts and Mitigation Without Fencing.*

IMPACTS TO STOCKWATER

WR1 will cause a reduction of the service area of the White River Well at Map Reference 3.

MITIGATION

Drill a well in the general area of Map Reference 7. This will also mitigate the loss of forage in the right-of-way by opening up the range in the Timber Mountain Pasture to use.

IMPACTS TO ROADS AND TRAILS

WR1 will cross two roads used for hauling water from the White River Well (Map References 15 and 16). It will also cross a trail that runs along the common fenced boundary with the Sunnyside Allotment (Map Reference 14).

MITIGATION

Construct road crossings at Map References 15 and 16, with approaches not to exceed six percent grade; and construct a trail crossing at Map Reference 14, with approaches not to exceed twelve percent grade.

Each of these crossings will require two road cattleguards, one on each side of the right-of-way, for a total of two road crossings, one trail crossing, and six road cattleguards.

5.21.8 Impacts and Mitigation Without Fencing – WR2a

IMPACTS TO VEGETATION AND FORAGE

Inside the 169 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

WR2a will cross a fence as it enters from State Route 318 (Map Reference 18) and as it exits into the Sunnyside Allotment (Map Reference 19). This will leave openings for cattle to get out onto the highway, and to exit the allotment into the Sunnyside Allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each fence opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT

Like the other two track routes, this track will divide the allotment into two pastures. Movement from one use area to the other with the track and service road unfenced will be impeded, but will not entirely stop movement. Impacts from the division of the allotment are as follows.

1. Impediment of movement of cattle from the White River Well Pasture to the Timber Mountain Pasture.
2. Grazing will be concentrated on the White River Well Pasture on the west side of the railroad, with little to no use on the Timber Mountain Pasture on the east side. This could result in a reduction of AUMs for the permittee.
3. Concentration of cattle use on white sage stands in the White River Well Pasture.

MITIGATION

Mitigation is the same as that detailed in Section 5.21.4, *WR2b Impacts and Mitigation Without Fencing.*

IMPACTS TO STOCKWATER

WR2a will cause a reduction of the service area of the White River Well at Map Reference 3.

MITIGATION

Drill one well in the general area of Map Reference 7. This will mitigate the loss of forage caused by construction, and will also mitigate the heavy use of the White River Well Pasture by opening the range in the Timber Mountain Pasture.

IMPACTS TO ROADS AND TRAILS

WR2a will cross two water hauling roads (Map References 20 and 21) and one trail along the common fenced boundary with the Sunnyside Allotment.

MITIGATION

Construct road crossings at Map Reference 20 and 21 with approaches not to exceed six percent grade; and construct a trail crossing with approaches not to exceed twelve percent grade.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Leaving the right-of-way unfenced increases the risk of animal-train collisions.

MITIGATION

Fence the right-of-way. The Permittee feels strongly that the risk of animal-train collisions is great enough to warrant fencing the right-of-way.

5.21.9 Impacts and Mitigation With Fencing – WR2a

Fencing WR2a will require 12.5 miles of fence.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

WR2a will cross one fence each as it enters and exits the allotment (Map References 18 and 22). This will leave an opening for cattle to get out onto the highway, and for cattle to leave the allotment at will.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at Map References 21 and 22.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing WR2a will create two definite pastures labeled on Figure 5.21.1 as the White River Well Pasture and the Timber Mountain Pasture. The fenced right-of-way will create a barrier to cattle movement, and cause the following impacts.

1. Prevent the movement of cattle from one pasture to another.
2. Prevent cattle in the Timber Mountain Pasture from accessing water at the White River Well (Map Reference 3).
3. Cause concentrated use in the White River Well Pasture.
4. Possible loss of grazing in the White River Well Pasture due to the size of the pasture, and related loss of AUMs for the permittee.

MITIGATION

Mitigation is the same as that detailed in Section 5.21.4, *WR2b Impacts and Mitigation Without Fencing.*

IMPACTS TO STOCKWATER

WR2a will cause a reduction of use in the Timber Mountain Pasture.

MITIGATION

Drill a well in the general location of Map Reference 7. Haul water to distribute cattle and increase the use in the Timber Mountain Pasture.

IMPACTS TO ROADS AND TRAILS

The proposed track will cross two roads used for hauling water (Map References 20 and 21), and a trail that runs along the fenced common boundary with the Sunnyside Allotment (Map Reference 22).

MITIGATION

Construct road crossings with approaches not to exceed six percent grade at Map References 20 and 21, and a trail crossing at Map Reference 22. Each of the crossings will require a road cattleguard on each side of the right-of-way, for a total of two road crossings, one trail crossing, and six road cattleguards.

It is very important that the BLM, DOE, and the Permittees from the Timber Mountain Allotment and the Deadman Use Area meet onsite to select the most appropriate location for the Mitigatory Route to cross State Route 318, and the location of the railroad entry into the Timber Mountain Allotment from the Deadman Use Area. The locations need to be determined before staking of the right-of-way begins.

Table 5.21.3 Timber Mountain Allotment Impacted Features

Permittee Fencing Preference: With Fencing

Impacted Features	WR1	WR2a	WR2b
Stockwaters w/in 4 miles	2	2	2
Stockwaters w/in 1 mile	2	2	2
Fences (ea)	2	2	2
Roads (ea)	2	2	2
Trails (ea)	1	1	1
Pipelines (ea)			
Other			

Table 5.21.4 Timber Mountain Allotment Mitigation Project Comparison

Proposed Mitigation Units	WR1		WR2a		WR2b	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)		12.9		13.52		14.1
Gates (ea)		18		18		18
Railroad Cattleguards (ea)	2	2	2	2	2	2
Road Cattleguards (ea)	2	8	2	8	2	8
Road Crossings (ea)	2	2	2	2	2	2
Trail Crossings (ea)	1	1	1	1	1	1
Cattle Crossings (ea)	4	4	4	4	4	4
Sheep Crossings (ea)						
Pipeline Construction (mi)						
Pipeline Crossings (ea)						
Unspecified Stockwaters						
Troughs (ea)						
Wells (ea)	1	1	1	1	1	1
Springs (ea)						
Other						

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked.*

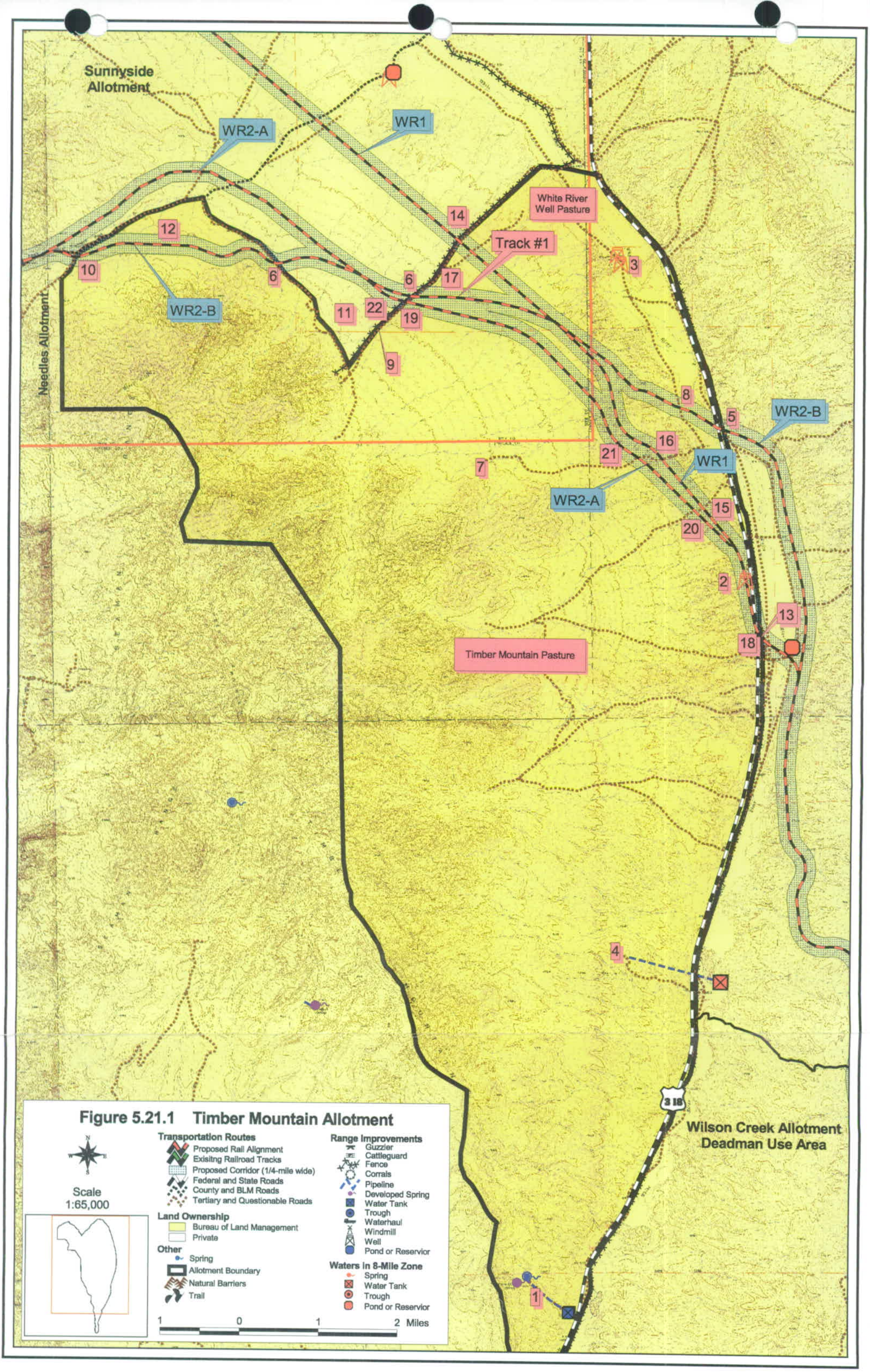
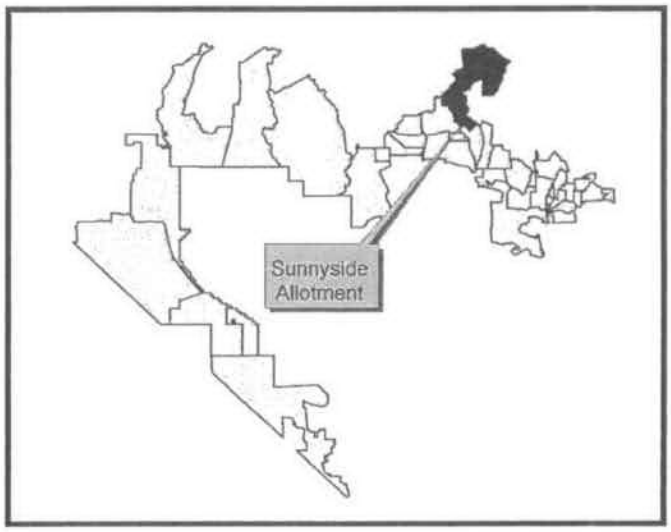


Figure 5.21.1 Timber Mountain Allotment

5.22 SUNNYSIDE ALLOTMENT

Permittee: Bruce and Pamela Jensen
Contact: Bruce and Pamela Jensen
Address: Box 253
Lund, NV 89317



5.22.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The White River Valley splits the Sunnyside Allotment into east and west parts. The southeast corner almost touches Highway 318, about 45 miles north of Hiko. The allotment is in excess of thirty miles long. It varies in width from about 3.5 miles wide on the narrow southeast end to about nine miles wide on the west end. The area of concern for this analysis is a piece of land approximately twelve miles long from the southeast end of the allotment that is located west of the White River Valley, where the proposed track and service road will be located. The allotment is not fenced into pastures. See Tables 5.22.1 and 5.22.2, and Figure 5.22.1 for details of the allotment boundary and railroad route.

Table 5.22.1 Sunnyside Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
224,508	4,234	539 cattle	6-01 / 3-31	5387	WR1	
					10.9	273
TOTAL – 237,391					WR2a	
					5.13	128
					WR2b	
					2.02	51

Table 5.22.2 Sunnyside Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
5,402	0	5,402

GRAZING SYSTEM

Cattle are moved about by use areas to take advantage of available water and manage the forage base. Livestock rotation is over a three-allotment area that includes the Sunnyside, Hardy Spring, and Shingle Pass Allotments.

STOCKWATERS

There are six sources of water for livestock in the area of concern:

1. The White River flows through the center of the allotment. Livestock water on public and private lands along the river bottom.
2. Each year water is released form the state-owned Kirch Wildlife area to run south and flood the white river flats on both public and private lands.
3. There is a dirt pond in the White River Sink that fills when water is released fro the Kirch Wildlife area as mentioned above. The pond is used to further distribute livestock on public lands within the Sunnyside Allotment (Map Reference 1).
4. There is a well and stock pond at Map Reference 2.
5. In some years water is hauled to the mid-slope rangeland at the southeast end of the allotment where there are patches of white sage. (Map References 3).
6. The livestock operation on the Sunnyside Allotment relies on seasonal precipitation events primarily in the winter to distribute livestock into areas where there are no natural waters.

GRAZING AND CATTLE MOVEMENT

Cattle typically water in the lower rangeland where there are water sources, and then graze upslope to the south and west. Cattle travel up the washes and then spread out as they reach the upslope rangeland. Some of the washes have stretches of deep cuts, up to thirty feet deep with steep sidewalls. Once cattle are in the wash they are restricted there until they reach a point where the sidewalls are less steep so they can walk out.

There are wild horses on the allotment in addition to cattle. They tend to use the ridges rather than the washes as a route from the lower to the upper slopes.

5.22.2 Fencing Preference

The Permittees do not want fencing along the right-of-way, no matter which railroad alternative is selected.

5.22.3 Proposed Railroad Route

There are three different proposed tracks that will pass through the south end of the allotment, the northern and southern White River Alternatives (WR1 and WR2a & b). Impacts and suggested mitigation for each proposed track are outlined below.

5.22.4 Impacts and Mitigation Without Fencing – WR1

WR1 passes through 10.9 miles of the allotment. This railroad alignment will have the most impact to the allotment of the three proposed alignment alternatives.

IMPACTS TO VEGETATION AND FORAGE

Inside the 273 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction

related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCING

The track and service road will pass through a fence on entry from the Timber Mountain Allotment (Map Reference 4). This will leave an opening for cattle to enter or exit the allotment at will. The allotment boundary exit point of the track is unfenced.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at the fence opening, for a total of one railroad cattleguard and one road cattleguard.

IMPACTS TO LIVESTOCK MOVEMENT

The range upslope of the proposed track will be about 1.5 to 2.5 miles wide, covering approximately 14,000 acres. The track presents a barrier to cattle movement up the washes to the grazing above the track. The area between the water sources on the bottom and WR1 is one mile to 2.5 miles wide. There are no water sources above the proposed track location. The track cuts the south end of the allotment west of the White River Valley in half.

If cattle do make it above the track and into the washes there is a risk of them becoming trapped in areas with steep walls and no water source. This presents a risk of death if cattle are unable to find their way out of the wash.

With or without fencing the proposed WR1 and service road will cause cattle to congregate and make heavy use below the track because movement upslope will be impeded by the track. This impact cannot be mitigated. The degree to which the track will impact cattle use of specific areas cannot be determined until the track and service road are in place.

MITIGATION

Construct trestles where the track crosses the washes on the slope. The number of trestles cannot be determined until the centerline of the track is staked; however there are a large number of washes. There may be some cases where cattle crossings are appropriate. However, the Permittee prefers underpasses. Cattle crossings will consist of an earth ramp on each side of the track with approaches not to exceed 25 percent grade, placed on ridges. Wild horses that normally utilize the ridges to move about the range would most likely use the crossings more than cattle.

A thirty-foot fill with a two-to-one side slope and 30 feet for the track and service road on top would have a base in excess of 150 feet. If an underpass is constructed through this base it is highly unlikely that cattle will use it. An alternative is to build trestles across the washes for the train rather than using fill with underpasses. Cattle will travel under trestles, while they typically will not utilize long tunnels.

The possibility of drilling wells upslope of WR1 should be explored. Otherwise water will have to be hauled for cattle grazing in the area upslope of the track, increasing labor, costs, and time associated with typical water hauling on the allotment.

An option for mitigation is to develop forage offsite, by developing pivot irrigation circles on BLM land for forage production. The land would be deeded to the Permittees.

ROADS AND TRAILS

The proposed WR1 crosses one road (Map Reference 5) and three trails (Map References 6-8).

MITIGATION

Install a crossing at the intersection of the road and track with approaches not to exceed six percent. Install three trail crossings, with approaches not to exceed twelve percent.

ANIMAL-TRAIN COLLISION

There is some level of risk of the train hitting cattle on the track, as well as wild horses that water at the bottom of the slope where the track is proposed for construction.

MITIGATION

Fence the right-of-way to lessen the chance of animal-train collisions.

5.22.5 Impacts and Mitigation With Fencing – WR1

The Permittees feel that the problems caused by fencing WR1 outweigh the reduction of risk to cattle. Fencing the track and service road would require 21.8 miles of fence, and numerous road cattleguards on the service road. Because of the large number of deep drainages that the railroad will cross, fencing is not a viable option.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

5.22.6 Impacts and Mitigation Without Fencing – WR2a

Proposed WR2a crosses 5.2 miles of the allotment. The range upslope of the proposed track will be primarily less than .5 mile wide, however the south end will be about one mile wide. WR2a will cause considerably fewer impacts than will WR1.

IMPACTS TO VEGETATION AND FORAGE

Inside the 128 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

WR2 and the service road will cross the fence as it enters from the Timber Mountain Allotment to the south. This will leave an opening for cattle to enter and leave the allotment at will (Map Reference 9). There is no fence where the track exits the allotment.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at the fence opening, for a total of one railroad cattleguard and one road cattleguard.

IMPACTS TO GRAZING AND CATTLE MOVEMENT

The proposed railroad crosses a number of washes used by cattle to travel up to the higher rangeland. The track will impede cattle movement upslope. There may be some concentrated cattle use just below WR2a. However the impact of WR2a will be much less than WR1, as WR2a is further from water and also a shorter route.

MITIGATION

Construct cattle crossings at one-mile intervals along the track between road and trail crossings Concentrated cattle use will be reduced by cattle crossings, however some cattle concentration may still occur downslope of the track.

IMPACTS TO ROADS AND TRAILS

Proposed WR2 will cross one road (Map Reference 10) and one trail (Map Reference 11).

MITIGATION

Construct a road crossing on the road with approaches not to exceed six percent grade. Construct trail crossings at the trails with approaches not to exceed twelve percent. These crossings can serve a dual purpose as cattle crossings.

IMPACT TO LIVESTOCK FROM COLLISIONS

There is some level of risk of animal-train collisions, including wild horses.

MITIGATION

Fence the track and service road to lessen the risk of animals being hit by trains. This mitigation will require 10.4 miles of fence.

5.22.7 Impacts and Mitigation With Fence – WR2a

The impacts and mitigation will be the same with the track fenced as unfenced, except as follows.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACT- CONCENTRATED USE ALONG RIGHT-OF-WAY

With the track fenced cattle may concentrate use along the lower side of the right-of-way due to natural drifting behaviors. When ungulates follow the forage source uphill, and then are restricted by physical barriers (railroad track in this case), they tend to follow the barrier,

concentrating grazing use in close proximity to the barrier. The Permittee noted that cattle make light use of this area currently.

MITIGATION

No mitigation is offered. Some cattle will use the suggested underpasses and some will chose not to, or will be unable to figure out how to use the underpasses to reach the area above the track.

5.22.8 Impacts and Mitigation Without Fence – WR2b

Proposed WR2b will cross two miles of the allotment. With a 200-foot right-of-way it will occupy 50.5 acres of land. The rangeland upslope from water is about one mile wide on one end, tapering off to a 'V' at the other end. Of the three proposed tracks, this track will create the least amount of impact to the allotment. The area above the proposed track is small and receives less cattle use than other areas of the allotment. This area is located 2.5 miles from water sources.

IMPACTS TO VEGETATION AND FORAGE

Inside the 51 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO GRAZING AND CATTLE MOVEMENT

Proposed WR2b and the service road cross some washes. It will impede cattle movement upslope from water sources.

MITIGATION

Construct one cattle crossing.

IMPACTS TO EXISTING FENCE

WR2b will cross a fence as it enters the allotment from the Timber Mountain Allotment to the south (Map Reference 12). This will leave an opening for cattle to enter or exit the allotment at will.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road to close the opening.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is some risk of the train hitting animals on the track if the right-of-way is left unfenced.

MITIGATION

Fence the right-of-way.

5.22.9 Impacts and Mitigation With Fencing – WR2b

Fencing the WR2b right-of-way would require four miles of fencing. By extending the fencing through the corner of the Timber Mountain Allotment, the fenced right-of-way could become the allotment boundary. This fence would also solve a grazing issue of cattle from the Sunnyside Allotment drifting into the Timber Mountain Allotment and vice versa. This would require a minor change in the allotment boundary. See Map References 13 and 14. The impacts and mitigation will be the same as W2b *Without Fencing* except for the following.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO LAND VALUE

The single biggest impact of the proposed railroad is the nature of the material the trains will be carrying. The Permittees have several 40-acre tracts of private land on the lower White River. The tracts were listed for sale at $1,000 per acre with potential buyers. The Permittees report that because of the proposed shipment of nuclear waste across the tracts, the buyers are no longer interested.

Table 5.22.3 Sunnyside Allotment Impacted Features

Permittee Fencing Preference: Without Fencing

Impacted Features	WR1	WR2a	WR2b
Stockwaters w/in 4 miles	5	3	3
Stockwaters w/in 1 mile	1		
Fences (ea)	1	1	1
Roads (ea)	1	1	
Trails (ea)	3	1	
Pipelines (ea)			
Other			

Table 5.22.4 Sunnyside Allotment Mitigation Project Comparison

Proposed Mitigation Units	WR1		WR2a		WR2b	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)		21.8		10.26		4.04
Gates (ea)	2	10	2	14	2	4
Railroad Cattleguards (ea)	1	1	1	1	1	1
Road Cattleguards (ea)	1	9	1	5	1	1
Road Crossings (ea)	1	1	1	1		
Trail Crossings (ea)	3	3	1	1		
Cattle Crossings (ea)			4	4	1	1
Sheep Crossings (ea)						
Pipeline Construction (mi)						
Pipeline Crossings (ea)						
Trestles*	25	25				
Unspecified Stockwaters						
Troughs (ea)						
Wells (ea)						
Springs (ea)						
Other						

*WR1 crosses 33 drainages over which trestles are recommended. The exact number of trestles cannot be determined until the railroad is staked.

Note: *These construction units are estimates. Actual units cannot be determined until the centerline of the track is staked and design plans are available.*

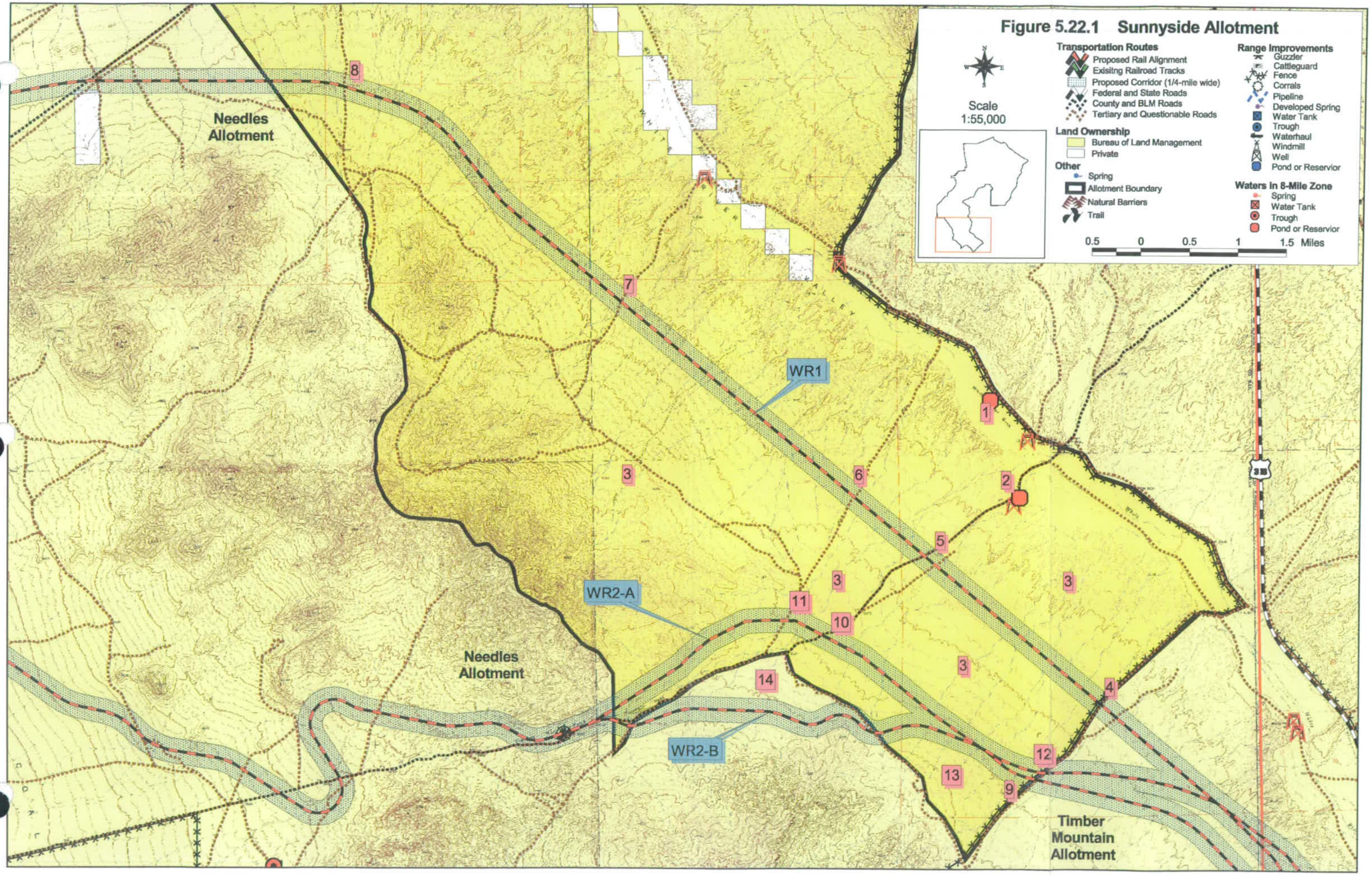
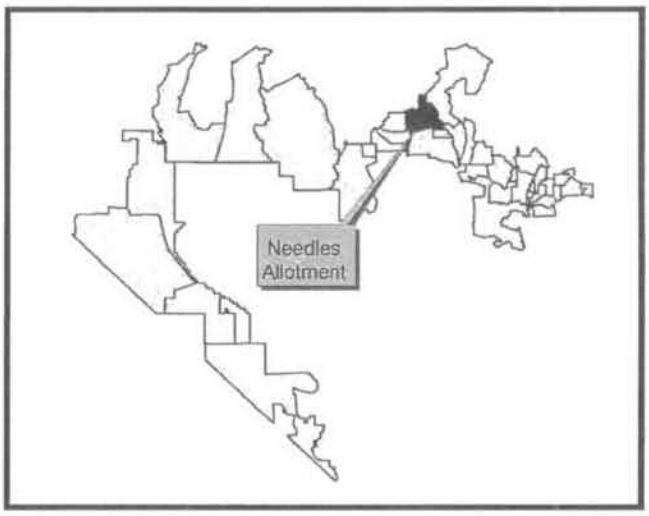


Figure 5.22.1 Sunnyside Allotment
Scale
1:55,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
Waters in 8-Mile Zone
Spring
Water Tank
Trough
Pond or Reservior
0.5 0 0.5 1 1.5 Miles
Needles Allotment
Needles Allotment
Timber Mountain Allotment
WR1
WR2-A
WR2-B
1
2
3
4
5
6
7
8
9
10
11
12
13
14

5.23 NEEDLES ALLOTMENT

Permittee: Double U Livestock L.L.C.
Contact: Wade West
Address: P.O. Box 141
Lund, NV 89317



5.23.1 Existing Situation

Base Property: The base property classification is 100% "Water" under authority of the Taylor Grazing Act. The grazing privileges in this allotment are thus attached to the various privately owned water rights within the allotment. The base property classification adds a level of value and importance to the waters and water rights beyond the level of private property rights under State Law. The consequence of adversely affecting the stockwaters is greater than if Double U Livestock (DUL) had only a water right on them.

ALLOTMENT DESCRIPTION

The south boundary of the allotment is fenced, and there is a north/south gap fence in Water Gap at the southeast corner of the allotment. There are no other allotment boundary fences, nor internal pasture fences. See Tables 5.23.1 and 5.23.2, and Figure 5.23.1 for details of the allotment boundary, improvements, the railroad alignment, and proposed mitigation projects.

Table 5.23.1 Needles Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
84,567	931	1,269 sheep	10/01 – 4/15	1,644	WR1-GV1	
					13.46	337
Total – 85,498					WR2-GV2	
					15.72	393
					WR1-GV2	
		210 cattle	10/01 – 2/28	1,043	13.3	333
					WR2-GV2	
					16.65	416
					Mitigatory Route	
					14.24	356

Table 5.23.2 Needles Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
2,679	0	2,679

GRAZING SYSTEM

Continuous winter season use. The allotment is grazed by both cattle and sheep. The sheep are herded throughout the allotment. Cattle are distributed through the allotment using established water sources, water hauling, and seasonal precipitation events.

STOCKWATER

Stockwaters on the allotment consist of wells, troughs, tanks, and ponds, as detailed on Figure 5.23.1.

WATER RIGHTS

The stockwaters are all vested, certified or permitted under Nevada State Law. They are private property rights.

ROADS

Many roads used for management and administration of the livestock grazing operation traverse the allotment.

FENCES

The south boundary of the allotment is fenced, and there is a north/south gap fence in the Water Gap at the southeast corner of the allotment. There are no other allotment boundary fences or internal pasture fences.

VEGETATION

The north end of Coal Valley lies within the Needles Allotment. The Valley contains rich and productive white sage, a primary reason for the historical use of the allotment as winter sheep range.

RESIDENCE

DUL has a late fall, winter, and early spring residence at Map Reference 1 on Figure 5.23.1. The residence is located on the east flank of the Golden Gate Range. It has a magnificent view to the east, across Coal Valley, and of the Seaman Mountains. Coal Valley is notable for its peace and tranquility.

5.23.2 Fencing Preference

The Permittee is undecided about the right-of-way fencing preference.

5.23.3 Proposed Railroad Alignment

There are four track options in this allotment:

WR1-GV1 – northern route, through Deadman Pass.

WR1-GV2 – northern route, through Water Gap.

WR2-GV1 – southern route, through Deadman Pass

WR2-GV2 – southern route, through Water Gap

5.23.4 Impacts and Mitigation Without Fencing – WR1-GV1

Impacts and mitigation cannot be specifically determined until the centerline of the railroad is staked, and the design is available to show the depth of cuts and fills. The cuts and fills will have a bearing on the degree of obstruction to livestock movements.

IMPACTS TO VEGETATION AND FORAGE

Inside the 337 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

Deed irrigated farmland to DUL. (See Impacts to Overall Livestock Operation).

IMPACTS TO EXISTING FENCING

The track passes through the south allotment boundary fence at Water Gap (Map Reference 3).

MITIGATION

Construct a railroad cattleguard and service road cattle guard at this fence intersection.

IMPACTS TO LIVESTOCK MOVEMENT

The track will create a barrier and interfere with cattle movements and grazing habits to some degree. It will also interfere with movement of neighboring cattle who trail through the Needles Allotment. The deeper the cuts and fills, the more the interference.

MITIGATION

Construct sheep crossings with less than 25 percent grade and 100-foot width (for bands of sheep), at approximately one-mile intervals between road crossings. This will require about nine sheep crossings.

IMPACTS TO STOCKWATERS

The impacted waters are both private property rights under Nevada State Law, and base property under the Taylor Grazing Act.

Pipeline – The track intersects a pipeline at Map Reference 2.

Troughs, trough/tanks, springs, wells, and ponds – The track impacts thirteen stockwaters that lie within four-miles of the track. The thirteen stockwaters include one trough, six tanks/troughs, four wells, one spring, and one pond. Three tanks/troughs and one well are within one mile of the track, subjecting the sheep to increased risk of collision and death due to congestion proximity to the track.

MITIGATION

Protect the pipeline so that it remains functional during and after railroad construction.

For the thirteen stockwaters within four miles of the track, deed irrigated farmland to DUL. (See Impacts to Overall Livestock Operation).

For the four stockwaters within one mile of the track, relocate the four stockwaters a mile away from the track.

IMPACTS TO ROADS AND TRAILS

Eight trails and one road are intersected by the track.

MITIGATION

Construct crossings on the eight trails with approaches less than six percent grade. Construct crossings on the road with approaches less than twelve percent grade.

IMPACTS TO RESIDENCE

The track passes in front of the residence at a distance of about 1.5 miles directly in the view across the valley toward the Seaman Range. The train will impact the solitude, tranquility, silence, and view from the residence, and lower the value of the property.

MITIGATION

These impacts are intangible, but real. DUL does not know how to mitigate these impacts other than to add more to the irrigated farmland to be deeded to DUL.

IMPACTS TO LIVESTOCK FROM COLLISIONS

The trains will pose a risk of livestock death loss from collisions.

MITIGATION

Reimburse DUL for the full value of lost animals. Deed irrigated farmland to DUL. (See Impacts to Overall Livestock Operation).

IMPACTS TO VEHICLE TRAFFIC AND SHEEP TRAILING AT WATER GAP

The Water Gap is a highly used and congested desert intersection with a waterway, vehicle and heavy truck traffic, and both cattle and sheep trailing. The sheep trailing is more demanding than cattle trailing as it requires 100-foot wide crossings to accommodate the sheep bands. DUL uses the Water Gap trail frequently with their bands going to and coming from other allotments.

MITIGATION

All uses that converge on the Water Gap will require thoughtful and critical planning and design. DUL requests that all the users be invited to a scoping and planning session with DOE engineers on site to explain and discuss the needs in order to assure accommodation of all the uses and traffic.

IMPACTS TO OVERALL LIVESTOCK OPERATION

The proposed railroad will create disruption to the operation; time and expense will be required to adjust to, and live with, the disruption; forage and protective vegetative cover will be lost on the right-of-way and throughout the allotment, which could result in a reduction in available permitted AUMs; there will be intangible loss of solitude, tranquility, and visual resources; there will be impacts to valuable private property rights consisting of water rights under Nevada State Law and water base property under the Taylor Grazing Act.

MITIGATION

DUL requests that irrigable farmland with irrigation wells be deeded to them to compensate for damages. They request the farmland be selected from the BLM land in the Needles Allotment on a site with suitable soils, underground water availability, and the capability to accommodate an undetermined number of irrigation pivots. They request that wells be drilled with sufficient capacity to service the pivots. The wells can be used for construction water during the railroad

construction phase. DUL requests the opportunity to negotiate the number of pivots and accompanying land with DOE in order to arrive at a just and reasonable mitigation for the damages, disruption, and losses incurred. The services and expertise of an Agricultural Economist are requested to assist with determination of value of farmland, and cost of damages, to serve as a basis for negotiation.

5.23.5 Impacts and Mitigation With Fencing - WR1-GV1

Regardless of the DUL preference concerning fencing, the impacts and mitigation both with and without fencing are described in order to provide comparative information for the Environmental Impact Statement.

IMPACTS TO VEGETATION AND FORAGE BASE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO LIVESTOCK MOVEMENT

With fencing, the track becomes an absolute barrier to sheep movement and creates new pasture boundaries. This disrupts the grazing management system and will require time, thought, expense, and planning to revise the Allotment Management Plan as well as DUL's Livestock Management Plan.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative.

IMPACTS TO STOCKWATERS

Impacts to stockwaters are the same as without fencing, except the sheep congestion proximity to the rail will no longer be a problem, with the further exception of the water tank and trough that appear to be in the right of way.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative, except the waters that are within one mile of the track will not need to be relocated, with the exception of the tank and trough inside the right-of-way which will still need to be relocated.

IMPACTS TO ROADS AND TRAILS

Impacts are the same as detailed under the *Without Fencing* alternative.

MITIGATION

Mitigation is the same as without fencing, except that installation of vehicle cattleguards on both right of way fences will be required at every trail and road crossing.

IMPACTS TO RESIDENCE

Impacts are the same as detailed under the *Without Fencing* alternative.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Fencing the right-of-way would eliminate most of the death loss risk from collisions. The residual risk would be from livestock getting inside the fenced right-of-way by either getting through the fence, or by gates being left open.

MITIGATION

No mitigation is suggested.

IMPACTS TO OVERALL LIVESTOCK OPERATION

Impacts are the same as detailed under the *Without Fencing* alternative

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative.

5.23.6 Impacts and Mitigation Without Fence – WR1-GV2

Of the four tracks specified, this is the DUL preferred option. Impacts are the same as WR1-GV1 Without Fencing, with the following exceptions:

- There are 333 acres in the right-of-way rather than 337.
- There will be about five sheep crossings rather than 9.
- There are ten stockwaters rather than eleven within four miles of the track.
- There are four stockwaters rather than three within one mile of the track.
- There are ten trails rather than eight, and two roads rather than three intersected by the track.

IMPACTS TO EXISTING FENCING

The Track passes through the south allotment boundary fence at Water Gap marked #3 on the map.

MITIGATION

Construct a railroad cattleguard and road cattleguard on the service road at this fence intersection.

IMPACTS TO VEHICLE TRAFFIC AND LIVESTOCK TRAILING AT WATER GAP

Water Gap is a highly used and congested desert intersection with a water course, vehicle and heavy truck traffic, and both cattle and sheep trailing. The sheep trailing is more demanding than cattle trailing as it requires 100 ft. wide crossings to accommodate the sheep bands. DUL uses the Water Gap Trail frequently with their bands going to and from other allotments.

MITIGATION

All of the uses that converge on Water Gap will require thoughtful and critical planning and design. DUL requests that all users be invited to a scoping and planning session with DOE engineers on site to explain and talk through the needs in order to assure accommodation of all the uses and traffic.

5.23.7 Impacts and Mitigation With Fencing – WR1-GV2

Impacts are the same as WR1-1 with fencing with the following exceptions.

IMPACTS TO EXISTING FENCING

Impacts are the same as WR1-GV2 without fencing.

MITIGATION

Whether or not a railroad cattleguard and service road cattleguard are needed depends on whether or not the railroad right-of-way is fenced in the adjacent allotment.

IMPACTS TO VEHICLE TRAFFIC AND LIVESTOCK TRAILING AT WATER GAP

Impacts are the same as WR1-GV2 without fencing.

MITIGATION

Impacts are the same as WR1-GV2 without fencing.

5.23.8 Impacts and Mitigation Without Fencing – WR2-GV1

IMPACTS AND MITIGATION WITHOUT FENCING

Same as WR1-GV1 without fencing with the following exceptions:

- There are 416 acres in the right-of-way rather than 337.
- There will be about seven sheep crossings rather than nine.
- There are ten stockwaters rather than eleven within four miles of the track.
- There are two stockwaters rather than three within one mile of the track.
- There are six trails rather than eight, and five roads rather than three that are intersected by the track.
- The track passes in front of the residence at a distance of three miles rather than 1½.

IMPACTS TO CORRALS

The track goes over the top of the set of corrals in Timber Pass.

MITIGATION

Replace the corrals in a suitable location.

5.23.9 Impacts and Mitigation With Fencing – WR2-GV1

Same as WR1-GV1 with fencing with the following exceptions.

MITIGATION OF IMPACTS TO STOCKWATERS

Same as without fencing, except the stockwaters that are within one mile of the track will not need to be relocated.

5.23.10 Impacts and Mitigation Without Fencing – WR2-GV2

Same as WR1-GV1 without fencing with the following exceptions:

- There are 393 acres in the right-of-way rather than 337.
- There will be about six sheep crossings rather than nine.
- There are seven stockwaters rather than eleven within four miles of the track.
- There are ten trails rather than eight that are intersected by the track.
- The track passes in front of the residence at a distance of about four miles rather than 1½.

IMPACTS TO EXISTING FENCING

The track passes through the south allotment boundary fence at Water Gap.

MITIGATION

Construct a railroad cattle guard and service road cattleguard at this fence intersection.

IMPACTS TO VEHICLE TRAFFIC AND LIVESTOCK TRAILING AT WATER GAP

Water Gap is a highly used and congested desert intersection with a water course, vehicle and heavy truck traffic, and both cattle and sheep trailing. The sheep trailing is more demanding than cattle trailing as it requires 100 ft. wide crossings to accommodate the sheep bands. DUL uses the Water Gap frequently with their bands going to and from other allotments.

MITIGATION

All of the uses that converge on Water Gap will require thoughtful and critical planning and design. DUL requests that all users be invited to a scoping and planning session with DOE engineers on site to explain and talk the needs through in order to assure accommodation of all the uses and traffic.

IMPACTS TO CORRALS

The track goes over the top of the set of corrals in Timber Pass.

MITIGATION

Replace the corrals in a suitable location.

5.23.11 Impacts and Mitigation With Fencing – WR2-GV2

Same as WR1-GV1 with fencing with the following exceptions.

MITIGATION OF IMPACTS TO STOCKWATERS

Same as without fencing, except the stockwaters that are within one mile of the track will not need to be relocated.

IMPACTS TO EXISTING FENCING

Impacts are the same as WR1-GV2 without fencing.

MITIGATION

Whether or not a railroad cattleguard and road cattleguard on the service road are needed depends on whether or not the railroad right-of-way is fenced in the adjacent allotment.

IMPACTS TO VEHICLE AND LIVESTOCK TRAILING AT WATER GAP

Impacts are the same as WR1-GV2 without fencing..

MITIGATION

Impacts are the same as WR1-GV2 without fencing.

5.23.12 Impacts and Mitigation Without Fencing - Mitigatory Route

This route is proposed by DUL. It is a realignment of WR1-GV2, moving the location of the track to the west a half-mile or so to an existing road. Moving the track alignment will allow utilization of the already disturbed existing road to reduce the overall increase in disturbance and loss of vegetation/forage in the allotment.

Impacts are the same as those detailed for WR1-GV1 without fencing with the following exceptions:

- There are 356 acres in the right-of-way rather than 337.
- There will be about six sheep crossings rather than nine.
- There are four stockwaters rather than three within one mile of the track.

- There are seven trails rather than eight, and one road rather than three that are intersected by the track.
- The track passes the residence at a distance of about a mile rather than 1½ miles.

IMPACTS TO EXISTING FENCING

Same as WR1-GV2 without fencing.

MITIGATION

Same as WR1-GV2 without fencing.

IMPACTS TO VEHICLE TRAFFIC AND LIVESTOCK TRAILING AT WATER GAP

Same as WR1-GV2 without fencing.

MITIGATION

Same as WR1-GV2 without fencing.

5.23.13 Impacts and Mitigation With Fencing – Mitigatory Route

Same as WR1-GV1 with fencing with the following exceptions:

All the exceptions above in Mitigatory Route Without Fencing apply here.

5.23.14 Alternate Mitigation

All of the four Tracks are devastating to the Needles Allotment. In view of that, DUL presents 4 alternate mitigation measures in their preferred order:

1. Caliente/Hiko/ NTTR Route – Use a route following Highway 93 from Caliente west to Highway 375, and then cut across the Nevada Test and Training Range to Yucca Mountain. That would avoid most of the disruption to grazing allotments, and all the associated private property rights.
2. Boardman Bombing Range in Oregon – DUL offers to trade their Needles Allotment to DOE for the approximately 50,000 acre Boardman Bombing Range near Boardman, Oregon that is currently ungrazed.
3. Deed irrigated farmland with pivots and wells to DUL as discussed under Impacts to Overall Livestock Operation above, and select a modified WR1-GV2 alignment to follow the nearby road. This route is marked as Mitigatory Route on the map. This would reduce the disturbance to vegetation.
4. Deed irrigated farmland with pivots and wells to DUL, and select WR1-GV2.

Table 5.23.3 Needles Allotment Impacted Features

Permittee Fencing Preference: Undecided

Impacted Features	WR1-GV1	WR1-GV2	WR2-GVI	WR2-GV2	Mitigatory Route
Stockwaters w/in 4 miles	11	10	10	7	11
Stockwaters w/in 1 mile	3	4	2	3	4
Fences (ea)		1		1	1
Roads (ea)	3	2	5	5	1
Trails (ea)	8	10	6	10	7
Pipelines (ea)	1	1			1
Corrals			1	1	

Table 5.23.4 Needles Allotment Mitigation Project Comparison

Proposed Mitigation Units	WR1-GV1		WR1-GV2		WR2-GVI		WR2-GV2		Mitigatory Route	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)		27		26.6		33.4		31.4		28.4
Gates (ea)		40	1	35		36	1	43	1	29
Railroad Cattleguards (ea)			1	1			1	1		1
Road Cattleguards (ea)		22	1	25		22	1	31		17
Road Crossings (ea)	3	3	2	2	5	5	5	5	1	1
Trail Crossings (ea)	8	8	10	10	6	6	10	10	7	7
Cattle Crossings (ea)										
Sheep Crossings (ea)	9	9	5	5	7	7	6	6	6	6
Pipeline Construction (mi)										
Pipeline Crossings (ea)	1	1	1	1					1	1
Corral Relocation					1	1	1	1		
Unspecified Stockwaters	3	1	4	1	2		3	1	4	2
Troughs (ea)										
Wells (ea)										
Springs (ea)										
Other										

Note: *These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.*

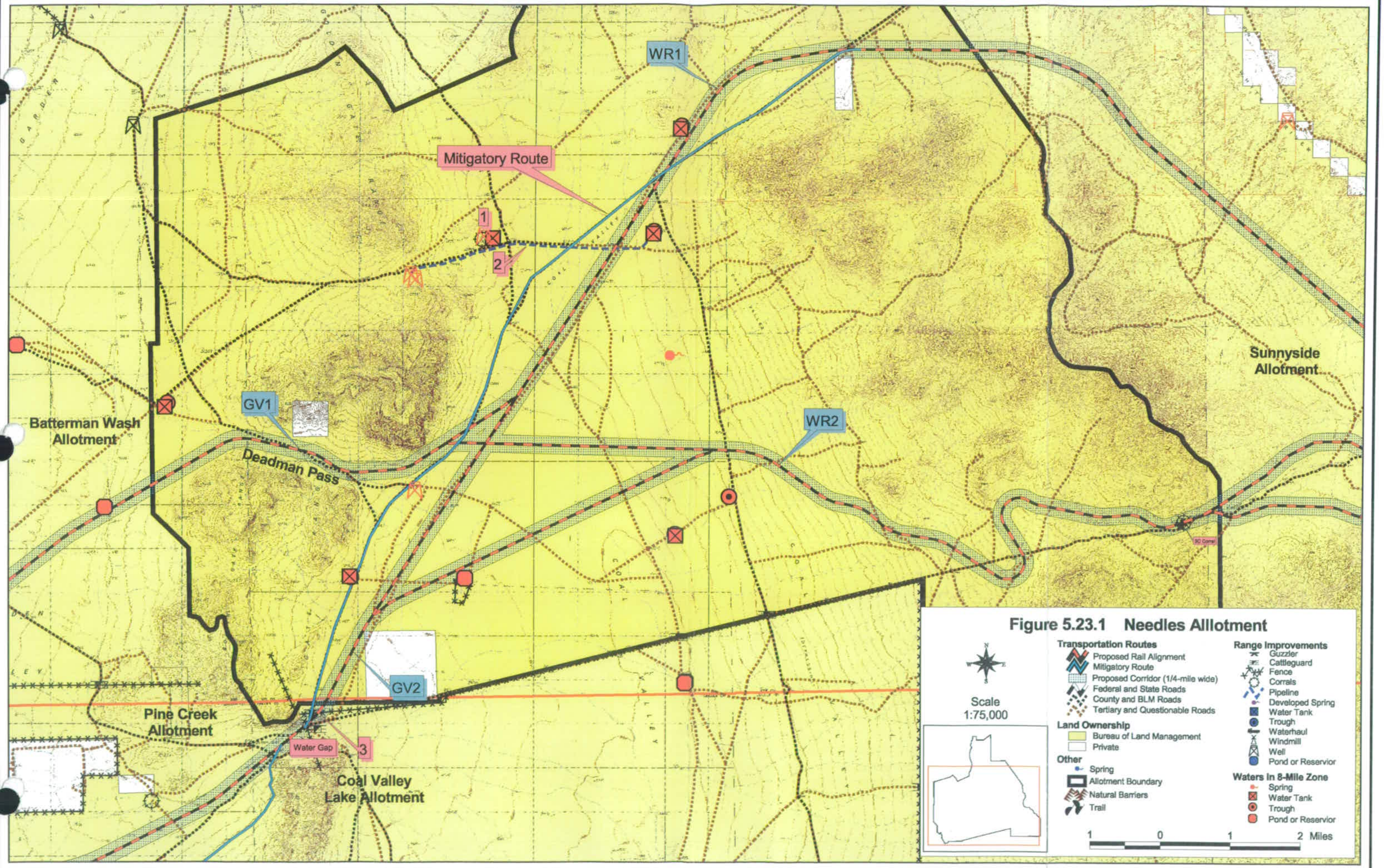


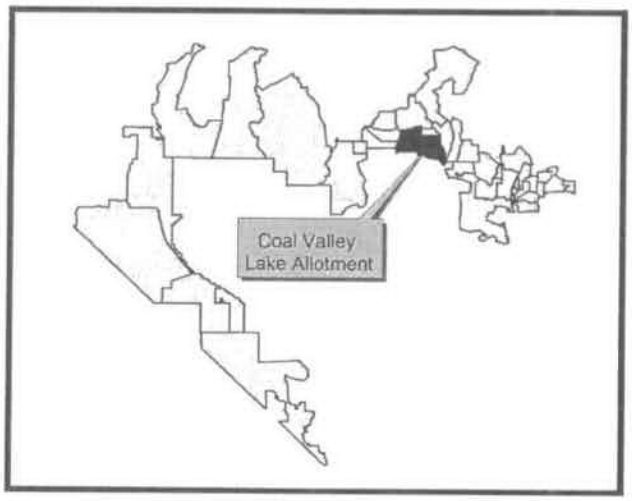
Figure 5.23.1 Needles Alllotment

5.24 COAL VALLEY LAKE ALLOTMENT

Permittee 1: Blue Diamond Oil Corporation
Contact: Gary Sprouse
Address: Box 150432
Ely, NV 89315

Permittee 2: Charles and Clayton Wadsworth
Contact: Charles Wadsworth
Address: Box 271
Alamo, NV 89001

Permittee 3: Thomas Steele
Contact: Robert Steele
Address: Box 355
Alamo, NV 89001



5.24.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The southeast corner of the Coal Valley Lake Allotment is located approximately 24 miles north of Hiko on the west side of State Route 318. The allotment is approximately twenty miles long east and west and ten miles wide north and south. The Water Gap is a topographical gap in the Golden Gate Range from where Cherry Creek flows (Map Reference 1). The Seaman Wash Road travels through the Water Gap. The Batterman Wash, Needles, Pine Creek, and Coal Valley Allotments all converge at the Water Gap, and this break in the mountain is very important to the movement of livestock and vehicles in the area. Cherry Creek is joined by Sand Creek, Pine Creek, and Cottonwood Creek in the Pine Creek Allotment to the west. These creeks originate in the higher elevations of the Southeast Unit of the Humboldt-Toiyabe National Forest. Because of the topography, and the convergence of the creeks to the west, the Water Gap is subject to flooding when there is heavy rain on top of snow. There is a general agreement among residents in the area that the Water Gap is not a good location for the proposed track and service road. See Tables 5.24.1 and 5.24.2, and Figure 5.24.1 for details of the allotment and railroad route.

Table 5.24.1 Coal Valley Lake Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT				TRACK COVERAGE	
Public	Private	Number/Type of Livestock		Season of Use	Total AUM	Miles	ROW Acres
115,174	None	Blue Diamond	373 sheep	11-01 / 2-28	294	GV2	
				3-01 / 4-10	101		
		Wadsworth	209 cattle	3-01 / 5-15	522		
				9-01 / 2-28	1,869	.78	20
		Steele	314 cattle	3-01 / 5-15	785		
				9-01 / 2-28	1,869		

Table 5.24.2 Coal Valley Lake Permitted Use AUMs

PERMITTEE	ACTIVE	SUSPENDED	TOTAL
Blue Diamond	395	0	395
Wadsworth	1,769	0	1,769
Steel	2,657	0	2,657
Total	4,821	0	4,821

GRAZING SYSTEM

Blue Diamond has winter-spring use. They do not use the west end of the allotment where the proposed track and service road are to be located.

Wadsworth has a spring-fall-winter operation.

Steele has a spring-winter-fall operation. Mr. Steele also has a permit in the Pine Creek Allotment just west of the Coal Valley Lake Allotment.

5.24.2 Fencing Preference

Two of the Permittees prefer that the track be fenced. Blue Diamond has no preference. It seems logical that the track will need to be fenced because of livestock traffic in the area, especially the Water Gap, and the potential for cow-train conflicts. This creates the need for a complex fencing and crossing design to address the volume of livestock, availability of water, and other issues addressed below.

5.24.3 Proposed Railroad Alignment

The proposed track and service road will cross Cherry Creek just as it comes into the Pine Creek Allotment.

5.24.4 Impacts and Mitigation

Because of the number of impacts and their complexity, it is essential that the BLM, DOE, the County Roads Department, the Nevada Department of Wildlife, the ranchers who utilize the Water Gap, and any other interested parties, meet to discuss the proposed route and impacts and mitigation before the track is staked. The following issues should be addressed:

1. The effect of flooding that may occur on the proposed track. What is the high water level as remembered by local residents?
2. Movement of cattle and bands of sheep through the Water Gap relative to construction of the proposed track and service road.
3. Keeping the County Road in use during construction.
4. Keeping Cherry Creek flowing during construction.
5. Mitigation of impacts to Cherry Creek.
6. Animal-train collisions and fencing needs.
7. Is the proposed route the best one for the railroad? Are there alternative routes that may have less impact?
8. Blending mitigation for the track and service road in this allotment with mitigation in the Pine Creek Allotment just to the west.

5.24.5 Alternate Route

Mr. Wadsworth suggests the proposed track and service road be routed through Murphy Gap. The contact for Permittee Thomas Steele agrees that there are major problems associated with alignment of the track and service road through the Water Gap, and also has concerns with this track as it passes through the Pine Creek Allotment.

Table 5.24.3 Coal Valley Lake Allotment Impacted Features

Impacted Features	GV1 Railroad Route
Stockwaters w/in 4 miles	1
Stockwaters w/in 1 mile	1
Fences (ea)	2
Roads (ea)	1
Trails (ea)	1
Pipelines (ea)	
Cherry Creek	1

The impacts and mitigation units for this allotment have not been analyzed as of the date of this report. See Section 5.24.4 for an explanation.

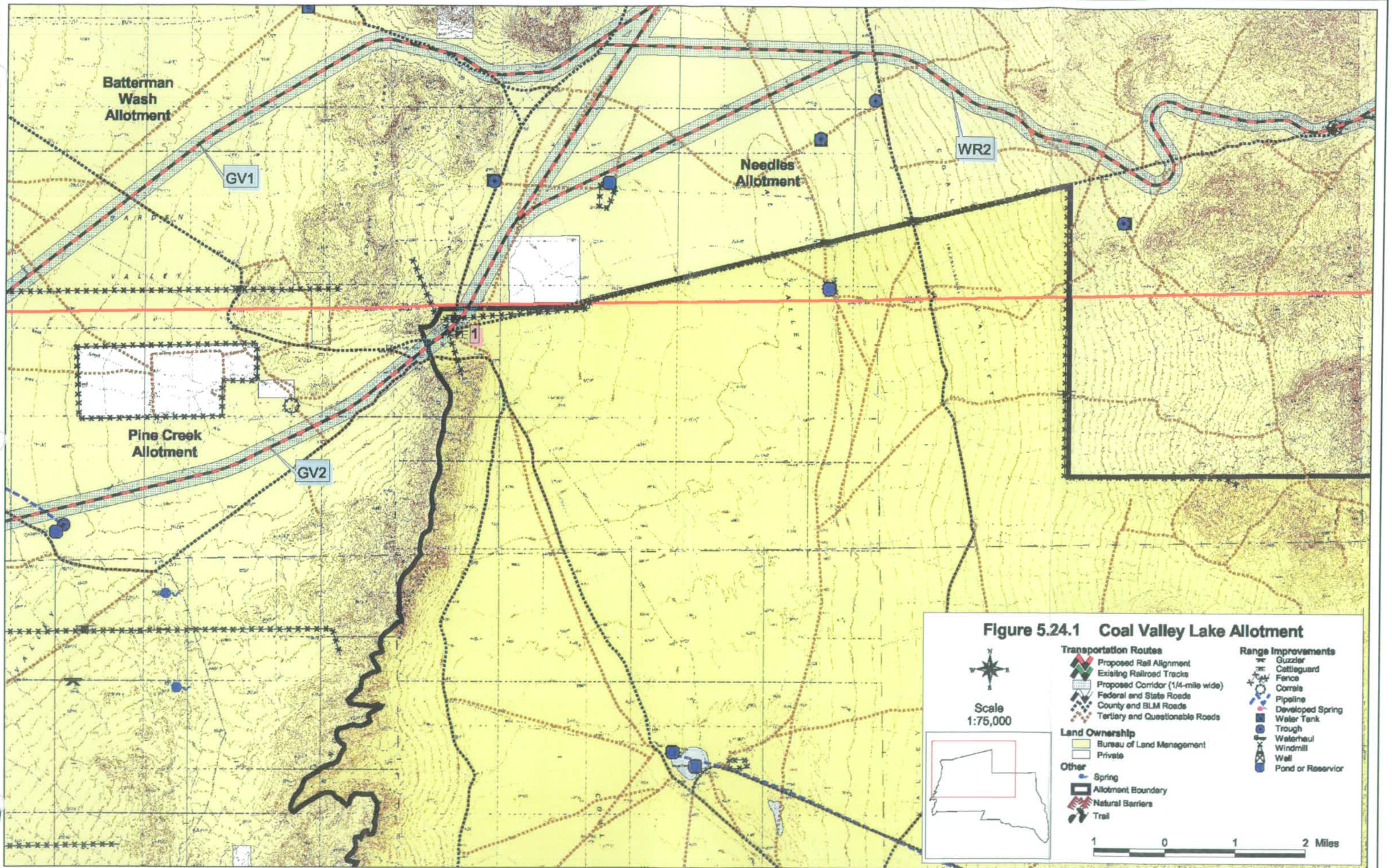
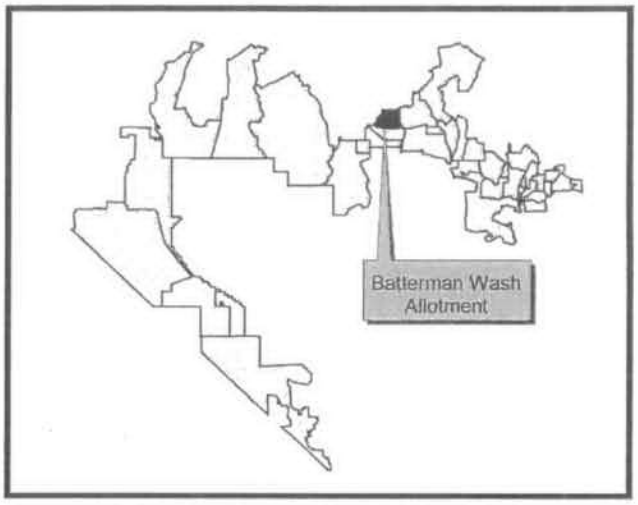


Figure 5.24.1 Coal Valley Lake Allotment

5.25 BATTERMAN WASH ALLOTMENT

Permittee: Gracian Uhalde
Contact: Gracian Uhalde
Address: P.O. Box 151088
Ely, Nevada 89315



5.25.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Permittee holds permits for six grazing allotments in a roughly thirty square mile area. The Batterman Wash Allotment sits at the northwest corner of the complex. The south boundary of the Batterman Wash Allotment is fenced. In addition to the Batterman Wash Allotment are the Worthington Mountain, West Timber Mountain, South Coal Valley, Black Bluff, and Murphy Gap Allotments. The six allotments are interlinked in this complex, and all six allotments are addressed here because they share a network of sheep and cattle trailing routes, cattle trucking routes, and water hauling routes. See Tables 5.25.1 and 5.25.2, and Figure 5.25.1 for details of the allotment and the railroad route. The shared trailing and hauling routes are illustrated on Figure 5.25.2.

Table 5.25.1 Batterman Wash Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**AUM**	**Miles**	**ROW Acres**
41,035	440	887 sheep	12-01 / 4-15	793	GV1	
		243 cattle	11-15 / 3-31	1,095	5.42	136
Total = 41,475		80 cattle	4-01 / 6-15	200		
		Total = 2,088				

Table 5.25.2 Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
2,093	0	2,093

Table 5.25.3 Peripheral Uhalde Impacted Allotments

ALLOTMENT NAME	GRAZING PERMIT		TOTAL AUMS
Worthington Mt.	3,200 sheep	12-15 / 4-10	2,462
	695 cattle	1-13 / 5-31	3,176
West Timber Mt.	822 sheep	12-01 / 4-15	736
S. Coal Valley	1,517 sheep	12-01 / 4-15	1,357
Black Bluff	293 sheep	12-01 / 4-15	262
Murphy Gap	735 sheep	12-01 / 4-15	657
			Total - 10,738

GRAZING SYSTEM

Sheep use is during the winter. Sheep go north for spring/summer/fall range in the northern part of White Pine County. Sheep are herded throughout the allotment.

Cattle use is winter/spring. The cattle are distributed through the allotment using established water sources, water hauling, and seasonal precipitation events. Some go north for summer/fall. Others go on the nearby National Forest or stay on the private meadows.

STOCKWATERS

The stockwaters are a mixture of wells, troughs, tanks, and ponds, plus creek and slough water.

WATER RIGHTS

The stockwaters are all vested, certified, or permitted under Nevada State Law. They are private property rights.

RANCH HEADQUARTERS

The Cherry Creek Ranch is located on the west end of the Batterman Wash Allotment, extending up Cherry Creek into the National Forest. The Ranch serves as the headquarters for the six-allotment complex and the hub for the entire operation including the trailing, trucking, and water hauling.

5.25.2 Fencing Preference

The Permittee has declined to express a fencing preference

5.25.3 Proposed Railroad Alignment

The Garden Valley 1 route is the railroad route through the Batterman Wash Allotment. The railroad will dissect the southeastern corner from the rest of the allotment.

5.25.4 Impacts and Mitigation Without Fencing

Because the six allotments are linked as described above by sheep and cattle trailing routes, trucking routes, and water hauling routes the impacts are as great or greater on the other five outlying allotments and the operation as a whole, than they are on Batterman Wash. Gracian Uhalde is adamant that there is no possible onsite mitigation that can keep the grazing

operation in business. Therefore, he has discussed impacts, but has declined to discuss mitigation options.

Impacts to Vegetation and Forage

Inside the 136 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

Impacts to Existing Fencing

The track passes through and impacts the south boundary fence of the allotment.

Impacts to Livestock Movement

The track will present a barrier and interfere with cattle movements and grazing habits to some degree. The deeper the cuts and fills, the more the interference.

Impacts to Stockwaters

The track impacts one well, two ponds, the slough, Cherry Creek, and Sand Creek, all of which lie within four miles of the track. The Slough Pond is directly in line with the right of way.

Impacts to Roads and Trails

Two roads are intersected and impacted by the track.

Impacts to Livestock Trailing

Sheep and cattle trailing is impacted at the Water Gap, and again where the track crosses the stock trails in the Cottonwood Allotment. The Water Gap is a livestock distribution hub for many ranchers in the area, and certainly for the Uhalde operation. The Cottonwood Allotment crossings are less congested than the Water Gap, but they are still severely impacted. Sheep in particular are notoriously difficult to make cross barriers they find suspicious. The Uhaldes had a trailing incident this past January taking a band of 1,800 sheep through Water Gap to Coal Valley where the snow was not so deep. The bridge over Cherry Creek in the Water Gap is 35 feet wide. It took three men and five dogs half an hour to convince the sheep to cross the bridge, despite that fact that the sheep had been over the bridge numerous times. This illustrates how ordinary crossing situations are a challenge enough, let alone situations that are exacerbated by a railroad.

Impacts to Livestock Trucking

The Uhaldes haul 10-15 truckloads of cattle north out of the Worthington Mountain Allotment about the first of June annually, using eighteen-wheeler stock trucks. The track will cross their route (shown in red on Figure 5-25-2) in Cottonwood Allotment. The Uhaldes also haul two loads of cattle on the same kind of trucks out of the West Timber Mountain Allotment. The loading corrals are in the track right of way. The track crosses the truck route here also, again shown in red.

Impacts to Stockwater Hauling

Depending on the temperature, which effects water consumption by stock, the Uhaldes haul water every day or every other day from Cherry Creek Ranch to the West Timber Mountain Allotment. This is also an eighteen-wheeler water tank truck. The route is shown in blue on the

map. The route goes through the Water Gap. Then the track crosses the route twice with the switchback on the west side of Timber Pass.

IMPACTS TO WATER GAP

The Water Gap is a highly congested focal point in the community with many uses and much traffic converging in one narrow gap in the mountain range. Cherry Creek drains through the gap. Several ranchers trail their livestock through. Livestock hauling trucks and water hauling trucks use it frequently. There is a constant stream of automobile and pickup truck traffic by hunters, recreationists, sightseers, ranchers, and government agencies. A fence that separates grazing allotments goes through the Water Gap. The existing use situation will make it extremely difficult to design a railroad passage while still allowing for all of the other uses.

IMPACTS TO LIVESTOCK FROM COLLISIONS

The train would pose a risk of livestock death from collisions.

IMPACTS TO OVERALL LIVESTOCK OPERATION

The proposed railroad will create havoc to the livestock operation, particularly the livestock trailing, trucking, and water hauling. Forage and vegetative cover will be lost on the right of way and throughout the allotment. There will be intangible loss of solitude, tranquility, and visual resources, and there will be impacts to valuable private property rights consisting of water rights under Nevada State Law. Gracian Uhalde, like his father and grandfather before him, has spent his life building and developing the Cherry Creek Ranch Grazing Complex for his four sons. Three of the sons are in their twenties, living and working on the ranch, and one is still in college. They believe the proposed railroad will destroy the livestock operation, and their dream, and put them out of business.

5.25.5 Impacts With Fencing

IMPACTS TO VEGETATION AND FORAGE

Impacts to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

IMPACTS TO EXISTING FENCING

Same as without fencing.

IMPACTS TO LIVESTOCK MOVEMENT

With fencing the track presents an absolute barrier to livestock movement.

IMPACTS TO STOCKWATERS

Same as without fencing.

IMPACTS TO ROADS AND TRAILS

Same as without fencing, with the additional impact of the fencing creating a barrier across the roads.

IMPACTS TO SHEEP AND CATTLE TRAILING

Same as without fencing, with the additional impact of the fencing creating an additional barrier to livestock movement.

Impacts to Livestock Trucking

Same as without fencing, with the additional impact of the fencing creating an additional barrier to truck movement.

Impacts to Stockwater Hauling

Same as without fencing, with the additional impact of the fencing creating an additional barrier for truck movement.

Impacts to Livestock from Collisions

Fencing the right of way would eliminate most of the risk of livestock death from collisions. The residual risk would be from livestock getting inside the fenced right of way by either getting through the fence, or by gates being left open. However, that is an impact in itself as it takes time and effort to remove livestock trapped in the right-of-way.

Impacts to Overall Livestock Operation

Same as without fencing, with additional impacts due to the nature of fencing.

On Site Mitigation

The Permittee declined to discuss on site mitigation because he does not believe there is any possible on site mitigation that could keep them in business.

Off Site Mitigation

Rather than use the presently proposed route, follow Highway 93 from Caliente west to Highway 375, and then cut across the Nevada Test and Training Range to Yucca Mountain. This alternate route would avoid most of the disruption to the 32 grazing allotments, and all the associated private property rights.

Uhalde Review of Draft Report

Pursuant to his review of the draft report, Mr. Uhalde submitted an "Open Letter to DOE Officials" with the request that the letter with three attachments be included in the analysis of the Batterman Wash Allotment. As requested, the letter and attachments follow.

May 1, 2005

Open Letter to DOE Officials:

The report does not discuss impacts during the study and construction phases. In March 2004, when we first found out because no one had let us know anything in 20 years, we sent a letter to then Secretary Spencer Abraham, Department of Energy, and Secretary of the Interior Gale Norton, and since then to Samuel Bodman, asking then what this project meant to our ranching operation, to our family, and to our neighbors, during study, planning, operation. To this day, May 1, 2005, we have heard no answers, did not even get a letter back. I have enclosed a copy of the three letters.

As of May 1, 2005 our rangeland resource has already been impacted as far as twenty miles away from the proposed corridor. A survey crew has been putting out targets for aerial photographs using four ATVs. On April 29, 2005 our RangeCon Troy Grooms and myself saw a camp of three vehicles approximately two miles south of Water Gap, with a motorcycle parked and camped on a piece of pristine range belonging to Robert Steele. We assumed this was DOE related, or they were saboteurs, since one vehicle had an African license, one a Texas plate, and one an Illinois plate.

We have no answers to date to possibly even come up with all of the impacts imaginable. More examples are: how many construction workers will be in Garden Valley and Coal Valley at any given time? What will they be doing in their off hours? Will they be out exploring our pristine rangelands, littering, etc.? If these valleys see more than four vehicles at a time we feel crowded. Where will the ballast and fill for the railroad come from? Are we going to have big pits in the valleys and on the benches? What will the dust and noise factors be? Are going to have to wear dust masks and earplugs to survive? Where will the water come from? How much will be used in Garden Valley and Coal Valley? How much garbage will we have to look at in our valleys? How about maintenance during the operation of the railroad? How many roads and how much maintenance will be required? Along the track will there be an inspection road? How high and wide will the railroad bed be? How will the vibration during spring thaw affect the surrounding area?

These are just a few impacts and fears we can imagine at this point. How can we address mitigation when we have no answers? We cannot imagine how we are going to survive this, let alone have any kind of quality lifestyle that we are accustomed to, and have had for four generations.

Should DOE care to get into specifics instead of secrets, maybe we could come up with a mitigation plan that includes projects such as irrigation pivots, brush beating, and additional water developments. However, until someone with real authority and understanding comes forth, we see no possible avenue to work out a mitigation plan.

Sincerely,

Gracian N. Uhalde

Enc.: Letter to Spencer Abraham
Letter to Gale Norton
Letter to Samuel Bodman

John Uhalde and Company/Uhalde Ranch
Ely, Nevada

January 26, 2004
The Honorable Spencer Abraham
Secretary
US Department of Energy

Dear Secretary Abraham.

I am Gracian Uhalde. I am a Nevada rancher. Between Christmas and New Years, on December 29, 2003, you filed papers in the US Federal Register that impact our ranch No one told us. We learned about your proposal only in the past few days We did not learn about it from anyone at the Interior or Energy Departments. Since no one in the Federal Government discussed this with me, I wish to meet with you to discuss your proposal and to learn how it impacts my family ranch.

According to the Notice in the Federal Register, the Departments of Energy and Interior propose to "withdraw" certain Federal lands in Nevada in order to construct a rail line for the Yucca Mountain storage project. Your action begins that process. Some 40 miles of that rail line is located on BLM lands that our family - now in its fourth generation - has grazed for years and years.

The Federal Government has spent, over the past 10 or more years, hundreds of millions of dollars planning, designing and evaluating the Yucca Mountain project. Your Notice in the Federal Register is six and a half pages. One summary paragraph is devoted to the actual withdrawal. More than three pages list 800 Section numbers withdrawing more than 300,000 acres. It is not very informative.

Your department undoubtedly spent lots of money reviewing land maps and identifying these particular lands for the rail corridor. Neither DOE nor DOI spent a nickel to meet or talk to a single citizen - the people who ranch these lands.

No one thought to drive out to my ranch and tell me anything. I spoke to some of my ranching neighbors, and no one from the Interior Department or Energy Department has talked to them either We all have the same questions. They're pretty straightforward and shouldn't be too complicated After all this time and all this effort, I expect you know, at least in general terms, how the construction of this rail line will impact our ranching operations. And, further, I expect you to know how, once built and operational, the rail line will impact our ranching operations. Most of all, we deserve to know whether or not we can ranch at all

If DOE and DOI can spend the time, effort and expense to itemize 800 sections in land maps, then surely at least one official could drive out to the ranch and tell us what's going on. Or send us a letter Or call. That did not happen

This is not right. It is not fair. This is not how our Government should treat its citizens. Since no one working for you would come out and talk to us, I request a meeting with you at the Uhalde Ranch. My telephone number is (775) 962-1563

Sincerely,

Gracian Uhalde

John Uhalde and Company/Uhalde Ranch
Ely, Nevada

January 26, 2004

The Honorable Gale A. Norton
Secretary
US Department of the Interior
18th and C Streets, N.W.
Washington, D.C. 20240

Dear Secretary Norton.

I am Gracian Uhalde. I am a Nevada rancher. Between Christmas and New Years, on December 29, 2003, you filed papers in the US Federal Register that impact our ranch. No one told us. We learned about your proposal only in the past few days. We did not learn about it from anyone at the Interior or Energy Departments. Since no one in the Federal Government discussed this with me, I wish to meet with you to discuss your proposal and to learn how it impacts my family ranch.

According to the Notice in the Federal Register, the Departments of Energy and Interior propose to "withdraw" certain Federal lands in Nevada in order to construct a rail line for the Yucca Mountain storage project. Your action begins that process. Some 40 miles of that rail line is located on BLM lands that our family - now in its fourth generation - has grazed for years and years.

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No one thought to drive out to my ranch and tell me anything. I spoke to some of my ranching neighbors, and no one from the Interior Department or Energy Department has talked to them either. We all have the same questions. They're pretty straightforward and shouldn't be too complicated. After all this time and all this effort, I expect you know, at least in general terms, how the construction of this rail line will impact our ranching operations. And, further, I expect you to know how, once built and operational, the rail line will impact our ranching operations. Most of all, we deserve to know whether or not we can ranch at all.

If DOE and DOI can spend the time, effort and expense to itemize 800 sections in land maps, then surely at least one official could drive out to the ranch and tell us what's going on. Or send us a letter. Or call. That did not happen.

Madam Secretary, you have stated repeatedly that the cornerstone of your appointment as Secretary is "consultation, cooperation and communication, all in the name of conservation."

There was no consultation.
There was no cooperation.
There was no communication.

This is not right. It is not fair. This is not how our Government should treat its citizens.

Since no one working for you would come out and talk to us, I request a meeting with you at the Uhalde Ranch. My telephone number is (775) 962-1563.

Sincerely,

Gracian Uhalde

Gracian Uhalde

March 18, 2005

Samuel Bodman
Secretary
US Department of Energy
Washington, DC

Dear Mr. Secretary,

I am writing to inquire about the Caliente Rail line, one element of the Yucca Mountain Project.

The existing Caliente route impacts my ranch. Notwithstanding DOE's preference for the Caliente Rail line, I have recently learned that the department is evaluating and studying other rail alignments, one or more that likely impacts my ranch even more. Further, I understand that DOE has prepared maps of which display these new rail lines.

DOE, however, is drawing lines on maps that impact my ranch, but is unwilling to discuss, share or communicate with me or my family about this new initiative. DOE is expending taxpayer dollars on actions and activities that harm and undermine my ranch. Isn't it time that the Uhalde family was included in those discussions.

I request to know what is happening to me and my ranch.

Will you please tell me?

Sincerely,

Gracian N. Uhalde
Uhalde Ranch
P.O. Box 151088
Ely, Nevada 89315
775-289-0599

Table 5.25.4 Batterman Wash Allotment Impacted Features

Permittee Fencing Preference: Permittee Declined

Batterman Wash Allotment Impacted Features	GV1 Railroad Route
Stockwaters w/in 4 miles	6
Stockwaters w/in 1 mile	4
Fences (ea)	1
Roads (ea)	1
Trails (ea)	1
Pipelines (ea)	
Water Gap Crossing	1
Garden Valley Crossing	1
Creek Crossings	3

Table 5.25.5 Batterman Wash Allotment Mitigation Project Comparison

Proposed Mitigation Units	GV1	
	Without Fencing	With Fencing
Fence (mi)		10.8
Gates (ea)	2	14
Railroad Cattleguards (ea)	1	1
Road Cattleguards (ea)	1	5
Road Crossings (ea)	1	1
Trail Crossings (ea)	1	1
Cattle Crossings (ea)		
Sheep Crossings (ea)	4	4
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Other: Water Gap Crossing	1	1
Other: Garden Valley Crossing	1	1
Creek Crossings	3	3
Unspecified Stockwaters		
Troughs (ea)		
Wells (ea)		
Springs (ea)		
Other: Pond	2	2

Note: In order to avoid a gap in data for the EIS, RCI estimated the mitigation units in Table 5.25.5. Furthermore, all mitigation units are estimates because they cannot be accurately determined until the centerline of the railroad track is staked and design plans are available.

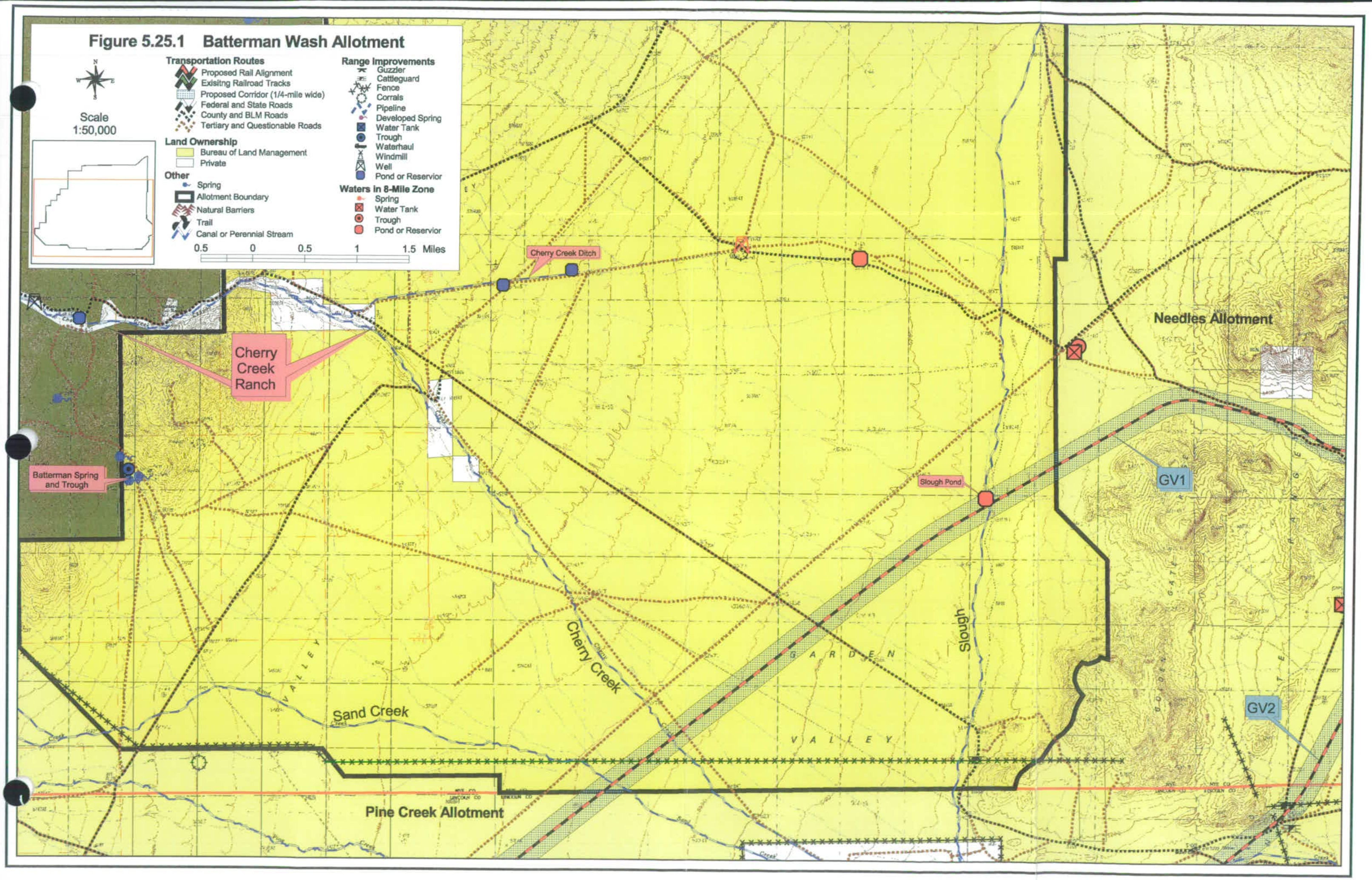


Figure 5.25.1 Batterman Wash Allotment
Scale
1:50,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Canal or Perennial Stream
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
Waters in 8-Mile Zone
Spring
Water Tank
Trough
Pond or Reservior
0.5 0 0.5 1 1.5 Miles
Cherry Creek Ditch
Cherry Creek Ranch
Batterman Spring and Trough
Needles Allotment
Slough Pond
GV1
GV2
Cherry Creek
Slough
Sand Creek
GARDEN VALLEY
Pine Creek Allotment

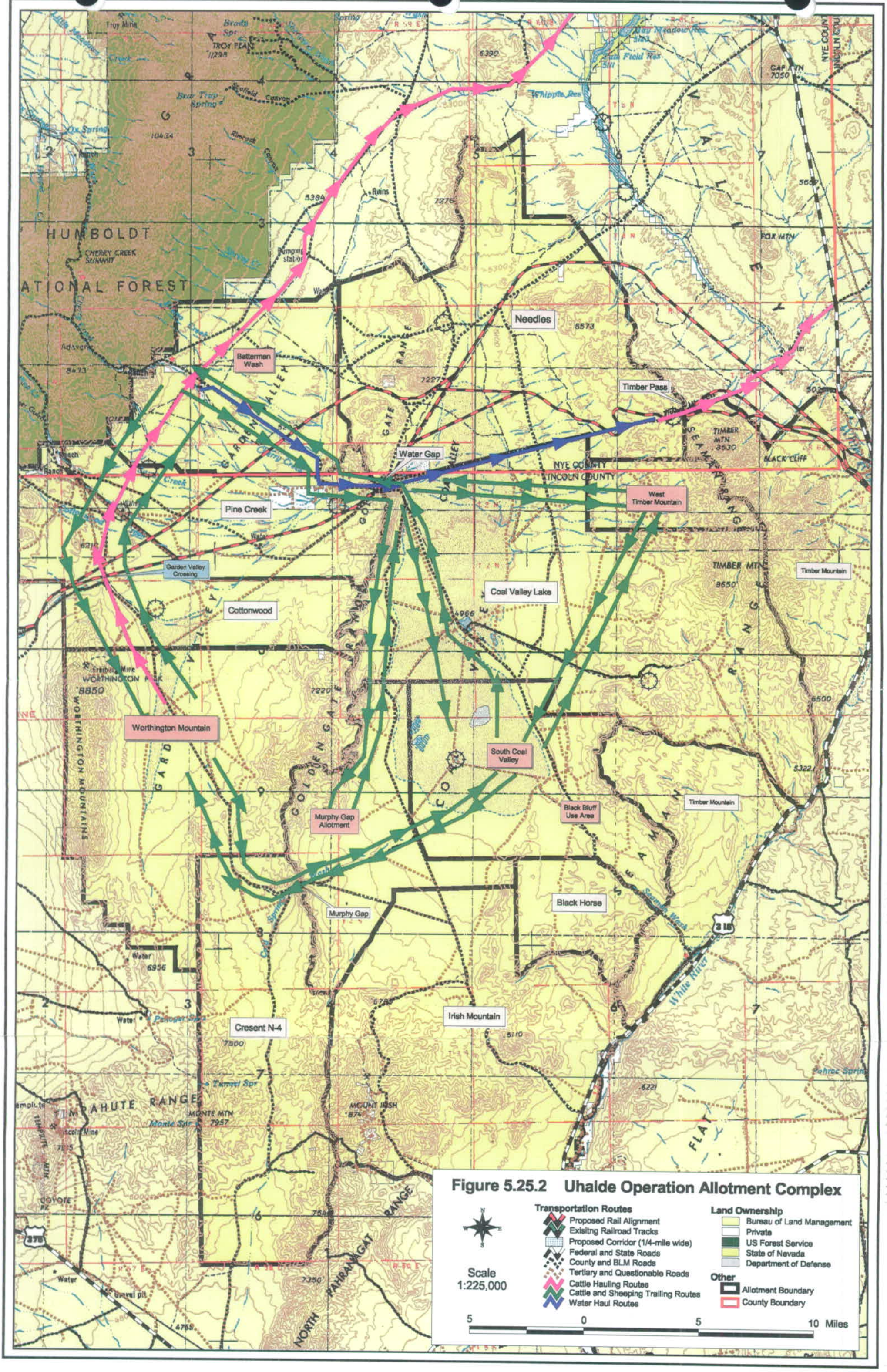
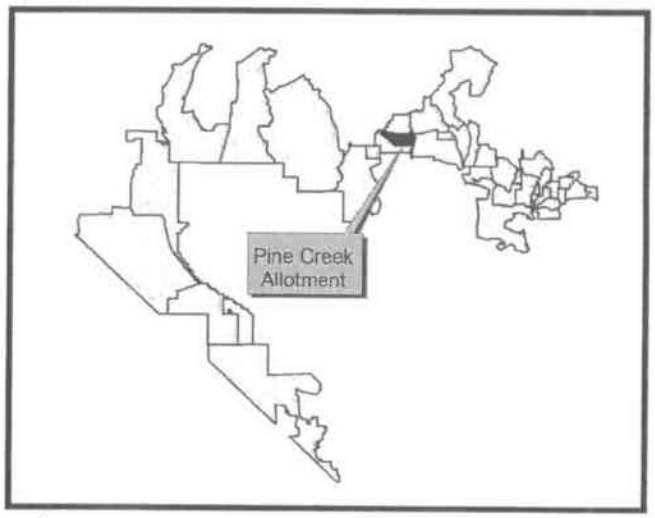


Figure 5.25.2 Uhalde Operation Allotment Complex

5.26 PINE CREEK ALLOTMENT

Permittee: Thomas Steele
Contact: Robert Steele
Address: Box 355
Alamo, NV 89001



5.26.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Pine Creek Allotment is located 35 miles northwest of Hiko. The northwest side of the allotment joins the southeast unit of the Humboldt-Toiyabe National Forest. The allotment is approximately five miles wide north and south and thirteen miles long east and west. There is fencing around most of the allotment; where fencing is absent there is a barrier of very steep rocky ground. The allotment itself is not fenced into pastures. Cottonwood Creek, Pine Creek, and Sand Creek converge with Cherry Creek on private land at Map Reference 15. From this point Cherry Creek flows east through the Water Gap. The flow of all four creeks after they converge is sufficient to produce a very large volume of water. All of the creeks have their origin in high elevations, and when rain falls on snow the runoff potential is very high. See Tables 5.26.1 and 5.26.2, and Figure 5.26.1 for details of the allotment and railroad route. (Note: the fence and boundary line as depicted on Figure 5.26.1 do not match on the east end of the allotment).

Table 5.26.1 Pine Creek Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	Private	Number/Type of Livestock	Season of Use	Total AUM	Miles	ROW Acres
33,211	1,617	331 cattle	5-01 / 12-31	2,666	GV1	
					4.7	118
Total – 34,865					GV2	
					9.58	240
					Mitigatory Route	
					13.8	345

Table 5.26.2 Pine Creek Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
2,667	0	2,667

GRAZING SYSTEM

Summer into winter, although cattle may come out early. Cattle are free to move about the allotment and graze as they choose.

Of note is the fact that several herds of cattle and bands of sheep travel through portions of the allotment and use the Water Gap at the east end of the allotment. See the discussion of the Water Gap in the Coal Valley Allotment analysis.

STOCKWATER DESIGN

The allotment is very well watered. In addition to the creeks there is a pipeline that feeds five tanks with dirt pits.

5.26.2 Fencing Preference

The Permittee feels that the final chosen track route should be fenced.

5.26.3 Proposed Railroad Alignment

GV1 and the associated service road enter the allotment from the northeast out of the Batterman Wash Allotment (Map Reference 17). The track will travel in a southwest direction for approximately 4.7 miles, and exit into the Cottonwood Allotment (Map Reference 18).

5.26.4 Impacts and Mitigation Without Fencing – GV1

The Permittee believes that the impacts from GV1 are not nearly as great as those with GV2

IMPACTS TO VEGETATION AND FORAGE

Inside the 118 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The proposed track and service road will pass through a fence as it enters and exits the allotment, leaving openings for cattle to wander out of the allotment (Map References 17, 18).

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO LIVESTOCK MOVEMENT AND PASTURE DESIGN

GV1 separates the higher elevations on the west side of the allotment from the lower elevations to the east, splitting the allotment into two areas labeled on Figure 5-26 as the High Pasture and the Low Pasture. Even without the fence the track will be an impediment to the

movement of cattle. Cattle will work up and down the track causing concentrated use and heavy grazing along the track.

MITIGATION

Construct five cattle crossings consisting of earth ramps with approaches not to exceed 25 percent grade. Two of these may be constructed in conjunction with road or trail crossings.

IMPACTS TO STOCKWATER

GV1 will reduce the service area of the water tanks and dirt pit at Map Reference 23. The track will cut across a ditch right-of-way in the Cottonwood Allotment at Map Reference 2, and run across Pine Creek at Map Reference 3, impacting livestock watering on the allotment. The track will cut across a pipeline at Map Reference 4.

MITIGATION

- Install a new trough and dirt pit at Map Reference 1 to avoid reduced service area of the existing water tank and dirt pit at Map Reference 23.
- Make a passage for water from the ditch at Map Reference 2 to flow under the track and service road.
- To reduce impacts to livestock watering at Pine Creek, construct a bridge or a culvert of sufficient size to allow for run off from the high rangeland area of the allotment down to the Low Pasture (Map Reference 3). In some years run off is of high volume. During construction water must be kept flowing downstream of the structure to allow cattle access to water.
- Place a large pipe under the track and service road to allow for the passage of the existing pipeline through the larger pipe (Map Reference 4). During construction enough water must be kept flowing through the pipeline to keep the water tanks full.

IMPACTS TO ROADS AND TRAILS

The proposed track and service road will cross one road at Map Reference 4 and one trail at Map Reference 5, stopping vehicle movement.

MITIGATION

Construct a road crossing at Map Reference 4 with approaches not to exceed six percent grade; and a trail crossing at Map Reference 5 with approaches not to exceed twelve percent grade. These can also be used as cattle crossings if the right-of-way is unfenced.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is a risk of cattle getting on the track and being hit by a train.

MITIGATION

Fence the right-of-way to reduce the risk of animal-train collisions. The Permittee feels strongly that the risk is sufficient to warrant fencing the right-of-way.

IMPACTS TO AESTHETIC VALUE

The proposed track will be located four to five miles from the ranch headquarters. The Permittee believes it will be audible and may be visible, but offers no mitigation suggestions.

5.26.5 Impacts and Mitigation With Fencing – GV1

Fencing the GV1 right-of-way will require 9.4 miles of fence.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The amount of forage loss cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

GV1 will cross a fence as it enters and exits the allotment (Map References 17, 18), leaving openings for cattle from the Batterman Wash and Cottonwood Creek allotments to wander onto the track and risk being hit by a train.

MITIGATION

Install a railroad cattleguard and road cattleguard on the service road at each opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO PASTURE DESIGN AND LIVESTOCK MOVEMENT

Fencing the right-of-way will create a definite barrier to cattle movement between the High Pasture and the Low Pasture. Cattle will concentrate use along the fenced right-of-way.

MITIGATION

Construct five cattle crossings with approaches not to exceed 25 percent grade. The road and trail crossings cannot be used as cattle crossings if the right-of-way is fenced.

Gates will be required at each cattle crossing, one on each side of the track. The gates should be sixteen-foot heavy steel, hinged from ten-inch well casings set in concrete. The Permittee can lock the gates when not in use to prevent the gates being left open. This will entail a total of five crossings and ten gates.

The Permittee may consider the option of underpasses rather than cattle crossings with the fencing option. Underpasses may be a better alternative where fills are sufficient for such structures to be considered.

IMPACTS TO ROADS AND TRAILS

GV1 will cross one road and one trail (Map References 4, 5).

MITIGATION

Construct a road crossing at Map Reference 4 with approaches not to exceed six percent grade; and a trail crossing at Map Reference 5 with approaches not to exceed twelve percent grade. Install one road cattleguard on each side of the right-of-way on the road and the trail.

All other impacts and mitigation remain the same as discussed under the *Without Fencing* alternative.

5.26.6 Impacts and Mitigation Without Fencing - GV2

Proposed track GV2 enters the allotment from the east from the Coal Valley Lake Allotment through the Water Gap (Map Reference 19). The track will run in a southwest direction across the allotment for 9.6 miles, where it will leave the allotment near the southwest corner (Map Reference 24). The potential for flooding makes the Water Gap a poor choice of route for the

proposed railroad. See the analysis of issues with the Water Gap in the Coal Valley Lake Allotment section (Section 5.24).

IMPACTS TO VEGETATION AND FORAGE

Inside the 240 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

GV2 will cross a fence as it enters the allotment (Map Reference 19) and as it exits (Map Reference 24). This will leave openings for livestock to wander out of the allotment, or livestock from other allotments to enter the Pine Creek Allotment, at will.

MITIGATION

Install a railroad cattleguard and a service road cattleguard at each fence opening, for a total of two railroad cattleguards and two service road cattleguards.

IMPACTS TO PASTURE DESIGN AND LIVESTOCK MOVEMENT

GV2 and the service road will split the allotment into two areas. The smaller of the two areas is the South Side, and the larger is the North Side as labeled on Figure 5-26. The South Side pasture will be approximately nine miles long, with a width of about 3.5 miles on the east end narrowing to about one mile on the west end, creating a long alleyway. The North Side occupies the rest of the allotment acreage. The track presents a problem in that it will impede movement of cattle from the South Side to the North Side. The pasture configuration of the South Side Pasture will likely cause odd grazing patterns with heavy concentration of use along the track. The vegetation along Cottonwood Creek will be heavily used as well.

MITIGATION

Construct a cattle crossing consisting of earth ramps on each side of the track with approaches not to exceed 25 percent grade, for each mile of track. The exact location will be determined after the centerline of the railroad is staked. This will entail a total of ten cattle crossings. Four of these crossings can be constructed as dual purpose crossings in conjunction with road and trail crossings.

IMPACTS TO STOCKWATERS

GV2 will:

1. Cross a pipeline at Map Reference 13.
2. Cross a proposed pipeline at Map Reference 8.
3. Come within 1/8 mile of a water storage tank and a water trough at Map Reference 25, increasing the risk of animal-train collisions.

4. Cross Cottonwood Creek at Map Reference 18 and Map Reference 22. The track will block the flow of water. This crossing location may cause concentration of livestock next to the track.
5. Cross Cherry Creek at Map Reference 17, increasing the potential for livestock concentration and increasing the risk of animal-train collisions.

MITIGATION

- Install a water trough at Map Reference 1.
- Construct a pipeline from Map Reference 23 to Map Reference 6 (2.75 miles of pipeline and one trough) and install a trough at Map References 6 and 7. The proposed pipeline will cross the creek on the same structure as the track and service road, at Map Reference 8.
- Reconstruct the pipeline between Map References 23 and 13 (2.5 miles of pipeline reconstruction).
- Construct a pipeline crossing at Map Reference 13. Water flow must be maintained during construction.
- Construct a pipeline as detailed on Figure 5.26.1 to Map Reference 9, and install two troughs at Map References 9 and 10. The pipeline will cross the creek on the same structure as the track and service road, at Map Reference 18.

IMPACTS TO ROADS AND TRAILS

The proposed track crosses a major road in three places (Map References 12, 15, and 17), and three trails (Map References 16, 20, 21).

MITIGATION

Install road crossings at the three points where the track crosses the road, with approaches not to exceed six percent grade. The crossings can double as cattle crossings.

IMPACTS TO LIVESTOCK FROM COLLISIONS

There is a risk of cattle getting on the track and being hit by a train. The Permittee feels strongly that the potential for animal-train collisions is high 1) because of potential livestock concentration where the track crosses Cherry Creek and Cottonwood Creek; and 2) because of the division of the allotment by the track, and cattle attempting to cross from one side of the allotment to the other.

MITIGATION

Fence the right-of-way.

IMPACTS TO CREEK CROSSINGS

The proposed track will cross Cherry Creek at Map Reference 19, in the Water Gap. It will also cross Cottonwood Creek at two points (Map References 18, 21).

MITIGATION

During construction of the track it is important to keep water flowing in the creeks. Cherry Creek may require a bridge. This mitigation will entail three creek crossings.

5.26.7 Impacts and Mitigation With Fencing – GV2

Fencing the GV2 right-of-way will require 19.2 miles of fence, and will exclude 240 acres from the rest of the allotment.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The amount of forage loss cannot be determined until the right-of-way is staked. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

GV2 and the service road will cross a fence as they enter from the Coal Valley Lake Allotment to the east (Map Reference 17) and as they exit into the Cottonwood Allotment to the west (Map Reference 24). This will leave openings for cattle from the adjoining allotments to enter the right-of-way and be hit by a train.

MITIGATION

Install a railroad cattleguard and a road cattleguard on the service road at each opening, for a total of two railroad cattleguards and two road cattleguards.

IMPACTS TO PASTURE DESIGN

Fencing the right-of-way will create a definite boundary between the South Side Pasture and the North Side Pasture, and prevent movement of cattle across the right-of-way.

MITIGATION

Construct a set of gates in addition to the cattle crossings described in the *Without Fencing* alternative. The gates should be sixteen-foot heavy steel hinged on ten-inch well casings set in concrete. The Permittee can lock the gates to prevent them being left open. This will entail a total of twenty gates, two at each of the previously described cattle crossings.

Underpasses are an alternative to cattle crossings with gates. Underpasses could be ungated for cattle to pass through at will, or gated for more control of livestock movement. Each underpass would require two road cattleguards on the service road.

A third option would be a combination of underpasses and cattle crossings with gates. The amount of cut and fill will help to determine where underpasses are a viable option. The Permittee will need to determine the best possible mitigation after the right-of-way is staked.

IMPACTS TO STOCKWATERS

The impacts to stockwaters if the right-of-way is fenced are the same as with the *Without Fencing* alternative. However, with fencing the impacts to stockwaters become more critical.

MITIGATION

Mitigation is the same as that discussed under the *Without Fencing* alternative.

IMPACTS TO ROADS AND TRAILS

The impacts to the roads at Map References 12, 15, and 19, and the trails at Map References 16, 20, and 21 are the same as those discussed under the *Without Fencing* alternative. Each road or trail will require a road cattleguard on each side of the right-of-way.

MITIGATION

Mitigation is the same as that detailed under the *Without Fencing* alternative, except two road cattleguards will need to be constructed at each crossing. With fencing, the road and trail

crossings can double as cattle crossings, with the installation of gates in the fence on each side of the right-of-way.

The Permittee is opposed to both of the proposed track route options. However, he much prefers GV1 to GV2. GV1 will be less disruptive to cattle management. GV2 will cause problems for the South Side Pasture. The South Side Pasture will be parallel to the creek. There are problems with the track alignment through the Water Gap as well. See the full discussion of the Water Gap in the Coal Valley Lake Allotment analysis.

5.26.8 Impacts and Mitigation Without Fencing – Mitigatory Route

If GV2 is the chosen route, then a change in this route as it passes through the Pine Creek Allotment should be given consideration, detailed as follows.

Align the track at the west edge of the hills on the east side of the allotment, to travel southwest until it reaches the southern boundary of the allotment, then west along the fence boundary to the southwest corner of the allotment, to turn northwest to join the original GV2 option. This alternative will need to be examined onsite to determine the feasibility.

IMPACTS TO VEGETATION AND FORAGE - UNFENCED

Inside the 345 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The railroad will pass through a fence as it enters the allotment and as it exits the allotment, leaving an opening for livestock to drift in and out of the allotment.

MITIGATION

Install a railroad cattleguard on the track and a road cattleguard on the service road at each fence intersection.

IMPACTS TO LIVESTOCK MOVEMENT

The railroad will impede movement of livestock to the hills at the east end of the allotment.

MITIGATION

Construct five cattle crossings between the Water Gap and the south fence where the railroad exits the allotment. Construct crossings with approaches not to exceed 25 percent grade.

IMPACTS TO STOCKWATERS

The railroad will impede access to stockwater sources throughout the allotment.

MITIGATION

Mitigation is the same as detailed in the GV2 Additionally, develop an unspecified water source east of the railroad.

IMPACTS TO ROADS AND TRAILS

The railroad will cross one road in the Water Gap (Map Reference 17) and three trails (Map References 27, 28, 29).

MITIGATION

Construct a road crossing on the road with approaches not to exceed six percent grade; and a trail crossing on each of the trails with approaches not to exceed twelve percent grade.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Leaving the right-of-way unfenced increases the risk of animal-train collisions.

MITIGATION

The Permittee feels the danger of livestock death is sufficient to warrant fencing the right-of-way.

5.26.9 Impacts and Mitigation With Fencing – Mitigatory Route

Fencing the right-of-way will require 27.6 miles of fencing. This total includes fencing that may be required to replace the boundary fence at the Cottonwood Allotment, which could require repair after construction.

IMPACTS TO VEGETATION AND FORAGE

Impacts to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

Impacts to existing fence are the same as detailed under the *Without Fencing* alternative, with the additional impact of openings in the fence at the entry and exit point that increase the risk of animals being trapped in the right-of-way, and possible animal-train collisions.

MITIGATION

Install a railroad cattleguard on the railroad and a road cattleguard on the service road at each fence intersection.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing the right-of-way will create a barrier to livestock movement to the hills at the east end of the allotment.

MITIGATION

Construct the five cattle crossings detailed in the *Without Fencing* alternative, and install a set of gates at each crossing.

IMPACTS TO STOCKWATERS

Same as detailed under the *Without Fencing* alternative.

Impacts to Roads and Trails

The railroad will cross one road and three trails. Install a cattleguard and a gate on each side of the right-of-way at each road and trail intersection.

Table 5.26.3 Pine Creek Allotment Impacted Features

Permittee Fencing Preference: With Fence

Impacted Features	GV1	GV2	Mitigatory Route
Stockwaters w/in 4 miles	11	9	3
Stockwaters w/in 1 mile	7	6	1
Fences (ea)	2	2	2
Roads (ea)	1	3	2
Trails (ea)	1	3	1
Pipelines (ea)	1	3	1
Creek Crossings	2	3	1

Table 5.26.4 Pine Creek Allotment Mitigation Project Comparison

Proposed Mitigation Units	GV1		GV2		Mitigatory Route	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)		9.4		19.16		27.6
Gates (ea)		10		32		22
Railroad Cattleguards (ea)	2	3	2	2	2	2
Road Cattleguards (ea)	2	3	2	14	6	12
Road Crossings (ea)	1	1	3	3		
Trail Crossings (ea)	1	1	3	3	4	4
Cattle Crossings (ea)	5	5	10	10	5	5
Sheep Crossings (ea)						
Pipeline Construction (mi)			6.5	6.5	6.5	6.5
Pipeline Crossings (ea)	1	1	3	3	1	1
Unspecified Stockwaters					1	1
Troughs (ea)	1	1	5	5	2	2
Wells (ea)						
Springs (ea)						
Creek Crossings	2	2	3	3	1	1

Note: These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.

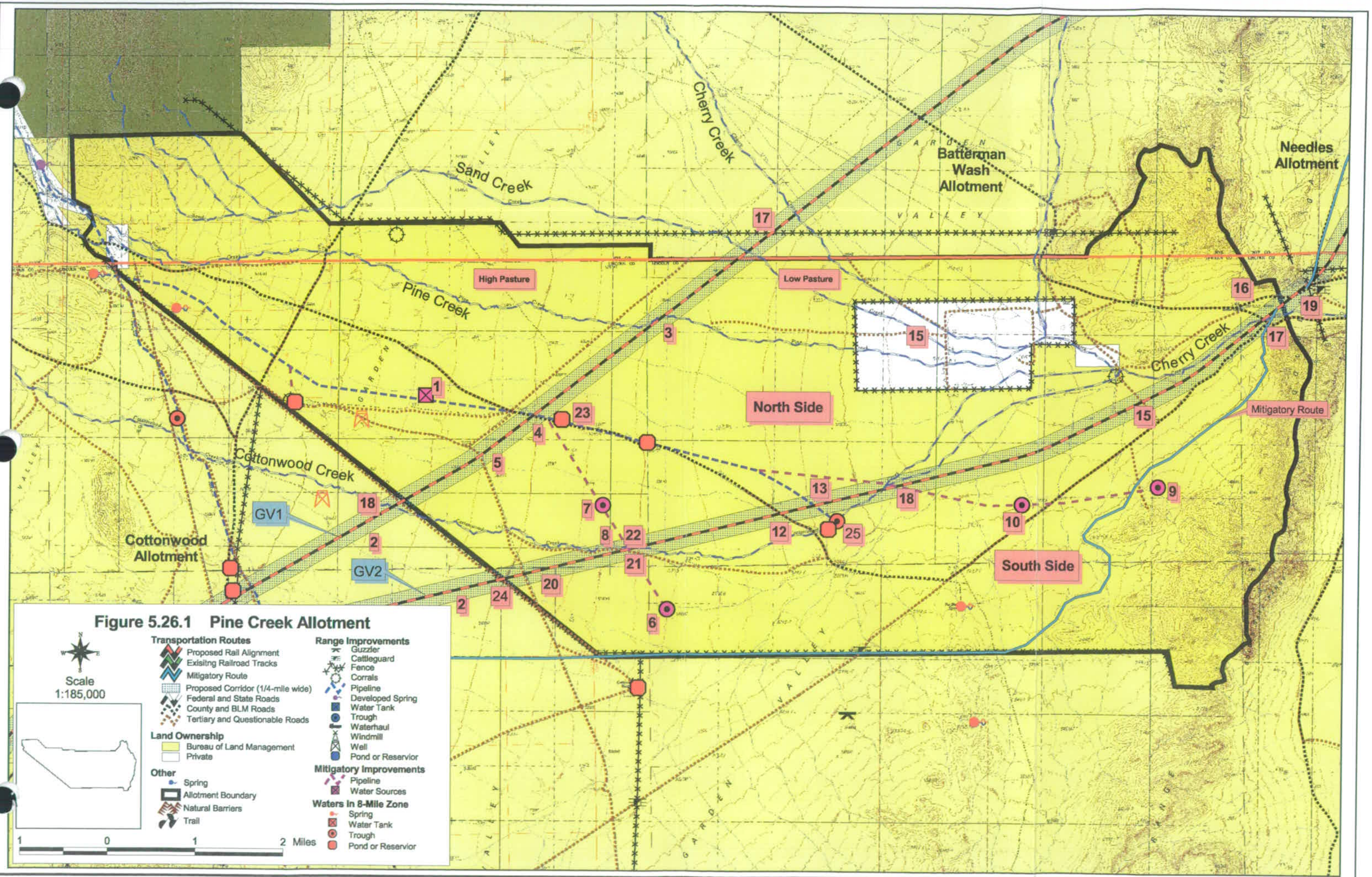
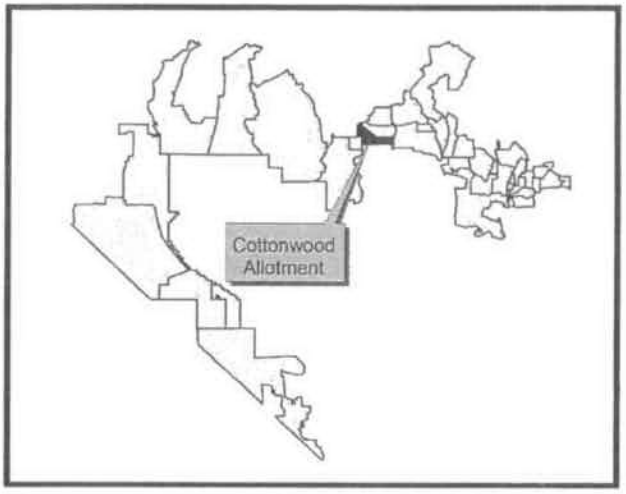


Figure 5.26.1 Pine Creek Allotment

5.27 COTTONWOOD ALLOTMENT DETAILS

Permittee: Kay Wright Ranch LLC
Contact: Rocky and Linda Hatch
Address: P.O. Box 18
Hiko, NV 89017



5.27.1 Existing Situation

Base Property: Carpenter Spring and the Carpenter Spring Pipeline are base property by authority of the Taylor Grazing Act. There are 181 AUMs of the Kay Wright Ranch LLC grazing permit attached to the pipeline, and 110 AUMs attached to the spring. The balance of the permit is attached to land. The Base Property classification adds a level of value and importance to the spring and pipeline beyond the level of private property rights under State Law. The consequence of adversely effecting the spring and pipeline is thus greater than if they only had a water right. See Tables 5.27.1 and 5.27.2, and Figure 5.27.1 for details of the allotment and railroad route.

The majority of the allotment boundary is fenced.

Table 5.27.1 Cottonwood Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
41,135	302	233 cattle	10-1 / 12-31	705	GV1	
Total – 41,437			4-01 / 5-31	467	4.42	111
				1,172	GV2	
					5.14	129

Table 5.27.2 Cottonwood Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
1,177	1,839	3,016

GRAZING SYSTEM

Three-pasture rotation.

PASTURE DESIGN

There are two pasture fences within the allotment that divide the allotment into three pastures for cattle management and rotation.

STOCKWATERS

The allotment is watered by a nine-mile long pipeline from Carpenter Spring with a series of troughs, in addition to wells, springs, ponds, reservoirs, and intermittent creeks. The stockwater improvements are authorized by BLM under Cooperative Agreements.

WATER RIGHTS

The stockwaters are all vested, certified, or permitted under Nevada State Law. They are private property rights. All the watering troughs constitute authorized "points of diversion" under state law.

5.27.2 Fencing Preference

The Permittee prefers that the railroad right-of-way remain unfenced, preferring to take the risk of death loss from collisions on an unfenced track and receive compensation, than lose the freedom for cattle to graze on both sides of the track.

5.27.3 Proposed Railroad Alignment

There are two track options in the allotment, the Garden Valley route alternative. The north option is labeled GV1, and the south is GV2. Impacts and mitigation cannot be specifically determined until the centerline is staked, and the design is available showing the depth of cuts and fills. The cuts and fills will have a big bearing on the degree of obstruction to livestock movements.

5.27.4 Impacts and Mitigation Without Fencing – GV1

IMPACTS TO VEGETATION AND FORAGE

Inside the 111 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

Drill a new stockwater well as detailed on Figure 5.27.1.

IMPACTS TO EXISTING FENCING

The proposed rail will pass through a fence where it enters and exits the allotment. It also intersects a pasture fence marked Map Reference 5 on Figure 5.27.1.

MITIGATION

Construct a railroad cattleguard and road cattleguard on the service road at all three fence intersections.

IMPACTS TO LIVESTOCK MOVEMENT

The railroad will impede cattle movement and grazing habits to some degree by creating a barrier over which cattle must travel to get from one side of the allotment to the other. The deeper the cuts and fills, the more the interference to livestock movement.

MITIGATION

Construct cattle crossings with less than 25 percent grade at approximately one-mile intervals between road crossings. This will require one cattle crossing.

IMPACTS TO STOCKWATERS

The impacted waters are both private property rights under Nevada State Law, and base property under the Taylor Grazing Act. See Figure 5.27.1 for the location of all stockwaters on the allotment.

Pipeline – The proposed rail intersects the Carpenter Spring Pipeline.

Water troughs, springs, wells, and ponds – The railroad will impact thirteen stockwaters within four miles of the rail. Since the service area for stockwaters consists of a minimum four-mile radius from the stockwater, the service area of the waters that are located within the eight-mile zone are obstructed by the rail, interfering with forage utilization. The thirteen stockwaters include three springs, two pipeline troughs, five ponds, and three wells. One trough, one well, and two ponds are within a mile of the rail, subjecting the cattle to increased risk of collision and death because of congestion proximity to the rail.

MITIGATION

Pipeline – Keep the pipeline functional. It must be kept operating and flowing throughout the rail construction phase when cattle are grazing from 10/1 to 12/31, and from 4/1 to 5/31.

Stockwaters within four miles of railroad – Drill a new stockwater well.

Stockwaters within one mile of rail – Relocate the waters so that they are one mile away from the rail.

IMPACTS TO ROADS AND TRAILS

Four roads and trails are intersected by the proposed railroad. They are identified as Map References 1-4 on Figure 5.27.1. Map References 2 and 3 are roads, Map References 1 and 4 are trails.

MITIGATION

Reroute the road labeled Map Reference 3 north of the railroad to the road labeled Map Reference 2, and eliminate one road crossing for Map Reference 3. The other three roads/trails require the construction of road crossings. The road at Map Reference 2 requires approaches of less than six percent grade for heavy traffic. The trails at Map References 1 and 4 require approaches of less than twelve percent grade to accommodate horse trailers.

IMPACTS TO LIVESTOCK FROM COLLISIONS

The trains will pose a risk of livestock death from collisions.

MITIGATION

Compensate the Permittee for the full value of all livestock lost to collisions.

IMPACTS TO OVERALL LIVESTOCK OPERATION

The proposed railroad will create disruption to the operation; time and expense will be required to adjust to the disruption; forage and protective vegetative cover will be lost on the right of way and throughout the allotment; there will be intangible loss of solitude and visual resources; there will be impacts to valuable private property (water rights under Nevada State Law); and there will be impacts to water base property (under the Taylor Grazing Act).

MITIGATION

Drill a new stockwater well. The Permittee prefers a new well at the south end of the allotment, however the location can be negotiated depending on circumstances that may arise.

5.27.5 Impacts and Mitigation With Fencing –GV1

Even though Kay Wright Ranch LLC does not want the right of way fenced, the impacts and mitigation with fencing are described in order to provide comparative information.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCING

Impacts are the same as the *Without Fencing* alternative.

MITIGATION

Mitigation will be the same as the *Without Fencing* alternative for the pasture fence. In the case of the entry and exit fences, the cattleguards will not be necessary for the Cottonwood Allotment. However, they will be necessary for the adjacent allotments if those allotment right-of-ways are not fenced.

IMPACTS TO LIVESTOCK MOVEMENT

With fencing, the railroad becomes an absolute barrier to cattle movement and creates new pasture boundaries. This disrupts the grazing management system and will require time, thought, expense, and planning to revise the Allotment Management Plan as well as the Trust's Livestock Management Plan.

MITIGATION

Mitigation for these impacts is the same as the *Without Fencing* alternative.

IMPACTS TO STOCKWATERS

Impacts to stockwaters are the same as the *Without Fencing* alternative, except the cattle congestion proximity to the rail will no longer be a problem.

MITIGATION

Mitigation for stockwaters is the same as the *Without Fencing* alternative, except the waters that are within one mile of the rail will not need to be relocated with the exception of the pond inside the right of way fence, which will still need to be relocated.

IMPACTS TO ROADS AND TRAILS

Impacts to roads and trails are the same as the *Without Fencing* alternative.

MITIGATION

Mitigation for these impacts are the same as the *Without Fencing* alternative, but requiring the installation of vehicle cattleguards on both right-of-way fences at every road and trail crossing. The cattleguards are necessary because it is impossible to control recreationists, hunters, and other vehicle traffic from leaving gates open. When the gates are left open, the cattle will get into the fenced right of way.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Fencing will eliminate most of the impacts of the *Without Fencing* alternative, with the exception of a few cattle that get trapped inside the fenced right of way.

MITIGATION

Drill a new stockwater well.

IMPACTS TO OVERALL LIVESTOCK OPERATION

Overall impacts are the same as those for the *Without Fencing* alternative.

MITIGATION

Mitigation for the overall impacts is the same as for the *Without Fencing* alternative.

5.27.6 Impacts and Mitigation Without Fencing - GV2

IMPACTS TO VEGETATION AND FORAGE

Inside the 129 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCING

The impacts are the same as those for the GV1 *Without Fencing* alternative.

MITIGATION

Mitigation is the same as for the GV1 *Without Fencing* alternative.

IMPACTS TO LIVESTOCK MOVEMENT

The impacts are the same as those for the GV1 *Without Fencing* alternative.

MITIGATION

Mitigation is the same as for the GV1 *Without Fencing* alternative, except two crossings will be required rather than one.

IMPACTS TO STOCKWATERS

The impacts are the same as those for the GV1 *Without Fencing* alternative, except for the number of stockwaters that are within a mile of the rail. In the case of GV2, one trough and two ponds are within one mile. The well is not.

MITIGATION

Mitigation is the same as for the GV1 *Without Fencing* alternative.

IMPACTS TO ROADS AND TRAILS

Four roads and trails are intersected by the proposed railroad. They are identified as Map References 6-9 on the map. Map Reference 7 is a road, and 6, 8, and 9 are trails.

MITIGATION

Reroute the road at Map Reference 8 south of the rail to Map Reference 7, and eliminate one road crossing for the road at Map Reference 8. The other three require the construction of road crossings. Map Reference 7 is a road and requires approaches of less than six percent grade for heavy traffic. Map References 6 and 9 are trails and require approaches of less than twelve percent grade to accommodate horse trailers.

IMPACTS TO LIVESTOCK FROM COLLISIONS

The impacts are the same as those for the GV1 *Without Fencing* alternative.

MITIGATION

Mitigation is the same as for the GV1 *Without Fencing* alternative.

IMPACTS TO OVERALL LIVESTOCK OPERATION

The impacts are the same as those for the GV1 *Without Fencing* alternative.

MITIGATION

Mitigation is the same as for the GV1 *Without Fencing* alternative.

5.27.7 Impacts and Mitigation With Fencing - GV2

Even though Kay Wright Ranch LLC does not want the right of way fenced, the impacts and mitigation with fencing are described in order to provide comparative information.

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCING

Impacts are the same as those for the GV1 *With Fencing* alternative.

MITIGATION

Mitigation is the same as for the GV1 *With Fencing* alternative.

IMPACTS TO LIVESTOCK MOVEMENT

The impacts are the same as the GV2 *Without Fencing* alternative.

MITIGATION

Mitigation is the same as the GV2 *Without Fencing* alternative.

IMPACTS TO STOCKWATERS

The impacts are the same as the GV2 *Without Fencing* alternative.

MITIGATION

Mitigation is the same as the GV2 *Without Fencing* alternative.

IMPACTS TO ROADS AND TRAILS

The impacts are the same as the GV2 *Without Fencing* alternative

MITIGATION

Mitigation is the same as the GV2 *Without Fencing* alternative. In addition, it will be necessary to install vehicle cattleguards on both right-of-way fences at every road and trail crossing. The cattleguards are necessary because it is impossible to keep recreationists, hunters, and other vehicle traffic from leaving gates open. When the gates are left open, the cattle will get into the fenced right of way.

IMPACTS TO LIVESTOCK FROM COLLISIONS

The impacts are the same as the GV2 *Without Fencing* alternative.

MITIGATION

Mitigation is the same as the GV2 *Without Fencing* alternative.

IMPACTS TO OVERALL LIVESTOCK OPERATION

Impacts are the same as those for the GV1 *Without Fencing* alternative.

MITIGATION

Mitigation is the same as for the GV1 *Without Fencing* alternative.

5.27.8 Alternate Routes

The Kay Wright Ranch LLC advocates the idea that the railroad should be rerouted south down the east side of Coal Lake Valley and then west through Murphy Gap to bypass Garden Valley. They view the Murphy Gap option as feasible and subject to fewer conflicts than coming across the north end of Coal Lake Valley and Garden Valley.

5.27.9 Additional Mitigation

1) The Kay Wright Ranch LLC requests that they be given the opportunity to review the construction design and mitigation project plans in draft stage with a DOE or contractor spokesman so they can negotiate or have input into design details.
2) They request that all wells drilled for construction water on the Cottonwood Allotment be transferred to the Trust for stockwater at the conclusion of construction.
3) They request that all disturbed area be rehabilitated with palatable species.
4) They are concerned about what steps will be taken to police the leisure time of construction crews camped in the field in order to minimize pilfering and vandalism of private property that is scattered in the vicinity of the full length of the proposed rail line. They request to be informed of the policing measures that will be taken.

Table 5.27.3 Cottonwood allotment Impacted Features

Permittee Fencing Preference: No Fencing

Impacted Features	GV-1	GV-2
Stockwaters w/in 4 miles	13	13
Stockwaters w/in 1 mile	3	3
Fences (ea)	3	3
Roads (ea)	1	1
Trails (ea)	3	3
Pipelines (ea)	1	1
Other		

Table 5.27.4 Cottonwood Allotment Mitigation Project Comparison

Proposed Mitigation Units	GV-1		GV-2	
	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)		8.8		10.3
Gates (ea)	6	16	6	18
Railroad Cattleguards (ea)	3	2	3	2
Road Cattleguards (ea)	3	11	3	11
Road Crossings (ea)	1	1	1	1
Trail Crossings (ea)	3	3	3	3
Cattle Crossings (ea)	1	1	2	2
Sheep Crossings (ea)				
Pipeline Construction (mi)				
Pipeline Crossings (ea)	1	1	1	1
Unspecified Stockwaters	3	1	3	1
Troughs (ea)				
Wells (ea)	1	1	1	1
Springs (ea)				
Other				

Note: These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.

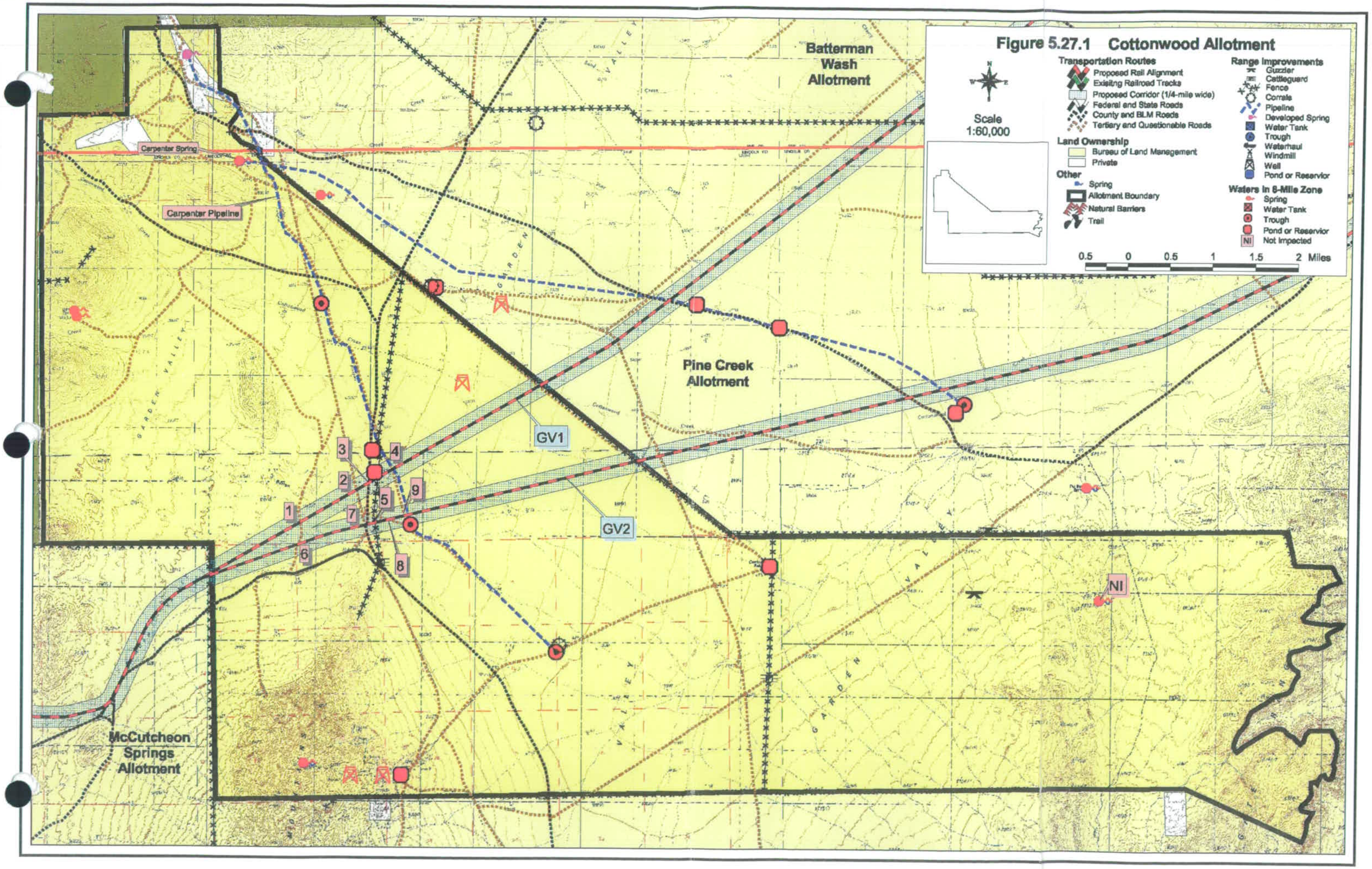
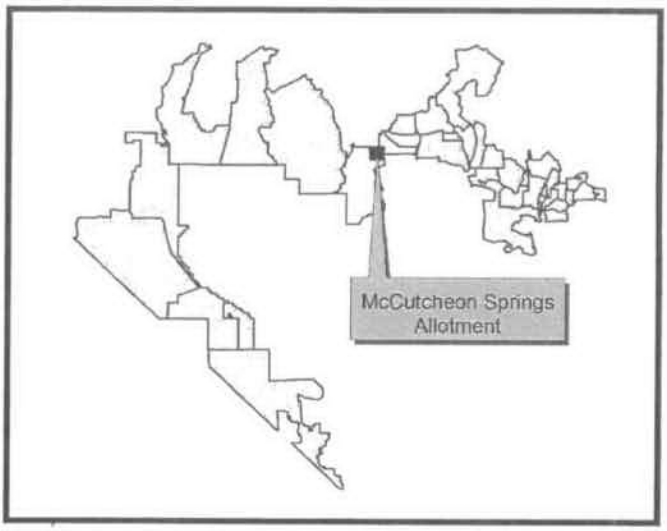


Figure 5.27.1 Cottonwood Allotment
Scale
1:60,000
Transportation Routes
Proposed Rail Alignment
Existing Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
Waters in 8-Mile Zone
Spring
Water Tank
Trough
Pond or Reservior
NI
Not Impected
0.5 0 0.5 1 1.5 2 Miles
Batterman Wash Allotment
Pine Creek Allotment
McCutcheon Springs Allotment
Carpenter Spring
Carpenter Pipeline
GV1
GV2
1
2
3
4
5
6
7
8
9
NI

5.28 McCutcheon Springs Allotment

Permittee: Wright Trust
Contact: Rocky and Linda Hatch
Address: Box 18
Hiko, NV 89017



5.28.1 Existing Situation

Base Property: Land

The McCutcheon Springs Allotment is approximately 5.5 miles east to west, and five miles north and south. It is located near the north end of Sand Spring Valley, bordering the south end of the Humboldt National Forest and the Quinn Canyon Range to the west. The perimeter of the allotment is fenced, making the allotment a single pasture. See Tables 5.28.1 and 5.28.2, and Figure 5.28.1 for details of the allotment.

Table 5.28.1 McCutcheon Springs Allotment Details

Allotment Acres		Grazing Permit			Track Coverage	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
18,061	40	38 cattle	3-01 / 2-28	465	Common Segment	
Total – 18,102					6.47	162

Table 5.28.2 McCutcheon Springs Allotment Permitted Use AUMs

Active	Suspended	Total
446	0	446

Grazing System

Cattle graze the entire allotment for the duration of the season.

Stockwaters

McCutcheon Spring is the only perennial water source within the allotment, and is located centrally as noted on Figure 5.28.1.

5.28.2 Fencing Preference

The Permittee prefers that the proposed track and service road not be fenced, as this would disrupt the current grazing system, which allows cattle to move freely throughout the allotment utilizing available forage.

5.28.3 Proposed Railroad Alignment

The proposed track will enter the allotment just south of the northeast corner and exit about two-thirds of the way down on the west side.

5.28.4 Impacts and Mitigation Without Fencing

Impacts and mitigation cannot be specifically determined until the centerline is staked, and until the design is available showing the locations and the depth of cuts and fills. The depth of cuts and fills will have a big bearing on the degree of obstruction for livestock and vehicle movement.

IMPACTS TO VEGETATION AND FORAGE

Inside the 162 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

IMPACTS TO EXISTING FENCE

The proposed track will cross the allotment perimeter fencing as it enters and exits the allotment, leaving openings that will allow cattle to cross from one allotment to another.

MITIGATION

Construct cattle guards, gates and fencing where the track and maintenance road cross at each fence intersection, for a total of two railroad cattleguards and two road cattleguards with gates.

IMPACTS TO LIVESTOCK MOVEMENT

The track will bisect the southern portion of the allotment from the single water source and disrupt the ability of livestock to move and graze freely from north to south throughout the allotment.

MITIGATION

Provide a well and trough south of the track allowing cattle to utilize the southern area of the allotment without having to cross the track for water. While this will minimize impacts of the proposed track to free cattle movement, it will still be necessary to construct three cattle crossings with a grade less than 25 percent. The cattle crossings in addition to the road crossing will create an access along the track approximately every mile allowing cattle to move through the allotment from one side of the track to the other.

IMPACTS TO STOCKWATERS

The proposed track will pass within .5 mile of the only water source within the allotment where cattle congregate, creating an increased potential for cow-train collisions. The track would also create a barrier to the southern portion of the allotment with no water source available south of the track.

MITIGATION

Provide a new well and trough south of the track (the exact location to be discussed with the Permittee), allowing cattle to utilize the southern area of the allotment without having to cross the track for water and decreasing the number of livestock near the track.

IMPACTS TO ROADS AND TRAILS

The proposed track will cross three trails within the allotment used for access and maintenance, interrupting travel through the allotment. Depending on the exact alignment the track may cross a trail that parallels the track for a short stretch.

MITIGATION

Keep all trails functional by providing crossings with grade not to exceed twelve percent. The trail mentioned above may be moved south to avoid the track in necessary.

IMPACTS TO LIVESTOCK FROM COLLISIONS

The train will pose a risk of livestock death from collisions

MITIGATION

Reimburse Permittee for the full value of lost animals. Provide a well and trough south of the track in a location to be discussed with the Permittee.

5.28.5 Impacts and Mitigation With Fencing

The impacts and mitigation of fencing are the same as those detailed in the *Without Fencing* alternative, however some are compounded and may require a more extensive mitigation as described below.

IMPACTS TO FORAGE AND VEGETATION

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

Provide a well and trough south of the track in an area to be determined with the Permittee.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing will create an absolute barrier and block cattle movement to either side of the track throughout the allotment. This would disrupt the current grazing management system.

MITIGATION

Same as without fencing, except gates will be necessary at each trail crossing and cattle crossing on both right-of-way fences to create an access along the track approximately every one mile allowing cattle to be moved through the allotment from one side of the track to the other. This will require twelve gates.

IMPACTS TO STOCKWATERS

Fencing the right-of-way may lead to overgrazing along the fence line near the spring where cattle congregate.

MITIGATION

Provide a well and trough south of the track that would disperse the numbers of livestock having to use a single water source.

IMPACTS TO ROADS AND TRAILS

Same as *Without Fencing* alternative.

MITIGATION

Install vehicle cattleguards on both right-of-way fences at the three trail crossings to allow for vehicle passage across the track. This will require a total of six vehicle cattleguards, one for each fence at every road crossing.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Fencing the right-of-way reduces the likelihood of livestock death from train collisions, however livestock may get through the fence or enter through gates left open.

MITIGATION

Same as *Without Fencing* alternative.

5.28.6 Alternate Route

Although the impacts mentioned above may be mitigated to some extent, they will still exist. As a result of these impacts, the Permittee advocates the Murphy Gap Route as detailed in the Cottonwood Allotment analysis. This proposed alignment serves as an overall mitigation to the impacts created by the current proposed route.

Table 5.28.3 McCutcheon Springs Allotment Impacted Features

Permittee Fencing Preference: Without Fencing

Impacted Features	Common Segment
Stockwaters w/in 4 miles	3
Stockwaters w/in 1 mile	2
Fences (ea)	2
Roads (ea)	
Trails (ea)	3
Pipelines (ea)	
Other	

Table 5.28.4 McCutcheon Springs Mitigation Project Comparison

Proposed Mitigation Units	Common Segment	
	Without Fencing	With Fencing
Fence (mi)		12.94
Gates (ea)	4	16
Railroad Cattleguards (ea)	2	2
Road Cattleguards (ea)	2	8
Road Crossings (ea)		
Trail Crossings (ea)	3	3
Cattle Crossings (ea)	3	3
Sheep Crossings (ea)		
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Unspecified Stockwaters		
Troughs (ea)	1	1
Wells (ea)	1	1
Springs (ea)		
Other		

Note: These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.

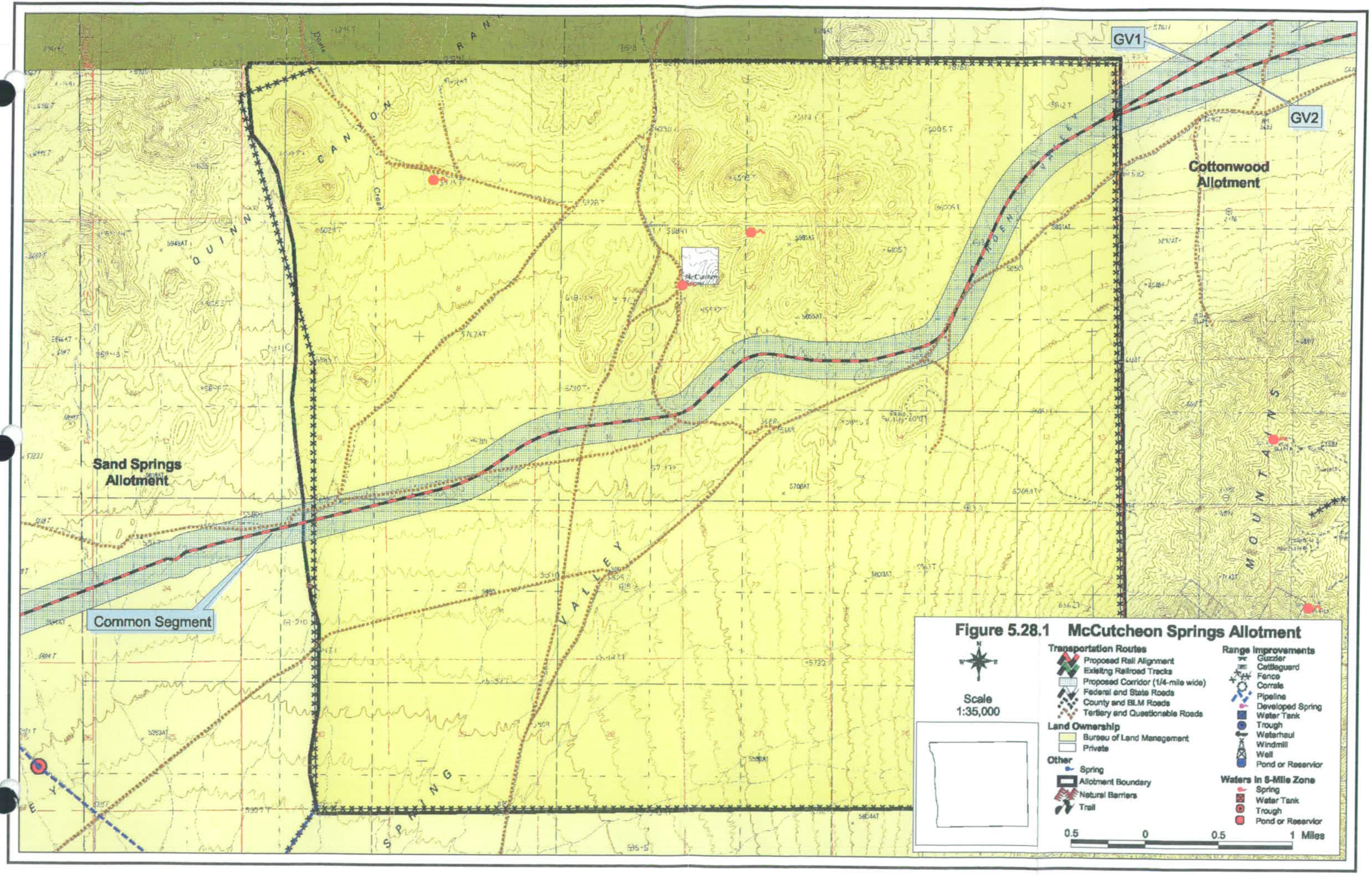
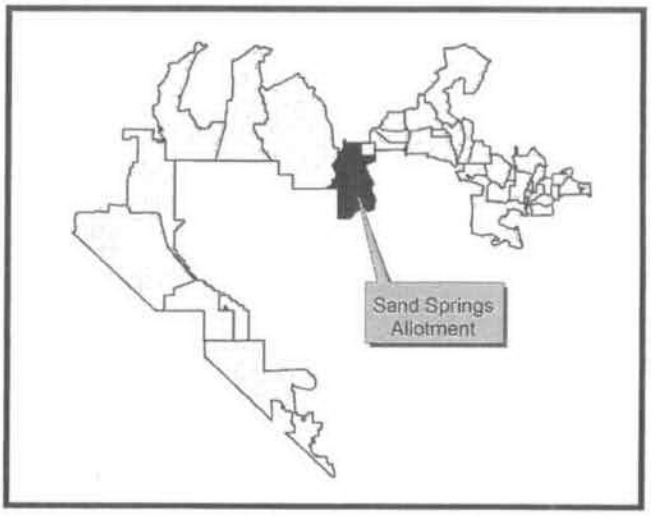


Figure 5.28.1 McCutcheon Springs Allotment

5.29 SAND SPRINGS ALLOTMENT

Permittee: Tempiute Grazing Association
Contact: Dirk and Marta Agee
Address: HC 61 Box 50
Alamo, NV 89001



5.29.1 Existing Situation

Base Property: The base property classification is 100% Water under authority of the Taylor Grazing Act. The grazing privileges in this allotment are thus attached to the various privately owned water rights within the allotment. The base property classification adds a level of value and importance to the waters and water rights beyond the level of private property rights under State Law. The consequence of adversely affecting the stockwaters is thus greater than if the Tempiute Grazing Association (TGA) had only a water right on them. See Tables 5.29.1 and 5.29.2, and Figure 5.29.1 for details of the allotment and railroad route.

Table 5.29.1 Sand Springs Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
231,907	7,757	1518 cattle	11-15 / 4-15	7,588	Common Segment	
Total – 239,664		600 cattle	11-15 / 4-15	3,000*	13.38	335
		Total = 10,588				

*Temporary Non-Renewable

Table 5.29.2 Sand Springs Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
7,005	2,995	10,000

GRAZING SYSTEM

Continuous winter grazing.

STOCKWATERS

The TGA has developed an elaborate stockwater system. Over 100 miles of pipeline with dozens of troughs and storage tanks have been added to an existing system. The total mileage will be in excess of 135 miles of pipeline. The system stems from a high producing spring near the US Forest Service boundary on the north end of the allotment. The water is

piped downhill from there and branches out into multiple pipelines as it progresses down-gradient. The system is authorized by the BLM under Cooperative Agreement, and by the Nevada Division of Water Resources under Nevada State Water Law.

WATER RIGHTS

The stockwaters are all vested, certified, or permitted under Nevada State Water Law. As such, they constitute private property rights. All the watering troughs constitute authorized "points of diversion" under State law.

FENCES

The allotment boundary is fenced where the proposed track and service road will both enter and exit. There is also a gap fence that is intersected by the proposed route.

5.29.2 Fencing Preference

The TGA prefers that the railroad not be fenced. They would rather take the risk of livestock death loss from collisions on an unfenced track than lose the freedom of movement for their cattle to graze on both sides of the right-of-way.

5.29.3 Proposed Railroad Alignment

The Common Segment of the proposed railroad will travel across the northern end of the allotment, trending southwest from the northeastern corner of the allotment.

5.29.4 Impacts and Mitigation Without Fencing

Impacts and mitigation cannot be specifically determined until the centerline is staked, and until the design is available showing the depth of cuts and fills. The depth of cuts and fills will have a big bearing on the degree of obstruction of livestock movements.

IMPACTS TO OVERALL LIVESTOCK OPERATION

The proposed railroad will create disruption to the operation. It will require time and operational expense to adjust to and accommodate all the disruptive factors. Impacts include those to valuable property rights consisting of both water rights under Nevada State Law and water based property under the Taylor Grazing Act.

MITIGATION

Deed all wells drilled in the allotment for construction water to the TGA after construction is complete. There will be a significant savings to the DOE by deeding the wells rather than paying abandonment costs required by the State of Nevada. Well abandonment often costs more than the initial well drilling.

IMPACTS TO VEGETATION AND FORAGE

Inside the 335 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

Deed all wells drilled for construction water to the TGA.

IMPACTS TO EXISTING FENCING

The proposed rail will pass through two fences where it enters and exits the allotment. It also intersects a gap fence.

MITIGATION

Construct a railroad cattleguard and service road cattleguard at all three fence intersections.

IMPACTS TO LIVESTOCK MOVEMENT

Even without fencing, the rail will present a barrier and interfere with cattle movements and grazing habits to some degree. The deeper the cuts and fills, the more interference.

MITIGATION

Construct cattle crossings with approaches not to exceed 25 percent grade at approximately .5-mile intervals between road crossings. This will require about fourteen crossings.

IMPACTS TO STOCKWATER

The proposed railroad impacts nineteen stockwaters that are within four miles of the track. Six of the stockwaters are within one mile of the railroad, which creates additional impacts. There is an increased risk of collisions because of livestock congestion in close proximity to the track while cattle congregate at water sources.

Pipelines: The proposed rail intersects three branches of the pipeline system, labeled as Pipelines 1-3 on Figure 5.29.1.

MITIGATION

Pipelines: Keep the pipelines functional in all cases. They must be kept operating and flowing throughout the rail construction phase during the grazing season (11-15 / 4-15).

Waters within 4 miles: Deed all wells drilled for construction water to the TGA.
Waters within 1 mile: relocate all troughs so they are at least one mile from the railroad.

IMPACTS TO ROADS AND TRAILS

One road and four trails are intersected by the proposed track and service road.

MITIGATION

One trail can be rerouted to eliminate one intersection. The road and remaining three trails require the construction of appropriate crossings, detailed in Table 5.29.2

IMPACTS TO LIVESTOCK FROM COLLISIONS

The trains will a pose a risk of livestock death loss from collisions.

MITIGATION

Reimburse the TGA for all livestock lost to railroad collisions. Deed all wells drilled in the allotment for construction water to the TGA.

5.29.5 Impacts and Mitigation With Fencing

IMPACTS TO OVERALL LIVESTOCK OPERATION

Impacts are the same as detailed in the *Without Fencing* alternative.

MITIGATION

Mitigation is the same as detailed in the *Without Fencing* alternative

IMPACTS TO VEGETATION AND FORAGE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCING

Impacts are the same as detailed in the *Without Fencing* alternative.

MITIGATION

Two gates will be required at each fence intersection, on the outside of the right-of-way fence on each side of the railroad.

IMPACTS TO LIVESTOCK MOVEMENT

With fencing, the rail becomes an absolute barrier to cattle movement and creates new pasture boundaries. This disrupts the grazing management system and will require time, thought, and planning to revise the Allotment Management Plan as well as the TGA Livestock Management Plan.

MITIGATION

Mitigation is the same as detailed in the *Without Fencing* alternative, with the addition of two gates at each cattle crossing, one in the right-of-way fence on each side of the railroad.

IMPACTS TO STOCKWATERS

The impacts to stockwaters will be the same as detailed in the *Without Fencing* alternative, except the cattle congestion proximity to the rail will no longer be a problem.

MITIGATION

Mitigation is the same as detailed in the *Without Fencing* alternative, except it will not be necessary to relocate the water trough located in the path of the right-of-way.

IMPACTS TO ROADS AND TRAILS

Impacts to roads and trails are the same as detailed in the *Without Fencing* alternative.

MITIGATION

Mitigation is the same as detailed in the *Without Fencing* alternative, with the additional necessity of installing vehicle cattleguards and gates on both right-of-way fences at every road crossing. The cattleguards are necessary because it is impossible to trust recreationists, hunters, and other vehicle traffic to shut gates. When the gates are left open, the cattle will get into the fenced right of way.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Fencing will eliminate most of this impact with the exception of a few cattle that get trapped inside the fenced right of way.

MITIGATION

Deed all wells drilled for construction activities to the TGA after construction is completed.

5.29.6 Alternate Routes

The TGA is aware that several ranchers have advanced the idea that the railroad should be rerouted south down the east side of Coal Lake Valley, traveling west through Murphy Gap. The railroad would then presumably continue westerly across the middle of the Sand Springs Allotment. The TGA does not like this option. The further south the rail crosses Sand Springs Allotment, the more pipelines it intersects as their pipeline system branches out further and further, and the more disruptive the railroad becomes to their operation.

5.29.7 Other Mitigation

1) The TGA requests that they be given the opportunity to review the construction plans in draft stage to give them the opportunity to negotiate or have input into details that are difficult to foresee in advance.
2) The TGA is concerned about what steps will be taken to police the leisure time of construction crews camped in the field in order to minimize pilfering and vandalism of private property that is scattered in the vicinity of the full length of the proposed rail line. They request to be informed of the policing measures that will be taken.

Table 5.29.3 Sand Springs Allotment Impacted Features

Permittee Fencing Preference: Without Fencing

Impacted Features	Common Segment
Stockwaters w/in 4 miles	19
Stockwaters w/in 1 mile	6
Fences (ea)	3
Roads (ea)	1
Trails (ea)	3
Pipelines (ea)	3
Other	

Table 5.29.4 Sand Springs Allotment Mitigation Project Comparison

Proposed Mitigation Units	Common Segment	
	Without Fencing	With Fencing
Fence (mi)		27.8
Gates (ea)	6	42
Railroad Cattleguards (ea)	3	2
Road Cattleguards (ea)	3	10
Road Crossings (ea)	1	1
Trail Crossings (ea)	3	3
Cattle Crossings (ea)	14	14
Sheep Crossings (ea)		
Pipeline Construction (mi)	8	1
Pipeline Crossings (ea)	3	3
Unspecified Stockwaters	6	1
Troughs (ea)	6	1
Wells (ea)		
Springs (ea)		
Other		

Note: These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.

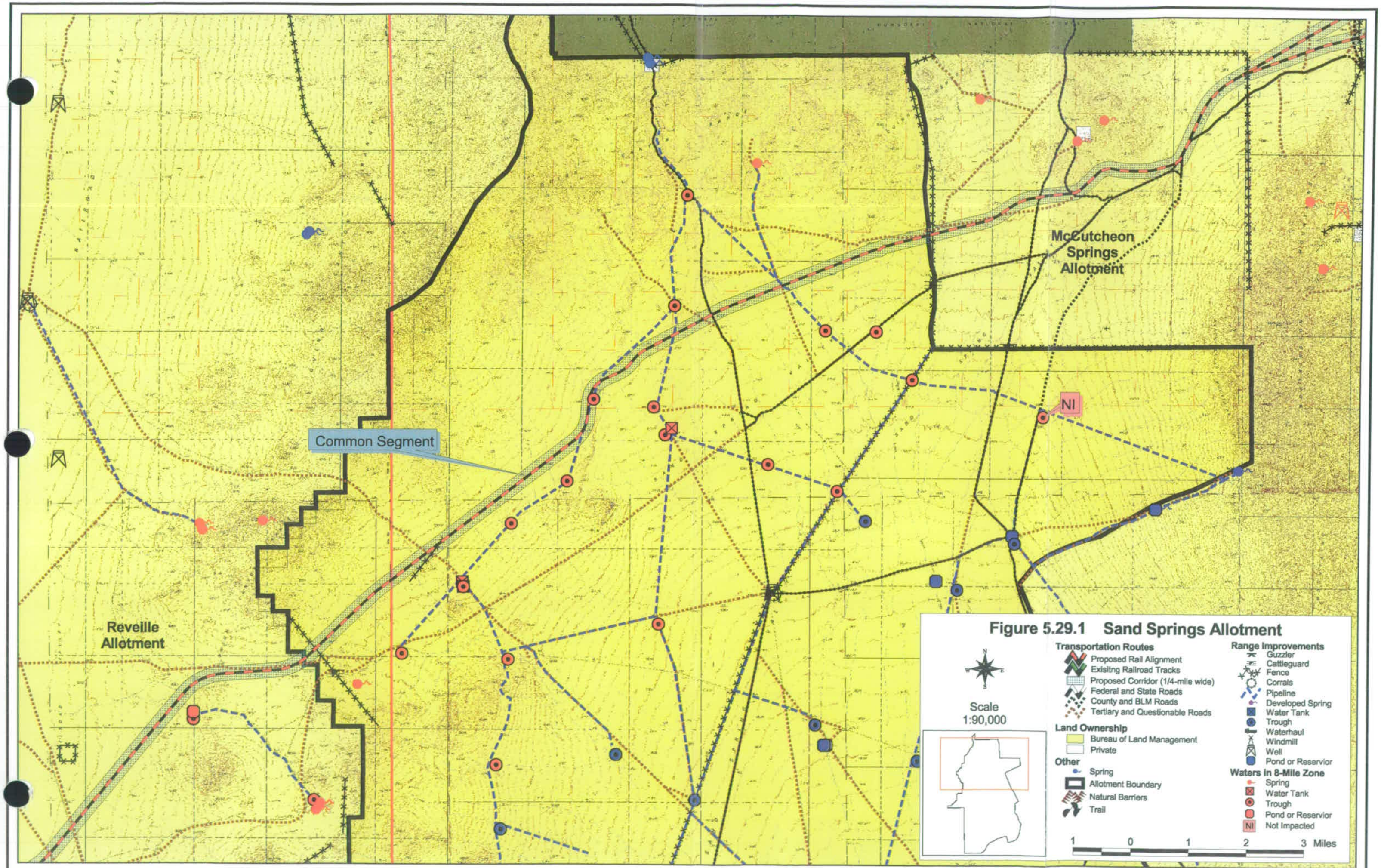
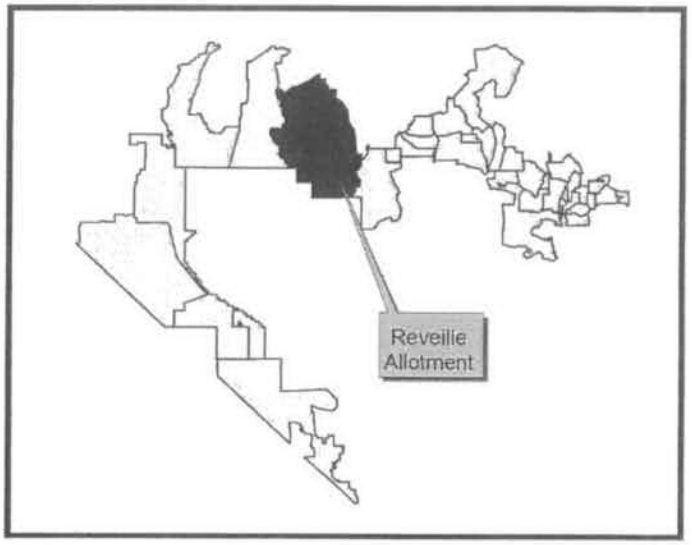


Figure 5.29.1 Sand Springs Allotment

5.30 REVEILLE ALLOTMENT



Permittee: ½ Fallini / ½ Fallini Trust
Contact: Joe Fallini
Address: Twin Springs Ranch
HC 76 Box 1100
Tonopah, NV 89049

Base Property: Water

With the exception of this page and the summary impact and mitigation summary tables at the end of this section, the Reveille Allotment report was prepared by Intermountain Range Consultants of Winnemucca, Nevada on behalf of Joe Fallini. The consultants' comments do not necessarily agree with BLM policy, regulations, or law. The material was originally assembled in response to the *Notice of Intent to Prepare an Environmental Impact Statement for the Alignment, Construction, and Operation of a Rail Line to a Geological Repository at Yucca Mountain, Nye County, Nevada* (69 FR 18565-18569). See Tables 5.30.1 and 5.30.2 for details of the allotment and railroad route.

The Tonopah Resource Management Plan and Record of Decision referred to in Exhibit 4 in this section is included as Appendix A in this document. All other exhibits are included as referenced in this section.

Table 5.30.1 Reveille Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
656,768	2,598	2,440 cattle	3/01 – 5/31	7,380	East	
		2,100 cattle	6/01 – 6/30	2,071	47.28	1,182
Total = 659,365		1,801 cattle	7/01 – 11/30	9,059	Central	
		2,440 cattle	12/01 – 2/28	7,220	47.6	1,190
		Total = 25,730			West	
					48.71	1,218

Table 5.30.2 Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
25,730	0	25,730

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List of Exhibits

Exhibit 1. Map of Reveille Allotment showing Fallini Private Lands.

Exhibit 2. Map of Reveille Allotment showing Fallini waters and facilities along proposed Caliente Option.

Exhibit 3. Map of photo locations, and photos showing Fallini waters and facilities along proposed Caliente Option.

Exhibit 4*. Pertinent excerpts of BLM's Land Use Plan (1997 RMP/ROD).

Exhibit 5. List of wildlife species and special-status plant species within Reveille Allotment-Appendix D of May 1999 Allotment Evaluation.

Exhibit 6. Humboldt Sun news article regarding status of wildlife in Nevada.

Exhibit 7. Descriptions of Alternate routes that should be considered.

Exhibit 8. Scoping comments letter to Robin Sweeney, March 11, 2004.

**This is the Tonopah Resource Management Plan and Record of Decision, included as Appendix A at the end of this report.*

ABSTRACT:

Allotment Name: Reveille

Permittee: 1/2 Fallini, 1/2 Fallini Living Trust
Twin Springs Ranch

Contact Name & Number: Joe Fallini - 775-863-0125

Season of Use: 3/1 -2/28

Class of Livestock: Cow/calf

Base Property: Water

Grazing System: Deferred rotation (Railroad Valley) and well deferment (Reveille Valley).

Shortly after learning the Caliente Option had been selected as the preferred route for the Yucca Mountain Railroad, the Twin Springs Ranch wrote a protest letter to the Office of National Transportation, attention Ms. Robin Sweeney, dated March 11, 2004. The letter provided background and historical information on the Twin Springs Ranch, and the ranch's Reveille Grazing Allotment through which the Caliente RR Route will pass for a distance of approximately 48 miles. The letter included 23 questions. The letter is included as Exhibit 8 in this section.

RR Route Location Preference: Oppose the Caliente RR Route as proposed within the Reveille Allotment or Stone Cabin Allotment. Support evaluation and selection of "No Action Alternative" as stated at 69 Fed.Reg. 18568 (4/8/04). In the alternative to the evaluation and selection of the "No Action Alternative", support the evaluation as an "additional reasonable alternative" the Chalk Mountain RR Route or revised Chalk Mountain RR Route, including the selection thereof. See 69 Fed.Reg. 18565-18566 (wherein it is stated that "DOE will consider other potential variations outside of the 0.25 mile wide corridor that might minimize, avoid or mitigate adverse environmental impacts"). See also 69 Fed.Reg. 18566 (wherein it is stated that DOE "is particularly interested in identifying and subsequently evaluating any additional reasonable alternatives that would reduce or avoid known or potential adverse environmental impacts, national security activities, features having aesthetic values, and land-use conflicts, or alternatives that should be eliminated from detailed consideration. This could include identifying alternatives that could avoid wilderness study areas or other land use conflicts").

RR Route Fencing Preference: No fence is needed through the Reveille Allotment if the Chalk Mountain route or revised Chalk Mountain route is selected. If the Caliente Option is taken, preference is to have the railroad right of way fenced on both sides, with permittee, cattle, wildlife, wild horse and other public access across Caliente RR Route secured via a combination of surface crossings and numerous underpasses.

Issues Affecting all Railroad Route Alternatives:

A. Issues Affecting Private Interests in the Reveille Allotment.

1. Private land - indirect negative impacts
2. Grazing Preference - direct and indirect negative impacts
3. Base Property - direct negative impacts
4. Nevada Grazing Rights - direct and indirect negative impacts
5. Range Improvement Permits / Cooperative Agreements - direct negative impacts
6. Federal Grants - direct negative impacts
7. Water rights - direct negative impacts
8. Wildlife - indirect negative impacts
9. Recreation - indirect negative impacts
10. Aesthetics - direct negative impacts
11. Cultural Resources - direct negative impacts
12. Wild horses - direct negative impacts
13. Wilderness/Wilderness Study Areas - direct negative impacts
14. Monitoring - direct and indirect negative impacts

B. Issues Affecting Public Interests in the Reveille Allotment.

1. Watersheds - direct negative impacts
2. Vegetation - direct negative impacts
3. Visual Resource Management - direct negative impacts
4. Wildlife Habitat Management - direct and indirect negative impacts
5. Special Status Species - direct and indirect impacts
6. Livestock Grazing Management - direct and indirect negative impacts
7. Wild Horses and Burros - direct negative impacts
8. Cultural Resources - direct negative impacts
9. Lands and Rights-of-Way - direct negative impacts
10. Recreation - direct and indirect negative impacts
11. Wilderness - direct negative impacts
12. Utility Corridors - direct negative impacts
13. Fluid Minerals - indirect negative impacts
14. Locatable Minerals - indirect negative impacts
15. Fire Management - direct and indirect negative impacts
16. Monitoring Investment - direct and indirect negative impacts

SECTION I. IDENTIFICATION OF ISSUES PERTAINING TO ALL RAILROAD ROUTES (THE "CALIENTE" ROUTE) WITHIN THE REVEILLE ALLOTMENT:

A. Issues Affecting Private Interests in the Reveille Allotment.

The issues affecting the private interests of the permittee (i.e. 1/2 Fallini, 1/2 Fallini trust) and the Fallini family (collectively, "Fallini") within the Reveille Allotment are: (1) private land; (2) grazing preference; (3) base property; (4) Nevada grazing rights; (5) range improvements; (6) federal grants; (7) water rights; (8) wildlife, (9) recreation, (10) aesthetics, (11) cultural resources, (12) wild horses; (13) wilderness study areas/wilderness, and; (14) monitoring investment.

PRIVATE INTEREST ISSUE 1. PRIVATE LAND.

Following is a partial history of the private lands owned by Fallini in the Reveille Allotment. It is not intended to be exhaustive in terms of demonstrating chain of title, but presents the history of patent issuance as is presently known to Fallini. All of the described lands, totaling 2549.46 acres, now belong to Fallini.

1. Twin Springs Ranch-Settled since at least 1868.

A Survey conducted in September, 1875 showed the following parcels in T4N, R51E, settled and occupied as of that date:

T4N, R51E,
Sec 1, W1/2NW1/4, SW1/4SW1/4;
Sec 2, E1/2NE1/4, SW1/4NW1/4, SW1/4SW1/4, SE1/4SE1/4;
Sec 3, SE1/4NE1/4, SE1/4SE1/4;
Sec 13, NW1/4, NE1/4SE1/4

On November 9, 1885 W.A. Moore, made affidavit and application to General Land Office for preferred claim for the purchase of 200 acres. Moore attested to the fact that he had settled, occupied and improved upon the lands since 1868. A portion of the 200 acres were described as:

T4N, R51E, Sec 13, NE1/4SE1/4, E1/2NW1/4 (a portion of the present-day Twin Springs Ranch).

On January 8, 1901, George Dugan sold to Henry Lorigin and Dave Allen the following lands, characterized as the "Twin Springs Ranch":

T4N, R51E, Sec 13, E1/2NW1/4, NE1/4SE1/4 (a portion of present-day Twin Springs Ranch);

and Dugan also sold to Lorigin and Allen the following lands, characterized as the "Hot Springs Ranch":

T4N, R50E, Sec 20, NW1/4SW1/4 (a portion of present-day Warm Springs Ranch).

The present-day Twin Springs Ranch private land consists of the following parcels, totaling 762.06 acres:

On November 10, 1917, Herman Reischke entered into a contract with the State of Nevada to purchase 322.06 acres under an "Act of the Legislature of the State of Nevada, approved March 12, 1885, entitled 'An act to provide for the selection and sale of lands that have been or may hereafter be granted by the United States to the State of Nevada'". The contract was fulfilled and a State patent was issued on April 12, 1937 to his widow, Alvena Reischke. Patent 11227 was issued for the following lands:

T4N, R51 E
Sec 1, W1/2NW1/4, SW1/4SW1/4;
Sec 2, E1/2NE1/4, SE1/4SE1/4;
Sec 13, W1/2NW1/4

Another 80 acres was originally patented under an "Act of the Legislature of the State of Nevada, approved March 12, 1885, entitled 'An act to provide for the selection and sale of lands that have been or may hereafter be granted by the United States to the State of Nevada'" on February 5, 1923 to W. Lewis. Patent 10176 was issued for the following lands:

T4N, R51E
Sec 2, SW1/4SW1/4;
Sec 3, SE1/4SE1/4

Another 320 acres was originally patented by the United States on November 21, 1921 to Herman Reischke. Patent 833630 was issued for the following lands:

T4N, R51E
Sec 13, W1/2NE1/4
Sec 12, W1/2SE1/4, SW1/4

Another 40 acres was originally patented under an "Act of the Legislature of the State of Nevada, approved March 12, 1885, entitled 'An act to provide for the selection and sale of lands that have been or may hereafter be granted by the United States to the State of Nevada'" on November 19, 1907. Patent 6044 was issued for the following lands:

T4N, R51E, Sec 13, NE1/4SE1/4

2. Warm Springs Ranch-Settled since at least 1868.

On November 9, 1885 W.A. Moore, made affidavit and application to General Land Office for preferred claim for the purchase of 200 acres. Moore attested to the fact that he had settled, occupied and improved upon the lands since 1868. A portion of the 200 acres were described as:

> T4N, R50E, Sec 20, SE1/4NW1/4, NW1/4SW1/4 (a portion of present-day Warm Springs Ranch;

On January 8, 1901, George Dugan sold to Henry Lorigin and Dave Allen the following lands, characterized as the "Twin Springs Ranch":

> T4N, R51E, Sec 13, E1/2NW1/4, NE1/4SE1/4 (a portion of present-day Twin Springs Ranch);

and Dugan also sold to Lorigin and Allen the following lands, characterized as the "Hot Springs Ranch":

> T4N, R50E, Sec 20, NW1/4SW1/4 (a portion of present-day Warm Springs Ranch).

Present-day Warm Springs Ranch consists of the following lands:

The earliest patent was for 40 acres. This was originally patented under an "Act of the Legislature of the State of Nevada, approved March 12, 1885, entitled "An act to provide for the selection and sale of lands that have been or may hereafter be granted by the United States to the State of Nevada'" on November 19, 1907. Patent 6044 was issued for the following lands:

> T4N, R50E, Sec 20, NW1/4SW1/4

Another 80 acres was originally patented by the United States on June 19, 1964 to Joe B. Fallini. Patent 27-64-0115 was issued for the following lands:

> T4N, R50E, Sec 21, N1/2SW1/4

Another 40 acres was originally patented by the United States on January 27, 1982 to Helen L. Fallini. Patent 27-82-0011 was issued for the following lands:

> T4N, R50 E, Sec 22, NW1/4SW1/4

3. Reveille Mill-Settled before 1883.

This parcel consists of 80 acres, Surveys showed the parcel settled prior to March, 1883. The parcel was originally patented under an "Act of the Legislature of the State of Nevada, approved March 12, 1885, entitled 'An act to provide for the selection and sale of lands that have been or may hereafter be granted by the United States to the State of Nevada'" on February 17, 1922, to Jewett W. Adams. Patent 9776 was issued for the following lands:

> T2N, R50E,

Sec 22, NE1/4SE1/4
Sec 23, NW1/4SW1/4

4. Reveille Mill Spring-Settled before 1883.

This parcel consists of 40 acres. Surveys showed this parcel was settled prior to March, 1883. This parcel was patented under an "Act of the Legislature of the State of Nevada, approved March 12, 1885, entitled ;An act to provide for the selection and sale of lands that have been or may hereafter be granted by the United States to the State of Nevada'" on February 17, 1922, to Jewett W. Adams. Patent 9828 was issued for the following lands:

T2N, R50 E, Sec 28, NE1/4SW1/4

5. Fivemile-Settled before 1913.

This parcel consists of 80 acres. The parcel, along with "Upper Eden Creek", was patented under an 'Act of the Legislature of the State of Nevada, approved March 12, 1885, entitled 'An act to provide for the selection and sale of lands that have been or may hereafter be granted by the United States to the State of Nevada'" on December 3, 1913, to Sophie Williams. Patent 7698 was issued for the following lands:

T1N, R50E,
Sec 10, SE1/4SE1/4;
Sec 11, NW1/4SW1/4

6. Upper Eden Creek-Settled before 1913.

This parcel consists of 39.71 acres. The parcel, along with "Fivemile", was patented under an 'Act of the Legislature of the State of Nevada, approved March 12, 1885, entitled 'An act to provide for the selection and sale of lands that have been or may hereafter be granted by the United States to the State of Nevada'" on December 3, 1913, to Sophie Williams. Patent 7698 was issued for the following lands:

T1N, R50E, Sec 4, Lot 2 of the NE 1/4

7. Upper Fivemile-Settled before 1922.

This parcel consists of 40 acres. The parcel was patented under an "Act of the Legislature of the State of Nevada, approved March 12, 1885, entitled 'An act to provide for the selection and sale of lands that have been or may hereafter be granted by the United States to the State of Nevada'" on February 17, 1922, to Helen G. Lynde. Patent 9887 was issued for the following lands:

T1N, R50E, Sec 15, SW1/4SW1/4.

8. Eden Creek-Settled before 1923.

This parcel consists of 158.54 acres, patented by United States on August 13, 1923 to Giovani Batista Fallini. Patent 915720 was issued for the following lands:

T1N, R50 E
Sec 3, Lots 3 and 4;
Sec 4, Lot one

T2N, R50E
Sec 34, SE1/4SW1/4

9. Bellehellen-Settled before 1923.

This parcel consists of 320 acres, patented by the United States on October 2, 1923 to Gustaf Richard Peterson. Patent 919004 was issued for the following lands:

T2N,R49E
Sec 12, SE1/4NW1/4, SW1/4NE1/4,W1/2SE1/4,SW1/4NW1/4;
Sec 11, E1/2NE1/4, NE1/4SE1/4

10. Cottonwood-Settled before 1938.

This parcel consists of 160 acres, patented by the United States on June 3, 1938 to Battista Vener. Patent 1097583 was issued for the following lands:

T2N, R50 E, Sec 21, SE1/4NE1/4, N1/2SE1/4, NE1/4SW1/4

11. Fallini Farm-developed prior to 1985.

This parcel consists of 709.15 acres, patented by United States on January 4, 1985 to Helen Fallini, Joe B. Fallini, Susan L. Fallini, Lorinda Fallini, Corrina Fallini, and Anna Fallini. Patent 27-85-0012 was issued for the following lands:

T5N, R50 E
Sec 12, SE1/4 SW1/4, SW1/4SE1/4;
Sec 13, NW1/4NE1/4, NE 1/4NW1/4, S1/2N1/2, N1/2S1/2, S1/2SE1/4;
Sec 24, N1/2NE1/4

T5N, R51E
Sec 18, lots 2 and 3

See map, **Exhibit 1.**

PRIVATE ISSUES 2-7. GRAZING PREFERENCE, BASE PROPERTY, NEVADA GRAZING RIGHTS, RANGE IMPROVEMENTS, FEDERAL GRANTS, AND WATER RIGHTS.

Each of Private Interest Issues 2-7 are independent issues, but are linked together so intimately that they are discussed herein collectively.

With the passage of the Taylor Grazing Act, Congress sought to recognize the rights of livestock users of the western lands who were settled and vested upon the land, and sought to curtail overuse of the rangeland by itinerant livestock operators who had no vested interest in the range and were not settled upon the land. In order to determine who would be recognized to hold grazing rights, a livestock user had to establish that he was settled upon the land, that is, held property which established his base of operation. This was termed "base property".

Base property was established by one of two types of ownership, namely "land base" and "water base". "Land base", which was generally established in the less-arid and cold-desert portions of the west, means that the livestock user owned and controlled sufficient land area upon which to grow forage sufficient to support his livestock when the livestock were not on the public range, such as sufficient property to grow hay for feeding the livestock during the winter. "Water base", which was generally established in the more-arid and warmer-desert portions of the west, means that the livestock user owned and controlled sufficient water rights and water production to provide for the watering needs of his livestock while the livestock were on the public range.

Water rights are established in Nevada via the "prior use" concept, and the showing of beneficial use. In other words, if a user of the waters of the state of Nevada established that he had "captured" for use waters of the state and was making beneficial use of those waters, he would, in general, be granted a water right. Vested rights are those existing uses which were occurring prior to 1913, when Nevada passed statutes regarding surface water regulation, use, and certification.

In order to capture the use of the water, range improvements were and continue to be necessary, in the form of developed springs or wells, and/or diverting water via ditch, canal, or pipeline, to ditches, troughs or reservoirs. As used by the Bureau of Land Management, "range improvements" also includes corrals, loading, and handling facilities necessary to manage livestock.

Generally speaking, the "service area" of a livestock water range improvement in a water-base property situation was and is considered to be that area within a four-mile radius of the developed water. The livestock forage available within that four-mile radius established the federal grazing preference for the water-base property.

Federal grants are considered to include all range improvements installed prior to the passage of the Federal Land Policy and Management Act (FLPMA) in 1976. Most, but not all, of the range improvements within the Reveille Allotment pre-date the passage of FLPMA and those that do pre-date FLPMA therefore are considered federal grants.

Aside from, and in addition to, grazing rights recognized by the Taylor Grazing Act (TGA), the State of Nevada recognizes the same rights as are recognized by the TGA, as a matter of state law. These are referred to as state grazing rights.

State grazing rights on federal lands are defined and described by the Nevada Revised Statutes (NRS), as follows:

> NRS 568.230 Grazing interfering with customary use of land unlawful; exceptions.

1. It is unlawful to graze livestock on any part of the unreserved and unappropriated public lands of the United States in the State of Nevada, when grazing will or does prevent, restrict or interfere with the customary use of the land for grazing livestock by any person who, by himself or his grantors or predecessors, has become established, either exclusively or in common with others, in the grazing use of the land by operation of law or under and in accordance with the customs of the graziers of the region involved.

2. NRS 568.230 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec230> to 568.290 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec290> , inclusive, does not prohibit the grazing on any public lands of livestock owned, kept or used for work or milking purposes by any ranch owner or bona fide settler, for his domestic use, as distinguished from commercial use, or prohibit the grazing of any livestock necessary for and used in connection with any mining or construction work or other lawful work of similar character.

[Part 1:226:1931; 1931 NCL § 5581](NRS A 1985, 526)

NRS 568.240 Customary or established use: Definition; change.

1. Customary or established use as graziers, otherwise than under operation of law, as used in NRS 568.230 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec230> to 568.290 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec290> , inclusive, shall be deemed to include the continuous, open, notorious, peaceable and public use of such range seasonally for a period of 5 years or longer immediately before March 30, 1931, by the person or his grantors or predecessors in interest, except in cases where initiated without protest or conflict to prior use or occupancy thereof.

2. Any change in customary use so established must not be made after March 30, 1931, so as to prevent, restrict or interfere with the customary or established use of any other person or persons.

[Part 1:226:1931; 1931 NCL § 5581](NRS A 1985, 526)

NRS 568.250 Continued use by established user not prohibited. NRS 568.230 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec230> to 568.290 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec290> , inclusive, does not prohibit any such established user from continuing his grazing use, as established by operation of law or in accordance with such customs.

[2:226:1931; 1931 NCL § 5581.01](NRS A 1985, 526)

NRS 568.260 Penalty; liability for damages. Any person violating any of the provisions of NRS 568.230 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec230> to 568.290 <http://www.leg.state.nv.us/nrs/NRS-

568.html#NRS568Sec290> , inclusive, is guilty of a misdemeanor, and, independently of the foregoing penalty, is liable to any person injured for all damages sustained by reason of the violation, and for such exemplary damages as the circumstances may warrant.

[3:226:1931; 1931 NCL § 5581.02](NRS A 1967, 616; 1985, 527)

NRS 568.270 Restraint of violation by injunction. The violation of any provision of NRS 568.230 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec230> to 568.290 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec290> , inclusive, may be restrained by injunction, issued by a court of competent jurisdiction, pursuant to the provisions of law and principles of equity relating to injunctions.

[4:226:1931; 1931 NCL § 5581.03](NRS A 1985, 527)

NRS 568.280 Free transit over and rights in public domain not prohibited. Nothing contained in NRS 568.230 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec230> to 568.290 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec290> , inclusive, prohibits free transit over and rights in the public domain where provided by the Acts of Congress.

[6:226:1931; 1931 NCL § 5581.05](NRS A 1985, 527)

NRS 568.290 Purpose; construction.

1. NRS 568.230 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec230> to 568.290 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec290> , inclusive, shall be deemed an exercise of the police power of the state, for the protection of the economic welfare and peace of the people of the state, and all of their provisions must be liberally construed for the accomplishment of its purposes.

2. Nothing in NRS 568.230 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec230> to 568.290 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec290> , inclusive, amends or repeals existing law regarding the grazing use of the public lands or of water for the purpose of watering livestock, or modifies or compromises any valid rights or priorities which exist therein on March 30, 1931.

[7:226:1931; 1931 NCL § 5581.06](NRS A 1985, 527)

UNLAWFUL ACTS AND PENALTIES; LIABILITY FOR DAMAGES

NRS 568.300 Herding or grazing of livestock on land of another without consent unlawful; liability for damages; attachment.

1. It shall be unlawful for any person to herd or graze any livestock upon the lands of another without having first obtained the consent of the owner of the lands so to do. The person claiming to be the owner of such lands shall have the legal title thereto, or an application to purchase the same with the first payment made thereon.

2. The livestock which is herded or grazed upon the lands of another, contrary to the provisions of subsection 1, shall be liable for all damages done by such livestock while being unlawfully herded or grazed on the lands of another, together with costs of suit and reasonable counsel fees, to be fixed by the court trying an action therefor. The livestock may be seized and held by a writ of attachment, issued in the same manner as provided in chapter 31 <http://www.leg.state.nv.us/nrs/NRS-031.html#NRS031> or 71 <http://www.leg.state.nv.us/nrs/NRS-071.html#NRS071> of NRS, as security for the payment of any judgment which may be recovered by the owner of such lands for damages incurred by reason of violation of any of the provisions of this section. The claim and lien of a judgment or attachment in such an action shall be superior to any claim or demand which arose subsequent to the commencement of the action.

3. This section shall not apply to any livestock running at large on the ranges or commons.

[1:31:1893; C § 780; RL § 2335; NCL § 4019] + [2:31:1893; C § 781; RL § 2336; NCL § 4020] + [3:31:1893; C § 782; RL § 2337; NCL § 4021]

NRS 568.330 Herding or grazing of livestock in certain areas near water supply unlawful; penalty.

1. It is unlawful for any person, firm, corporation or association owning or having charge of any livestock to herd, graze, pasture, keep, maintain or drive the same upon, over or across any lands lying within an area that has been identified by the board of county commissioners in the county in which the area is situated as unsuitable for such uses in order to protect any surface intake, intakes, water boxes or surface reservoirs into which water is diverted for use for municipal, drinking or domestic purposes in the state. A determination by the board of county commissioners that an area is unsuitable must be based upon scientific evidence and must be adopted by ordinance after consultation with affected persons and state agencies. The ordinance must describe the area that is determined to be unsuitable and notice of the determination and description must be posted in a conspicuous place in the area.

2. Subsection 1 must not be construed to apply to:

(a) Prospectors or other persons passing over or being temporarily upon such lands with not to exceed 10 head of livestock.

(b) Livestock running at large upon the range, unless by county ordinance any board of county commissioners has provided otherwise in the case of the county concerned.

(c) Persons that are herding, grazing, pasturing, keeping, maintaining or driving livestock on their own lands.

3. Any person violating any of the provisions of this section shall be guilty of a misdemeanor.

4. Each day the acts declared to be unlawful in subsection 1 are committed, done and continued constitutes separate, distinct and new offenses.

[1:188:1915; A 1929, 195; NCL § 3996] + [2:188:1915; A 1929, 195; NCL § 3997] + [3:188:1915; 1919 RL p. 2845; NCL § 3998](NRS A 1967, 617; 1995, 797)

NRS 568.340 Herding or grazing of livestock at spring or well of another or within 1 mile of home or ranchhouse unlawful; liability for damages.

1. It shall be unlawful for any person owning or having charge of any livestock to drive or herd or permit the same to be herded or driven on the lands or possessory claims of other persons, or at any spring or springs, well or wells, belonging to another, to the damage thereof, or to herd the same or to permit them to be herded within 1 mile of a bona fide home or a bona fide ranchhouse.

2. The owner or agent of the owner of livestock violating the provisions of subsection 1, on complaint of the person injured in any court of competent jurisdiction, shall be liable to the person injured for actual and exemplary damages.

3. Nothing in this section shall:

(a) Prevent the owners from herding or grazing their livestock on their own lands.

(b) Be construed as to prevent livestock being driven along any public highway.

[1:81:1917; 1919 RL p. 2845; NCL § 3999] + [2:81:1917; 1919 RL p. 2845; NCL § 4000]

NRS 568.350 Unauthorized driving of livestock from range unlawful; penalty; liability for damages.

1. It shall be unlawful for any person to lead, drive or in any manner remove any horse, mare, colt, jenny, jack, mule, or any head of neat cattle, or hog, sheep, goat, or any number of these animals, the same being the property of another person, from the range on which they are permitted to run in common, without the consent of the owner thereof first had and obtained.

2. The owner of any such animals, finding the same running on the herd grounds or commons with other animals of the same kind, is permitted to drive his own animal or animals, together with such other animals as he cannot conveniently separate from his own, to the nearest and most convenient corral or other place for separating his own from other animals if he, in such case, immediately, with all convenient speed, drives all such animals not belonging to him back to the herd ground from which he brought such animals.

3. Any person violating the provisions of this section shall be guilty of a misdemeanor.

4. In addition to the penalty provided for in subsection 3, such person shall be civilly liable to the owner of livestock so removed from the range for the value of all such stock and the necessary expenses incident to their return.

[1911 C&P § 377; A 1929, 108; NCL § 10329](NRS A 1967, 617)

NRS 568.355 Open range defined. As used in NRS 568.360 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec360> and 568.370 <http://www.leg.state.nv.us/nrs/NRS-568.html#NRS568Sec370> , unless the context otherwise requires, open range means all unenclosed land outside of cities and towns upon which cattle, sheep or other domestic animals by custom, license, lease or permit are grazed or permitted to roam.

(Added to NRS by 1983, 235)

NRS 568.360 Duties of owners of domestic animals with respect to domestic animals upon highway.

1. No person, firm or corporation owning, controlling or in possession of any domestic animal running on open range has the duty to keep the animal off any highway traversing or located on the open range, and no such person, firm or corporation is liable for damages to any property or for injury to any person caused by any collision between a motor vehicle and the animal occurring on such a highway.

2. Any person, firm or corporation negligently allowing a domestic animal to enter within a fenced right-of-way of a highway is liable for damages caused by a collision between a motor vehicle and the animal occurring on the highway.

(Added to NRS by 1965, 644; A 1983, 235)

NRS 568.370 Permitting dog to chase, worry, injure or kill domestic animals on open range or private property unlawful.

1. It is unlawful for any person to permit a dog to chase, worry, injure or kill cattle, sheep or other domestic animals on the open range or on private property.

2. Subsection 1 does not apply to the use of a dog to herd domestic animals at the direction or with the permission of the owner of those animals.

3. Any person who violates the provisions of subsection 1 is guilty of a misdemeanor.

(Added to NRS by 1983, 235)

Fallini owns all of the base property, range improvements, livestock and vested water rights, grazing preference, and state grazing rights within the Reveille Allotment. In the impact area of the proposed Caliente rail route within the Reveille Allotment, all of the described range improvements are federal grants, with the exception of the end-of-line trough at Fivemile Spring and Pipeline and the end-of-line trough of George's Water Pipeline Extension.

In the impact area of the proposed Caliente rail route within the Reveille Allotment, the water rights (including vested rights), base property, grazing preference, range improvements, state grazing rights, and federal grants that will be impacted are associated with the service areas served by Black Springs and Pipeline, Reveille Mill Spring and Pipeline, Fivemile Spring and Pipeline, George's Water Pipeline and Extension, Volcano Reservoir, Witch Well and Pipeline, Cedar Pipeline (including Four Troughs) and Extension, Ned's Cache Spring and Pipeline, Deep Well, and Buck's Water. In addition, service areas of Reveille Peak Reservoir and Frak Tank and Queen City Reservoir will be impacted. Each of these water developments will have curtailment of its service area as a result of construction and operation of the rail route. In some but not all cases, the four-mile-radius service area being curtailed by the rail route will continue to be covered by other waters which otherwise service the curtailed acreage, but water redundancy (i.e., more than one water source within the service area) will be lost in much of the affected area. See further discussion of each improvement below.

In the impact area of the proposed Caliente rail route through the Reveille Allotment, the following water rights, base property, grazing preference, range improvements, state grazing rights, and federal grants exist (see map, **Exhibit 2**).

a. Black Springs and Pipeline. This system begins at Black Springs (see **Exhibit 3**, Map and Photos 1, 2), which is a tunnel-type spring development (see Exhibit 3, Map and Photos 3, 4). The system is developed into a pipeline/trough/ reservoir and corral system that includes "Upper Black Springs Trough and Reservoir" (see Exhibit 3, Map and Photos 5, 6), "Lower Black Springs Trough and Corrals" (see Exhibit 3, Map and Photo 9), and several other reservoirs fed by the pipeline. The system is approximately 9 miles long (see, for example, Exhibit 3, Map and Photos 7, 8), and services livestock use and base property for approximately 76,800 acres within the Reveille Allotment.

b. Reveille Mill Spring and Pipeline. This system begins at Reveille Mill (see Exhibit 3, Map and Photos 10-12), and is developed into a pipeline/trough/ reservoir and corral system that is approximately 16 miles long, and services livestock use and base property for approximately 109,200 acres within the Reveille Allotment.

c. Fivemile Spring and Pipeline. This system begins approximately 3 miles west of the proposed Caliente Option, and terminates at a trough and corral (see Exhibit 3, Map and Photos 13-16) that lie directly in the path of the proposed route. The system services livestock use and base property for approximately 56,320 acres.

d. George's Water Pipeline extension. This system begins in the Nellis Air Force Base reservation approximately 5.5 miles west of the proposed Caliente Option, and terminates at a trough and corral (see Exhibit 3, Map and Photos 17-19) that lie directly in the path of the proposed route. The system services livestock use and base property for approximately 20,500 acres.

e. Volcano pit reservoir (see Exhibit 3, Map and Photo 20). This reservoir catches annual precipitation and stores it for use by livestock, but wildlife also make extensive use of the reservoir. The reservoir lies directly in the path of the proposed route, between the "east alternative route" and the "west alternative route", just north of where the "central alternative route" joins on the north end the "west alternative route". The reservoir services livestock use and base property for approximately 32,200 acres.

f. Witch Well and Pipeline (see Exhibit 3, Map and Photos 21-24). This well lies directly in the path of the proposed route, between the "east alternative route" and "central alternative route", just south of where the "central alternative route" joins on the north end the "west alternative route". The water at Witch Well is supplemented via eight miles of pipeline joining Witch Well to George's Water Pipeline. The well services livestock use and base property for approximately 32,200 acres.

g. Cedar Pipeline, including Four Troughs, and Cedar Pipeline Extension. This system begins in the Nellis Air Force Base reservation (access via a separate agreement), approximately 8 miles west of the proposed Caliente Option "west alternative", and includes 15 miles of pipeline/trough/ reservoir and corral system components. . Cedar Pipeline has a trough and corral at Four Troughs (see Exhibit 3, Map and Photos 25-28), approximately 1/2 mile south of the "west alternative" route, and terminates at Cedar Pipeline Ranch (see Exhibit 3, Map and Photo 29), approximately 1.0 mile south of the Caliente Option. Cedar Pipeline Extension (see Exhibit 3, Map and Photo 30) runs east from Cedar Pipeline Ranch another four miles, and terminates at a trough and reservoir that is approximately 1.25 miles south of the Caliente Option. The system services livestock use and base property for approximately 44,200 acres.

h. Ned's Cache Pipeline. This system begins at Ned's Cache well (see Exhibit 3, Map and Photo 31), and Ned's Cache Spring (see Exhibit 3, Map and Photo 32), with an upper (eastern) trough (see Exhibit 3, Map and Photo 33), approximately three miles west of the proposed Caliente Option. The system terminates at a lower (western) trough and reservoir (see Exhibit 3, Map and Photo 34) that lie directly in the path of the proposed route. The system services livestock use and base property for approximately 35,000 acres.

i. Deep Well. This well (see Exhibit 3, Map and Photo 35) is located approximately 3 miles north of the proposed Caliente Option. This base property water development services livestock use and base property for approximately 32,200 acres.

j. Buck's Water (no photo). This system begins at a spring development approximately 2.5 miles north of the proposed Caliente Option, and is piped northwest approximately 1.5 miles to a trough location approximately 3 miles north of the proposed Caliente Option. The system services livestock use and base property for approximately 16,600 acres.

k. Reveille Peak Reservoir. This reservoir is a water-haul range improvement (see Exhibit 3, Map and Photo 36) that lies approximately 2.25 miles north of the proposed Caliente Option. While it is not base property, it is a range improvement that is used to service livestock use for approximately 32,000 acres.

l. Frak tank and Queen City Reservoir. This tank and reservoir are a water-haul range improvement (see Exhibit 3, Map and Photo 37) that lies approximately 0.75 mile south of the proposed Caliente Option. While they are not base property, they are a range improvement that is used to service livestock use for approximately 32,000 acres.

PRIVATE ISSUES 8 - 13. WILDLIFE, RECREATION, AESTHETICS, CULTURAL RESOURCES, WILD HORSES, WILDERNESS/WSAS.

The private interests of Fallini in the wildlife, recreation, aesthetics, cultural resource, wild horses, and wilderness study area/wilderness values are the same as for the general public (see public interest issues). However, the degree to which the private livestock owners are involved in these interests is more intensive than the interests of the general public.

Fallini has constructed spring developments, pipelines, water facilities (including troughs and reservoirs) that have increased the distribution and available water sources for wildlife, including mule deer, pronghorn, sage grouse, geese, ducks, and a variety of game and non-game animals. See, for example, Exhibit 3, Map and Photos 38-39, which shows mallard ducks using the permittee-constructed pond/reservoir at "Upper Black Spring Trough and Reservoir". See also, for example, Exhibit 3, Map and Photo 19, which shows the permittee-constructed reservoir at "George's Water Pipeline Extension".

In 1986, Fallini was instrumental in establishing the thriving ecological balance of wild horses within the Reveille Allotment, and is intimately interested in the viability and free-roaming nature of the wild horses within the Reveille Wild Horse Herd Management Area.

Members of the Fallini family also hunt, hike, rock climb, picnic, rock hound, and otherwise retreat and recreate within the wilderness study areas and other wild portions of the Reveille Allotment, including the Reveille Wilderness Study Area and the Kawitch Wilderness Study Area.

The Fallini family has on numerous occasions also rendered first-aid and life-saving assistance to other users of the public land in and around the Reveille Allotment, including first response to Nellis Air Force Base jet crash victims very near the proposed Caliente rail route, and also including delivering water via helicopter to hikers stranded without water in rugged terrain.

PRIVATE ISSUE 14. MONITORING INVESTMENT.

Rangeland monitoring by Fallini has been continuous and ongoing for more than twenty years, and has included, but is not necessarily limited to, monitoring site selection in conjunction with the Bureau of Land Management; wild horse censusing; livestock, wild horse, and wildlife utilization monitoring; ecological condition and forage production monitoring; and trend-of-condition monitoring. Fallini has invested literally hundreds of thousands of dollars in such investment.

The proposed Caliente rail route impact area includes thirteen of thirty-eight monitoring locations employed by Fallini to adjust livestock use, distribution, and grazing capacity within the Reveille Allotment, and to determine accomplishment of livestock, forage, watershed, wildlife, and wild horse management objectives within the Reveille Allotment.

B. Issues Affecting Public Interests in the Reveille Allotment.

The public land within the Reveille Allotment is within Battle Mountain Grazing District, Nevada. See Taylor Grazing Act, 43 U.S.C. § 315 (wherein "the Secretary of the Interior is authorized ... to establish grazing districts ... from any part of the public domain of the United States ... and which in his opinion are chiefly valuable for grazing and raising forage crops").

The public land within the Reveille Allotment is also within the Tonopah Planning Area of the Battle Mountain Grazing District, Nevada. This planning area is controlled by and subject to a land use plan adopted in accordance with the Federal Land Policy and Management Act. See 43 U.S.C. § 1712 (wherein "The Secretary shall, with public involvement and consistent with the terms and conditions of this Act, develop ... land use plans which provide by tracts or areas for the use of the public lands. Land use plans shall be developed for the public lands regardless of whether such lands previously have been classified, withdrawn, set aside, or otherwise designated for one or more uses"). The law provides that "All future resource management authorizations and actions (within the planning area), as well as budget or other action proposals to higher levels of the Bureau of Land Management and Department (of Interior), and subsequent more detailed or specific planning (within the planning area), **shall conform** to the approved (land use) plan." See 43 C.F.R. § 1610.5-3(a). Emphasis supplied. See also 43 C.F.R. § 4100.0-8. See also 1997 RMP/ROD, p. 26 (wherein a Standard Operating Procedure for the land use plan applicable to the Tonopah Planning Area states that "All future authorizations will be in conformance with the RMP").

The land use plan applicable to the Tonopah Planning Area is the "Approved, Tonopah Resource Management Plan and Record of Decision" dated October 1997. The applicable portions are attached as **Exhibit 4 ("1997 RMP/ROD")**. This 1997 RMP/ROD arose from a scoping process that began in 1990. Between 1990 and 1993, a Draft Tonopah Resource Management Plan and Environmental Impact Statement was prepared, ultimately concluding in the issuance of "Draft Tonopah Resource Management Plan and Environmental Impact Statement" dated June 1993. Between 1993 and 1994, a Proposed Tonopah Resource Management Plan and Final Environmental Impact Statement was prepared, ultimately concluding in the issuance of the "Proposed Tonopah Resource Management Plan and Final Environmental Impact Statement"

dated October 1994. Between 1994 and 1997, BLM evaluated the protests that were filed to the Proposed RMP/FEIS, ultimately concluding in the issuance of the 1997 RMP/ROD.

The 1997 RMP/ROD established resource management "objectives" and related RMP "determinations" relative to a range of resource uses within the Tonopah Planning Area, including, but not limited to, watershed, vegetation, visual resource management, wildlife habitat management, special status species, livestock grazing management, wild horses and burros, cultural resources, lands and rights-of-way, recreation, wilderness, fluid minerals, locatable minerals, and fire management. Each of these resource management "objectives", related RMP "determinations" and related "Standard Operating Procedures" control the types of future resource management authorizations and actions that may occur on the public land within the Tonopah Planning Area. See 43 C.F.R. § 1610.5-3(a). See also 43 C.F.R. § 4100.0-8.

The resource management "objectives", related RMP "determinations", and "Standard Operating Procedures" ("SOP") applicable to the withdrawal area for the Caliente RR Route within the Reveille Allotment are discussed below. See 1997 RMP/ROD, p. 38 (which states that "The Standard Operating Procedures section ... explains most of the monitoring procedures and mitigation measures in common use"). At the outset, it must be stated that nine year land use planning process culminating in the 1997 RMP/ROD did not consider or evaluate the Caliente RR Route as within the Tonopah Planning Area. In addition, the 1997 RMP/ROD did not specifically authorize the Caliente RR Route as within the Tonopah Planning Area. See also 43 U.S.C. §§ 1761-1771 (laws relating to the issuing rights-of-way upon public land).

Public Interest Issue 1: Watersheds

The 1997 RMP/ROD objective is "To maintain or improve watershed condition in the Tonopah Planning Area". See 1997 RMP/ROD, p. 5. See also Map 3 in 1997 RMP/ROD.

* The related SOP is that "Best Management Practices and appropriate mitigation will be identified during project-level environmental review and applied during project implementation for any ground-disturbing activity that may reduce soil productivity or cause surface erosion." See 1997 RMP/ROD, p. 27.

Reveille Allotment includes the Lower Railroad watershed, Lower Hot Creek watershed, and Kawich watershed within the withdrawal area for the Caliente RR Route.

Public Interest Issue 2: Vegetation.

The 1997 RMP/ROD objective is "To provide for vegetative and ecological diversity." See 1997 RMP/ROD, p. 5.

* The related determination is to "Manage the vegetation resource for desired plant communities" and "Management of the vegetative resource will provide for the physiological needs ... of the key forage plant species." See 1997 RMP/ROD, p. 5. See also Map 5 in 1997 RMP/ROD.

Public Interest Issue 3: Visual Resource Management.

The 1997 RMP/ROD objective is "To designate visual resource management classes and maintain existing scenic qualities". See 1997 RMP/ROD, p. 6.

* The related determination is to "Manage the Tonopah Planning Area for the following Visual Resource Management ... classes." See 1997 RMP/ROD, p. 6. See also Map 7 in 1997 RMP/ROD. Class IV VRM rating provides that "Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic elements (form, line, color, texture) inherent in the characteristic landscape." See 1997 RMP/ROD, p. 6. Class IV VRM rating adds that "Structures in the foreground distance zone (0-1/2 mile) often create a contrast that exceeds the VRM class ... Approval by the Area Manager is required on a case-by-case basis to determine whether the structure(s) meet the acceptable VRM class standards." See 1997 RMP/ROD, p. 6.

* The related SOP is that "Visual resources will continue to be evaluated, using the Contrast Rating process, as a part of activity and project planning. These evaluations will consider the significance of the proposed project and the visual sensitivity of the affected area. Stipulations will be developed and attached to project authorizations to maintain designated VRM classes. Stipulations may include requirements to locate activity sites behind topographic features to hide them from view, modify access routes, color buildings and equipment to blend in with their surrounds, develop projects in phases, etc. If VRM class objectives cannot be met, the impacts to visual resources will be detailed in the project-level environmental analysis and used by the Authorized Officer as a factor in the decision to authorize or deny a proposed action." See 1997 RMP/ROD, p. 27.

Reveille Allotment includes a Class IV VRM rating within the withdrawal area for the Caliente RR Route.

Public Interest Issue 4: Wildlife Habitat Management.

The 1997 RMP/ROD objective is "To maintain and enhance wildlife habitat and provide for species diversity". See 1997 RMP/ROD, p. 7.

* The related determination is to "Manage mule deer habitat for best possible condition within the site potential ..." See also Map 10 in 1997 RMP/ROD.

* The related SOP is that "... wildlife habitat will continue to be evaluated as part of project-level planning. Such evaluation will consider the significance of the proposed project and the sensitivity of ... wildlife habitat in the affected area. Stipulations will be attached as appropriate to assure compatibility of projects with management objectives for ... wildlife habitat. See 1997 RMP/ROD, p. 28.

Reveille Allotment includes mule deer range within the withdrawal area for the Caliente RR Route.

* The related determination is to "Manage pronghorn antelope habitat for best possible condition within the site potential. In conjunction with (NDOW) ... continue to support the reintroduction and augmentation of antelope ... Develop additional water sources." See also Map 9 in 1997 RMP/ROD.

Reveille Allotment includes pronghorn antelope habitat within the entire withdrawal area for the Caliente RR Route.

Public Interest Issue 5: Special Status Species.

The 1997 RMP/ROD objective is "To protect, restore, enhance, and expand habitat of species identified as threatened, endangered, or Nevada BLM Sensitive Species under the Endangered Species Act." See 1997 RMP/ROD, p. 9.

* The related determination is that "Habitat for all Federally listed threatened or endangered species or Nevada BLM Sensitive Species (plant and animal) will be managed to maintain or increase current populations of these species ..." See 1997 RMP/ROD, p. 9. See also 1997 RMP/ROD, p. 28.

* The related SOP is that "It is BLM policy to carry out the management of Nevada BLM Sensitive Species consistent with multiple-use for conservation of these species and their habitats and ensure that actions authorized or funded do not contribute to the need to list any of these species as threatened or endangered. In order to prevent listing of Nevada BLM Sensitive Species, BLM may enter into Conservation Agreements or Species Management Plans with the U.S. Fish and Wildlife Service." See 1997 RMP/ROD, p. 28.

There are no known threatened or endangered species within the Reveille Allotment, However, BLM lists a total of fifteen species of animals which are classified as sensitive species: eight species of mammal, one species of fish, three species of shorebirds and wading birds, two species of raptors, and one species of "other birds". Specifically, BLM's most recent allotment evaluation, dated May 14, 1999, lists the following sensitive species animals: spotted bat, small-footed myotis, long-eared myotis, fringed myotis, long-legged myotis, Yuma myotis, Pale Townsend's big-eared bat, pygmy rabbit, Hot Creek tui chub, white-faced ibis, black tern, least bittern, Northern goshawk, ferriginous hawk, western burrowing owl, and loggerhead shrike. The Hot Creek tui chub is specifically protected by State law (Nevada Revised Statute 501). See **Exhibit 5**, which is BLM's Appendix D from the 1999 allotment evaluation.

In addition, BLM's 1999 Reveille Allotment evaluation lists the following sensitive plant species: Cane Spring suncup, sanicis biscuitroot, Nye gilia, bashful beardtongue, Williams combleaf, Blaine pincusion, and Tonopah fishhook cactus. Williams combleaf is considered "critically endangered" by the State of Nevada (NRS 527.260-.300), and Blain pincusion and Tonopah fishhook cactus are protected by State law as "cactus, yucca or Christmas tree" under NRS 527.060-.120. See Exhibit 5.

Included as part of Exhibit 5 is the Nevada Natural Heritage Program's listing of known sensitive species in or near the Reveille Allotment (see above). One of the sensitive plant species, specifically Tonopah fishhook cactus, is known to exist in the direct path of the proposed Caliente Option, in Township 2 North, Range 50 East, Section 1.

Public Interest 6: Livestock Grazing Management.

The 1997 RMP/ROD objective is "To create healthy, productive rangelands through implementation of the recommendations of the ongoing rangeland monitoring and evaluation program." See 1997 RMP/ROD, p. 12.

* The related determination is that "The Tonopah MFP and Tonopah Grazing EIS ... provide the guidance necessary for the livestock grazing program." See 1997 RMP/ROD, p. 12. See also Map 16 in 1997 RMP/ROD (wherein allotments are identified).

* The related determination is to "Manage livestock at initial stocking levels of 134,355 animal unit months". See 1997 RMP/ROD, p. 12.

* The related SOP is that "The clearing of vegetation from project sites will be restricted to the minimum amount necessary to properly and safely complete the project." See 1997 RMP/ROD, p. 29.

* The related SOP is that "All disturbed areas will be rehabilitated, where such action is necessary and/or practical, to replace ground cover and prevent erosion. ... All fences will be designed to assure a minimum of impacts to wildlife, wild horses/burros, recreation, and visual resources." See 1997 RMP/ROD, p. 29.

* The related SOP is that "Alteration of sagebrush areas either through herbicides, prescribed burning, or by mechanical means will be in accordance with procedures specified in the Western States' Sage Grouse Guidelines and the Memorandum of Understanding between Nevada Division of Wildlife and the Nevada BLM. ..." See 1997 RMP/ROD, p. 29.

* The related SOP is that "Vegetative manipulations that will alter the potential natural plant composition will not be allowed in riparian areas. ..." See 1997 RMP/ROD, p. 29.

The initial stocking level for the Reveille Allotment is 25,730 AUMs for livestock (plus 1,980 AUMs for wild horses within Reveille HMA). See 1997 RMP/ROD, p. A-12. See also 43 C.F.R. §§ 4100.0-5, 4130.8-1(c) (wherein the definition of AUM or Animal Unit Month is defined and described).

Public Interest Issue 7: Wild Horses and Burros.

The 1997 RMP/ROD objective is "To manage wild horse and/or burro populations within Herd Management Areas at levels which will preserve and maintain a thriving natural ecological balance consistent with other multiple-use objectives." See 1997 RMP/ROD, p. 14.

* The related determination is to "Manage wild horses ... in 16 herd management areas". See 1997 RMP/ROD, p. 14. See also Map 18 in 1997 RMP/ROD (wherein Herd Management Areas are identified).

* The related SOP is that "It is the intent of the BLM to manage wild horses ... and their habitat within areas occupied in 1971. ... The suitability of some areas to support wild horses ... will be reassessed as appropriate in light of new information from monitoring and emergency gathers." See 1997 RMP/ROD, p. 30.

The Reveille Herd Management Area is within a portion of the Reveille Allotment. Part of the withdrawal area for the Caliente RR Route will cross through the middle of and dissect the Reveille HMA.

* The related determination is to "Manage wild horses ... at appropriate management level ... for each herd management area". See 1997 RMP/ROD, p. 14.

The Reveille Herd Management Area is within a portion of the Reveille Allotment. Part of the withdrawal area for the Caliente RR Route will cross through the middle of and dissect the Reveille HMA. The wild horses appropriate management level for the Reveille HMA is 145-165 horses. See 1997 RMP/ROD, p. 15.

Public Interest Issue 8: Cultural Resources.

The 1997 RMP/ROD objective is "To protect archaeological, historical, paleontological, and sociocultural resources and manage for information potential, ... public values, ... and conservation ... in conjunction with other multiple uses. . . ." See 1997 RMP/ROD, p. 16.

* The related SOP states that "The National Historic Preservation Act of 1966, ... the Archaeological and Historic Preservation Act of 1974; the Archaeological Resources Protection Act of 1979; the American Indian Religious Freedom Act of 1978; the Native American Graves Protection and Repatriation Act of 1990; FLPMA; and Executive Order 11593 provide for the protection and management of cultural resources. ..." See 1997 RMP/ROD, p. 30.

* The related SOP states that "The BLM is required to identify, evaluate, and protect cultural resources on public lands under its administration and to ensure consideration of cultural resources prior to initiation of proposed BLM-authorized activities. If an area will be in any way affected by those activities, a cultural resources inventory will be conducted. ..." See 1997 RMP/ROD, p. 30.

* The related SOP states that "Avoidance of cultural properties is the preferred mitigation. ..." See 1997 RMP/ROD, p. 30.

* The related SOP states that "If eligible properties cannot be avoided, appropriate mitigating measures will be developed in consultation with the Nevada State Historic Preservation Office and the President's Advisory Council on Historic Presentation. No action will be authorized until these agencies are consulted." See 1997 RMP/ROD, p. 30.

Part of the withdrawal area for the Caliente RR Route within the Reveille Allotment crosses Petroglyphs near Witch Well and Pipeline and crosses through an area of Native American cave occupation and cultural sites at the eastern allotment boundary.

* The related determination is to "Classify and manage the following cultural resources for their information potential, public values, and conservation. .....Manage for conservation rock shelters . . . historic sites associated with established mining districts, locally important ranching operations or major transportation routes. . . and sites containing paleoenvironmental data." See 1997 RMP/ROD, pp. 16-17. See also 1997 RMP/ROD, pp. A-27, A-28.

The livestock grazing permittee "1/2 Fallini, 1/2 Fallini Living Trust" (aka the Fallini Family) has grazed livestock upon the Reveille Allotment and within the area of the withdrawal area for the Caliente RR Route for over 100 years and is a "locally important ranching operation".

Public Interest Issue 9: Lands and Rights-of-Way.

The 1997 RMP/ROD objective is "To make lands available for community expansion and private economic development and to increase the potential for economic diversity." See 1997 RMP/ROD, p. 18.

* The related determination is "Make an additional 255,380 acres of public lands available for potential disposal." See 1997 RMP/ROD, p. 18. See also Map 20 in 1997 RMP/ROD (wherein Land Tenure areas are identified).

Certain public land is available within the Reveille Allotment, but outside the withdrawal area for the Caliente RR Route, for disposal. See also Map 20 in 1997 RMP/ROD (wherein Land Tenure areas are identified).

* The related determination is "All other lands within the Tonopah Planning Area in which there are no unresolvable conflicts with other resource values will be open to consideration for linear or areal rights-of-ways, leases, and land-use permits. Any such grants, leases, or permits will include appropriate stipulations to protect the area's special values." See 1997 RMP/ROD, p. 19. See also Map 20 in 1997 RMP/ROD (wherein "Utility Corridors" are identified). See also Map 22 in 1997 RMP/ROD (wherein Right-of-Way avoidance areas are identified).

* The related SOP states that "Unless these lands are dedicated to a specific use or uses, or are included within avoidance or exclusion areas, they are available for rights-of-way ..." See 1997 RMP/ROD, p. 32.

* The related SOP states that "All new proposed withdrawals must be identified in an approved land-use plan." See 1997 RMP/ROD, p. 32.

* The related SOP states that "Unless the land has been dedicated for a specific use or uses, public land within the Tonopah Planning Area is available for consideration for linear rights-of-way, and for utility transportation and distribution purposes. Such land is also available for areal rights-of-way purposes." See 1997 RMP/ROD, p. 33.

* The related SOP states that "Prior to issuance of right-of-way authorization, a site-specific environmental analysis is performed which considers, among other things, habitat of threatened, endangered, or Nevada BLM Sensitive Species; sites or places listed or eligible for inclusion on the National Register of Historic Places; wilderness areas and areas being studied for wilderness; riparian areas; nesting/breeding habitat for animals; big game seasonal habitat; visual resources; and other considerations mandated by law." See 1997 RMP/ROD, p. 33.

* The related SOP states that "Designated right-of-way corridors within the Tonopah Planning Area are three miles wide except where topographic constraints exist. Grants for rights-of-way are still required for facilities placed within designated corridors. Designation of a corridor does not necessarily mean that future rights-of-way are restricted to corridors, nor does it mean that there is a commitment by the BLM to approve all right-of-way applications within corridors. ..." See 1997 RMP/ROD, p. 33.

Certain public land within the Reveille Allotment is subject to a Utility Corridor, but only minor part of such Utility Corridor is within withdrawal area for the Caliente RR Route. The withdrawal area for the Caliente RR Route is not "identified" in the Tonopah 1997 RMP/ROD. See Map 20 in 1997 RMP/ROD (wherein Utility Corridor is identified).

Public Interest Issue 10: Recreation.

The 1997 RMP/ROD objective is "To encourage safe, public access and recreational use of public lands while ensuring protection of important resource values." See 1997 RMP/ROD, p. 20.

* The related determination is "In order to protect sensitive resource values such as threatened and endangered species and cultural resources, designate 1,250,290 acres as limited to vehicle use (restrictions limiting use to existing roads, trails, and washes; seasonally, or by type of user) and keep 4,840,811 acres open to unrestricted vehicle use." See 1997 RMP/ROD, p. 20. See also Map 30 in 1997 RMP/ROD (wherein Off Highway Vehicle Restrictions are identified).

* The related SOP states that "Recreation resources will continue to be evaluated on an individual basis as part of activity and project-level planning. Such evaluations will consider the sensitivity of, and the impacts on, recreation resources in the affected area. Stipulations will be attached as appropriate to assure the compatibility of projects with recreation management objectives." See 1997 RMP/ROD, p. 33.

* The related SOP states that "Vehicle use in Wilderness Study Areas (WSAs) is currently managed as limited to existing (1980 inventory) roads, trails and ways. ..." See 1997 RMP/ROD, p. 33.

Off Highway Vehicle Restriction #2 is within a portion of the Reveille Allotment. Part of the withdrawal area for the Caliente RR Route will cross the Off Highway Vehicle Restriction #2 area within the Reveille Allotment. See Map 30 in 1997 RMP/ROD (wherein the Off Highway Vehicle Restrictions are identified).

* The related determination is to "Designate the Tonopah Extensive Recreation Management Area to include the 6,026,570 acres not within a Special Recreation Management Areas. Develop minimal facilities necessary to meet the needs of dispersed recreational uses and to protect the environment. Approximately 60 acres will be used in construction of facilities ...". See 1997 RMP/ROD, p. 21.

No Special Recreation Management Areas exist within the withdrawal area for the Caliente RR Route within the Reveille Allotment. However, some semiprimitive motorized Recreation Opportunity Spectrum area exists within a portion of the withdrawal area for the Caliente RR Route as within the Reveille Allotment. The remainder of the impact area of the proposed Caliente Option is open to year-round off-vehicle recreational opportunities. See Map 28 in 1997 RMP/ROD (wherein the Recreation Opportunity Spectrum areas are identified).

The 1997 RMP/ROD objective is "To provide a full range of recreational settings, from rural to wilderness, for the pursuit of a wide variety of recreational opportunities." See 1997 RMP/ROD, p. 21.

* The related determination is to "Manage 465,725 acres of semiprimitive motorized values. Manage 90,370 acres of primitive and 339,120 acres of semiprimitive nonmotorized recreation opportunity settings. Primitive and semiprimitive nonmotorized lands will be managed for Class II Visual Resource Management." See 1997 RMP/ROD, p. 21. See also Map 28 in 1997 RMP/ROD (wherein Recreation Opportunity Spectrums are identified). See also 1997 RMP/ROD, pp. A-25, A-26.

Some semiprimitive motorized Recreation Opportunity Spectrum area exists within a portion of the withdrawal area for the Caliente RR Route within the Reveille Allotment. See Map 28 in 1997 RMP/ROD (wherein the Recreation Opportunity Spectrum areas are identified).

Public Interest Issue 11: Wilderness.

The 1997 RMP/ROD objective is "To manage all lands released from wilderness consideration by Congress as a part of the full spectrum of multiple uses within the Tonopah Planning Area." See 1997 RMP/ROD, p. 22. See also Map 26 in 1997 RMP/ROD (wherein Wilderness Study Areas are identified).

* The related determination is "If released by Congress from further wilderness consideration, Wilderness Study Areas will be: 1. Managed as proposed in other resource programs (see Map 26 in 1997 RMP/ROD); 2. Managed for 90,370 acres of primitive values, 245,780 acres of semiprimitive nonmotorized values, and 268,385 acres of semiprimitive motorized values; 3. Managed as Visual Resource Management Class II areas to comply with BLM policy. No

competitive events will be authorized." See 1997 RMP/ROD, p. 20. See also 1997 RMP/ROD, p. 27 (relating to VRM as related to WSA).

* The related SOP states that "BLM policy requires that all ... (WSAs) be managed in accordance with the provisions of Section 603(c) of the Federal Land Policy and Management Act and the BLM Interim Management Policy for Lands Under Wilderness Review (IMP) so as not to impair their suitability for preservation of wilderness. ... The IMP contains specific management direction for activities in WSAs which may occur or be authorized." See 1997 RMP/ROD, p. 34.

Part of the South Reveille Wilderness Study Area exists within a portion of the withdrawal area for the Caliente RR Route within the Reveille Allotment. See Map 26 in 1997 RMP/ROD (wherein Wilderness Study Areas are identified). Note that part of the eastern edge of the Kawich Wilderness Study Area is immediately adjacent to a portion of the withdrawal area of the Caliente RR Route within the Reveille Allotment. See Map 26 in 1997 RMP/ROD (wherein Wilderness Study Areas are identified).

Public Interest Issue 12: Utility Corridors.

The 1997 RMP/ROD objective is "To facilitate the placement of major transportation and utility systems passing through the Tonopah Planning Area and to minimize conflicts with other resource values." See 1997 RMP/ROD, p. 22. See also Map 20 in 1997 RMP/ROD (wherein Utility Corridors are identified).

* The related determination is "Designate transportation and utility corridors on 668 lineal miles (this includes those previously designated in the Esmeralda-Southern Nye Resource Management Plan ...)". See 1997 RMP/ROD, p. 22.

A minor part of a utility corridor (along Highway 6 within the Warm Springs area) exists within a portion of the withdrawal area for the Caliente RR Route within the Reveille Allotment; the remainder of the withdrawal area for the Caliente RR Route is not within a utility corridor within the Reveille Allotment. See Map 20 in 1997 RMP/ROD (wherein the Utility Corridor is identified).

Public Interest Issue 13: Fluid Minerals.

The 1997 RMP/ROD objective is "To provide opportunity for exploration and development of fluid minerals such as oil, gas, and geothermal resources, using appropriate stipulations to allow for the preservation and enhancement of fragile and unique resources." See 1997 RMP/ROD, p. 22. See also Map 32 in 1997 RMP/ROD (wherein the Fluid Mineral Potential areas are identified).

* The related determination is "A total of 5,360,477 acres ... will be open to fluid mineral leasing subject to standard lease terms and conditions." See 1997 RMP/ROD, p. 22.

* The related SOP states that "BLM actively encourages and facilitates the private development of public mineral resources in a manner that satisfies national and local needs, and provides for economically and environmentally sound exploration, extraction, and reclamation practices." See 1997 RMP/ROD, p. 35.

* The related SOP states that "Land-use plans and multiple-use management decisions of the BLM will recognize that mineral exploration and development can occur concurrently or sequentially with relation to other resource uses." See 1997 RMP/ROD, p. 35.

Moderate oil and gas area, moderate geothermal area, and low oil and gas area exist within the withdrawal area for the Caliente RR Route within the Reveille Allotment. See Map 32 in 1997 RMP/ROD (wherein the Fluid Mineral Potential areas are identified).

Public Interest Issue 14: Locatable Minerals.

The 1997 RMP/ROD objective is "To provide opportunity for exploration and development of locatable minerals such as gold, silver, copper, lead, zinc, molybdenum, etc., consistent with the preservation of fragile and unique resources in areas identified as open to the operation of the mining laws." See 1997 RMP/ROD, p. 23. See also Map 36 in 1997 RMP/ROD (wherein the Locatable Mineral Potential areas are identified). See also Map 24 in 1997 RMP/ROD (wherein the mining withdrawal areas are identified).

* The related determination is "A total of 6,028,948 acres ... will be open to the operation of the mining laws." See 1997 RMP/ROD, p. 23.

* The related SOP states that "BLM provides for mineral entry, exploration, location, operations pursuant to the mining laws in a manner that 1) will not unduly hinder the mineral activates, and 2) assures that these activates are conducted in a manner which will prevent undue or unnecessary degradation of the public land." See 1997 RMP/ROD, p. 35.

Moderate and Low locatable mineral potential areas exist within the withdrawal area for the Caliente RR Route within the Reveille Allotment. See Map 36 in 1997 RMP/ROD (wherein the Locatable Mineral Potential areas are identified).

Public Interest Issue 15: Fire Management.

The 1997 RMP/ROD objective is "To protect natural resources from unacceptable damage by fire in a cost-effective manner with a high regard for private property and safety. Promote resource management through prescribed fire to maintain the natural component of the ecosystem." See 1997 RMP/ROD, p. 25. See also Map 38 in 1997 RMP/ROD (wherein Fire Management Zones are identified).

* The related determination is "All wildfires in Fire Management Zone 1 will receive aggressive initial attack, to contain all fires in intensity levels 1 through 6, 90 percent of the time to 300 acres or less." See 1997 RMP/ROD, p. 25.

* The related determination is "If an approved natural prescribed fire plan is written, some wildfires in Fire Management Zone 2 may be allowed to burn to promote a more natural fire regime ..." See 1997 RMP/ROD, p. 25.

* The related SOP states that "The fire management program is guided by the approved Battle Mountain District Fire Management Activity Plan and this RMP." See 1997 RMP/ROD, p. 37.

* The related SOP states that "Every wildfire within the Tonopah Planning Area will have an appropriate action taken. ..." See 1997 RMP/ROD, p. 37.

Fire Management Zone 1 and 2 areas exist within the withdrawal area for the Caliente RR Route within the Reveille Allotment. See Map 38 in 1997 RMP/ROD (wherein Fire Management Zones are identified).

Public Interest Issue 16: Monitoring.

The 1997 RMP/ROD provides that "The Tonopah RMP is intended to be a dynamic document which must be routinely monitored and maintained ... to remain viable. The intent of monitoring is to document the effect on the environment from implementing the RMP to ensure that management actions are meeting their intended purpose." See 1997 RMP/ROD, p. 38.

C. Legal Defects relating to Issues Affecting all RR Route Alternatives.

1. Lack of public participation by "other interested persons" within the Reveille Allotment and Stone Cabin Allotment. The "Record of Decision on Mode of Transportation and Nevada Rail Corridor for the Disposal of Spent Nuclear Fuel ... at Yucca Mountain, Nye County, Nevada" dated April 2, 2004, is flawed as related to the "Rail Corridor Decision". See 69 Fed.Reg. 18557, 18564-18565 (4/8/04). The "Rail Corridor Decision" states that the:

> "Department (of Energy) has decided to select the preferred rail corridor alternative, the Caliente corridor, in which to evaluate alignments for a rail line."

See 69 Fed.Reg. 18557, 18564 (4/8/04).

However, at no time during the EIS process did DOE notify the owners of the public land interests and other private interests within the Reveille Allotment or Stone Cabin Allotment to which the Caliente corridor intended to cross. In fact, such owners were not aware of the EIS process until immediately before the "Rail Corridor Decision" was issued. On March 11, 2004, an Owner of the Twin Springs Ranch (Fallini, permittee within the Reveille Allotment) provided comment and request for information upon learning of the EIS process, but DOE provided no response to such comment before issuance of their "Rail Corridor Decision" and DOE did not re-initiate the NEPA process to include such owners in violation of the NEPA and CEQ regulations. See 40 C.F.R. § 1501.7(a)(1) (wherein an agency must "(i)nvite the participation of affected Federal, State, and local agencies, any affected Indian tribe, the proponent of the action, and

other interested persons"). See also Northwest Coalition for Alternatives to Pesticides v. Lyng, 844 F.2d 588, 594-595 (9th Cir. 1988); Wyoming v. U.S. Dept. of Agri, 277 F.Supp.2d 1197, 1219-1221 (D.Wyo. 2003).

Unquestionably, the owners of the interests within the Reveille Allotment and Stone Cabin Allotment are and were within the category of "other interested persons".

Accordingly, the "Rail Corridor Decision" (see 69 Fed.Reg. 18557, 18564-18565) and the "Notice of Intent" (see 69 Fed.Reg. 18565-18569) must be vacated, pending the re-initiation of the NEPA process to include at least the owners of the interests within the Reveille Allotment and Stone Cabin Allotment for which the Caliente corridor intended to cross.

2. No FLPMA/NEPA documentation prepared by BLM. The "Record of Decision on Mode of Transportation and Nevada Rail Corridor for the Disposal of Spent Nuclear Fuel ... at Yucca Mountain, Nye County, Nevada" dated April 2, 2004, is flawed as related to the "Rail Corridor Decision". See 69 Fed.Reg. 18557, 18564-18565 (4/8/04). The "Rail Corridor Decision" states that the:

> "Department (of Energy) has decided to select the preferred rail corridor alternative, the Caliente corridor, in which to evaluate alignments for a rail line."

See 69 Fed.Reg. 18557, 18564 (4/8/04).

However, it was not the authority of the Department of Energy to select as the preferred rail corridor the Caliente corridor as it exists upon public land, especially within the Tonopah Planning Unit. The Standard Operating Procedure for "Environmental Review and Management" within the 1997 RMP/ROD states that:

> "In compliance with NEPA and CEQ regulations, **BLM will prepare site-specific environmental reviews before actions proposed in this RMP/EIS are implemented**, or prior to approval of any project authorized on public lands. The environmental reviews provide site-specific assessments of the impacts from implementing these actions. As appropriate, these reviews are documented in ... Environmental Impact Statements and Records of Decision."

See 1997 RMP/ROD, p. 26. Emphasis supplied.

Here, BLM did not prepare the EIS upon which the disputed "Rail Corridor Decision" was made, but instead DOE prepared the underlying EIS. Any site-specific environmental review of any proposed rail right-of-way upon public land within the Tonopah Planning Area should have been prepared, selected, and decided by BLM, not DOE. See also 43 U.S.C. § 1761(a)(6) (wherein the authority to grant a rail right-of-way upon public land is vested n the Secretary of the U.S. Department of Interior aka BLM).

In addition, the "Notice of Intent to Prepare an Environmental Impact Statement for the Alignment, Construction, and Operation of a Rail Line to a Geological Repository at Yucca Mountain, Nye County, NV" dated April 2, 2004, is flawed for the same reason, since the "Notice of Intent" is contemplating the preparation of another EIS document by DOE, not by

BLM. See 69 Fed.Reg. 18565-18569 (4/8/04). While DOE "invites" BLM in their "Notice of Intent" to "cooperat(e)" in the preparation of the EIS (69 Fed.Reg. 18568), such invitation does not satisfy the requirements of the 1997 RMP/ROD and/or abrogates BLM's authority to issue rail rights-of-way upon public land within (at least) the Tonopah Planning Area under the Federal Land Policy and Management Act. See also letter from Brian Sandoval, Nevada Attorney General, to James L. Connaughton, Chairman of the U.S. Council of Environmental Quality, dated January 26, 2005 (wherein the Nevada Attorney General complains that DOE appears to be usurping legal and regulatory requirements "in assigning to itself lead agency status for the evaluation and construction of what promises to be the largest new rail project in North America in many decades").

Accordingly, the "Rail Corridor Decision" (see 69 Fed.Reg. 18557, 18564-18565) and the "Notice of Intent" (see 69 Fed.Reg. 18565-18569) must be vacated, pending the preparation of requisite NEPA documentation by BLM itself.

SECTION II. IMPACTS OF ALL RAILROAD ROUTES (PROPOSED CALIENTE OPTION) WITHIN THE REVEILLE ALLOTMENT.

A. Impacts to Private Interest Issues.

Private Interest Issue 1 - Private Land.

The private lands within the Reveille Allotment will not be directly impacted by construction and operation of the RR using the Caliente Option in the sense that the route does not propose to cross onto private lands.

However, the private lands within the Reveille Allotment will be indirectly and adversely impacted by construction activities, in that access by the private inholders to the private lands, private-land maintenance and private-land security will be curtailed by construction activities and post-construction operation activities. In addition, a lowering of private property real estate values is expected due to the noise and visual intrusion of the construction activity disturbing the solitude of the private lands settings, and post-construction operation activities.

Increased vandalism is also expected as an indirect result of the presence of hundreds of construction workers in this otherwise quiet setting. Damage to vandalized private property, including lands, buildings, and structures occurring during the construction phase would not be "cured" by cessation of construction activities, but would be an ongoing loss to the private inholders, once such losses occur.

Private Interest Issues 2-7. Grazing Preference, Base Property, Nevada Grazing Rights, Range Improvements, Federal Grants, and Water Rights.

Grazing Rights.

The grazing rights of Fallini will be adversely impacted by construction and operation of the railroad using the proposed Caliente Option. The route is approximately 45 miles long through the Reveille Allotment.

The route will disrupt and/or destroy grazing rights within the Reveille Allotment in four principle ways, namely (1) removal of useable and already-serviced water base property, (2) disruption of the livestock distribution and use of the allotment's waters and rangeland, (3) death of livestock due to construction and rail operation activities, and (4) disruption of Fallini's ability to gather and move livestock.

(1) Removal of useable and already-serviced water base property will occur in the disruption and severing of the water systems within the allotment, which are identified as follows:

a. Black Springs and Pipeline. This system services livestock use and base property for approximately 76,800 acres within the Reveille Allotment. Construction and operation of the proposed rail route will sever this pipeline system just below the spring development, disrupting livestock use during construction, and potentially permanently, on nearly all of the 76,800 acres.

In addition, even if railroad construction can be accomplished in such a way as to not sever and disrupt the pipeline service, the construction activity and vibrations caused by passage of the trains will destroy the system. This is a tunnel-type spring development, and the proximity of the rail route will result in vibrations that will collapse the tunnel development, destroying the entire system.

b. Reveille Mill Spring and Pipeline. This system services livestock use and base property for approximately 81,900 acres within the Reveille Allotment. Construction and operation of the proposed rail route will sever this pipeline system approximately 2 miles below Reveille Mill, severing 10 miles of the pipeline system, disrupting livestock use during construction, and potentially permanently, on 51,200 acres.

c. Fivemile Spring and Pipeline. This system services livestock use and base property for approximately 56,320 acres. The proposed rail route will sever or curtail service of the end trough, disrupting livestock use during construction, and potentially permanently, on approximately 32,153 acres.

d. George's Water Pipeline extension. This system services livestock use and base property for approximately 20,500 acres. The proposed rail route will sever or curtail service of the end trough, disrupting livestock use during construction, and potentially permanently, on approximately 20,500 acres.

e. Volcano pit reservoir. This reservoir catches annual precipitation and stores it for use by livestock and wildlife. The reservoir lies directly in the path of the proposed route, between the "east alternative route" and the "west alternative route", just north of where the "central alternative route" joins on the north end the "west alternative route". The reservoir services livestock use and base property for approximately 32,200 acres. The proposed rail route will sever or curtail service of the reservoir, disrupting livestock use during construction, and potentially permanently, on the entire 32,200 acres.

f. Witch Well and Pipeline. This well lies directly in the path of the proposed route, between the "east alternative route" and "central alternative route", just south of where the "central alternative route joins on the north end the "west alternative route". The well services livestock use and base property for approximately 32,200 acres. The proposed rail route will sever or curtail service of the well and destroy the effectiveness of the eight miles of pipeline connecting George's Water to Witch Well, disrupting livestock use during construction, and potentially permanently, on the entire 32,200 acres.

g. Cedar Pipeline and Cedar Pipeline Extension. This system begins in the Nellis Air Force Base reservation, approximately 8 miles west of the proposed Caliente Option "west alternative, and includes 15 miles of pipeline/trough/reservoir and corral system components. The system services livestock use and base property for approximately 44,200 acres. The proposed rail route will not sever the line, but will curtail or disrupt livestock use during construction, and potentially permanently, on approximately 7.5 miles of the pipeline, affecting approximately 22,100 acres.

h. Ned's Cache pipeline & trough. This system begins at Ned's Cache well and Ned's Cache Spring, approximately three miles west of the proposed Caliente Option, and terminates at a trough and reservoir that lie directly in the path of the proposed route. The system services livestock use and base property for approximately 35,000 acres. The proposed rail route will sever or curtail service of the end trough, disrupting livestock use during construction, and potentially permanently, on approximately the entire 35,000 acres.

i. Deep Well. This well is located approximately 3 miles north of the proposed Caliente Option. This base property water development services livestock use and base property for approximately 32,200 acres. The proposed rail route will not destroy the well, but will disrupt livestock use during construction, and potentially permanently, on approximately 4,500 acres of the service area of the well.

j. Buck's Water. This system begins at a spring development approximately 2.5 miles north of the proposed Caliente Option, and is piped northwest approximately 1.5 miles to a trough location approximately 3 miles north of the proposed Caliente Option. The system services livestock use and base property for approximately 16,600 acres. The proposed rail route will not destroy or sever the system, but will disrupt livestock use during construction, and potentially permanently, on approximately 2,900 acres.

k. Reveille Peak Reservoir. This reservoir is a water-haul range improvement that lies approximately 2.25 miles north of the proposed Caliente Option, and services livestock use for approximately 32,000 acres. The proposed rail route will not destroy the range improvement, but will disrupt livestock use during construction, and potentially permanently, on approximately 5,000 acres. If water supply routes from Cedar Pipeline Ranch are cut off during construction or during operation, the rail route placement will sever use of the entire 32,000 acres.

l. Frak tank and Queen City Reservoir. This tank and reservoir are a water-haul range improvement that lie approximately 0.75 mile south of the proposed Caliente Option, and services livestock use for approximately 32,000 acres. The proposed rail route will not destroy or sever the system, but will disrupt livestock use during construction, and potentially permanently, on approximately 16,000 acres.

The above discussion refers to the service area and/or base property of each of the structures individually. While a large portion of the base and livestock forage availability discussed above overlaps other service areas and/or base property coverage, a large portion does not do so. In total, the Caliente Option will potentially disrupt/destroy the base property and serviceability of an area approximately 35 miles long and four miles wide between Warm Springs Summit in the northwest portion of the Reveille Allotment, and the Cedar Pipeline Ranch at the south-central portion of the allotment. This equates to an area of at least 90,000 acres, with a livestock base property preference of at least 3,750 AUMs.

(2) Disruption of the livestock distribution and use of the allotment's waters and rangeland will occur within the Reveille Allotment as a result of construction and operation of the rail line.

In addition to the severing and disruption of the water delivery systems and serviceability, and even assuming that construction is completed in such a manner as to not sever water sources, construction and operations activities will nevertheless result in disruption of the livestock distribution and use of the allotment's waters and rangeland.

The livestock of the Reveille Allotment have been born and raised on the Reveille Allotment. They have knowledge of the water sources and forage of the Reveille Allotment as a result of having learned from their mothers, and their mothers from their mothers. In addition, the livestock are not accustomed to large numbers of humans near the water sources, corrals, and travel routes within the allotment, and are skittish to close human presence. The construction activities alone will result in disruption of use of waters and roads and nearby forage sources for 50+ linear miles within the Reveille Allotment, with a reasonable expectation that cattle will remain at least one mile away from construction activity and roads used to access construction, in order to avoid harassment. To the extent that other roads and access routes are constructed or used by construction activities, the area of impact would, obviously, be larger. This will potentially result in roughly 100 square miles (64,000 acres) of curtailed livestock use during the construction phase, with an expected reduction of useable livestock forage of approximately 2700 AUMs per year during the construction period.

With the increased human activity as a result of construction activities, livestock will experience increased stress, with a reasonable expectation for negative impacts on livestock performance, weight gains, and calf weaning weights (which impact sales weights, and therefore ranch economics).

Even if no curtailment of water availability occurs, obstruction of livestock movement will occur as construction progresses and track is laid. This will be true because the track will act in a similar manner as a "cattleguard" on a fence, so that most livestock that approach the track will not cross the rails and ties. This will halt the free-roaming nature of the range cattle on the Allotment, and will curtail access to multiple water sources. In other words, the cattle are accustomed to visiting a water source, drinking, and foraging as they move to other water sources. This natural "rotation-within-the-rotation" will be curtailed by lack of access to the existing water systems, which will be across the tracks (or severed).

(3) Death of livestock due to construction and rail operation activities will increase in the Reveille Allotment.

Notwithstanding the fact that (most) livestock will not cross the rail tracks, many will likely be attracted to the locale of the rail line after construction, for at least two reasons. The first is that the rail bed will create a damming effect to overland water flow with snowmelt and rainstorm runoff events. This will occur not just at existing draws and valleys, but also on upland situations that currently lack standing water. Thus the livestock will be attracted at least periodically to these water sources. The second reason is that some livestock will likely seek to rest on the rail bed because of its elevated position in the landscape and because it will likely provide somewhat drier ground during wet periods of the year, and, due to the thermal properties of the ties and track, will likely be a bare area when other parts of the rangeland may be covered with snow. These two attractant features will increase the likelihood that livestock will suffer increased mortality on the Allotment as a result of being struck by passing trains.

(4) Disruption of Fallini's ability to gather and move livestock will occur if the proposed Caliente Option is constructed.

As noted elsewhere herein, the rail line will essentially create a 45-mile long barrier to livestock movement.

At present, livestock are rotated between and among waters by turning waters on and off, and as necessary by moving the cattle by use of a helicopter. In addition, gathering of livestock at round-up time or as necessary through the year for various reasons is accomplished with the helicopter.

In addition to the physical barrier that the rail route presents to the foraging behavior of the livestock, the route will also render the job of moving and removing livestock extremely difficult, if not impossible even with the use of the helicopter.

Further, if low-level flight restrictions will accompany the construction and/or operation of the rail line, this will increase even more the burden on Fallini, because rounding up and moving cattle with helicopter is an integral part of Fallini's livestock operation. If this opportunity is curtailed, it will make the timely operation of Fallini's livestock operation in the southern Railroad Valley and in the whole of the Reveille Valley impossible to accomplish.

Range Improvements and Federal Grants.

a. Black Springs Spring Development and Pipeline System. Construction of the proposed Caliente rail route will result in the destruction of the development at Black Springs, either by the physical activities of construction or as a result of vibrations of the construction equipment and/or passage of the trains. Construction and operation will also sever and make unusable approximately 9 miles of pipeline system, 3 troughs and 4 reservoirs.

b. Reveille Mill pipelines, east of the proposed rail route. Construction and operation of the proposed Caliente rail route will sever or make unusable this pipeline system approximately 2 miles below Reveille Mill, severing or making unusable 10 miles of the pipeline system, and 3 trough locations.

c. Fivemile. Construction and operation of the proposed Caliente rail route will sever or curtail service of the end trough, corrals, and livestock loading facilities.

d. George's Water Pipeline extension. Construction and operation of the proposed Caliente rail route will sever or curtail service of the end trough, corrals, and livestock loading facilities.

e. Volcano pit. Construction and operation of the proposed Caliente rail route will sever or curtail service of the reservoir.

f. Witch Well and Pipeline. Construction and operation of the proposed Caliente rail route will sever or curtail service of the well, storage tank, trough, corrals, and livestock loading facilities. It will also render inoperable the eight miles of pipeline connecting Witch Well to George's Water Pipeline.

g. Cedar Pipeline and Cedar Pipeline Extension. Construction of the proposed Caliente rail route will not sever this system, but will curtail use of 3 troughs, two reservoirs, two corrals, and two livestock loading facilites (including those at 4-Troughs). This impact will continue with operation of the rail route.

h. Ned's Cache pipeline & trough. Construction of the proposed Caliente rail route will sever or curtail service of the end trough and reservoir, and will curtail and restrict use of another trough and two spring developments via isolation. This impact will continue with operation of the rail route.

i. Reveille Peak Reservoir. Construction of the proposed Caliente rail route will not destroy this water-haul location, but will isolate it from the Cedar Pipeline. To the extent it is needed, filling it will require hauling water from Pyramid Well, a distance of approximately twice as far as Cedar Pipeline. This impact will continue with operation of the rail route.

Water rights.

See discussion of grazing rights.

In total, construction and operation of the proposed Caliente rail route will potentially destroy the usability of water rights and base property affecting at least 90,000 acres of rangeland within the Reveille Allotment, with a loss of at least 3,750 AUMs.

Private Interest Issues 8 - 13. Wildlife, Recreation, Aesthetics, Cultural Resources, Wild horses, Wilderness/WSAs.

The impacts of the proposed Caliente Option to the "public interests issues" within the Reveille Allotment are discussed further below within this letter. The private interests of Fallini in the wildlife, recreation, aesthetics, cultural resource, wild horses, and wilderness study area/wilderness values are the same as those to the general public (see IMPACTS TO PUBLIC INTEREST ISSUES).

However, the degree to which the Fallini family are involved in the public interests is more intensive than that of the general public. Fallini has constructed spring developments, pipelines, water facilities (including troughs and reservoirs) that have increased the distribution and available water sources for wildlife, including mule deer, pronghorn, sage grouse, geese, ducks, raptors, and a wide variety of game and non-game animals. See, for example, Exhibit 3, Photos 38 and 39, which shows mallard ducks using the Fallini-constructed pond/reservoir at "Upper Black Spring Trough and Reservoir". See also, for example, Exhibit 3, Photo 19, which shows the Fallini-constructed reservoir at "George's Water Pipeline Extension". See also, for example, Exhibit 3, Photos 13 and 14, which show raptor habitat (trees) which are the product of Falini-constructed water development at the end trough on the Fivemile Spring and Pipeline system. BLM's most recent Allotment Evaluation estimated that 121 species of wildlife may use the Reveille Allotment, including 43 species of mammals, 13 species of reptiles, 3 species of fish and amphibians, 16 species of waterfowl, 15 species of shorebirds and wading birds, 13 species of raptors, and 18 other species of birds within the Reveille Allotment. See Exhibit 5, which is BLM's Appendix D to the 1999 Allotment Evaluation. To the extent these wildlife species use the water developments created by Fallini, the wildlife interests of Fallini in the Allotment are harmed.

The Fallini family also hunts, hikes, rock climbs, picnics, rock hounds, enjoys the historical and cultural resources, and otherwise recreates within the wilderness study areas and other wild portions of the Reveille Allotment, including the Reveille Wilderness Study Area and the Kawitch Wilderness Study Area. In fact, the Fallini family is a "locally important ranching operation" whose ancestors were part of the settling of the Reveille Valley, which the proposed Caliente Option traverses.

In 1986, the Fallini family was instrumental in establishing the "thriving ecological balance" of wild horses within the Reveille Allotment, and is intimately interested in the viability and free-roaming nature of the wild horses within the Reveille Wild Horse Herd Management Area. The Fallini family opposed BLM's wild horse management in the 1980's when BLM sought to overstock the number of wild horses on the Reveille Allotment, and opposed BLM's conclusions of studies in the late 1990's, which erroneously concluded a reduction of wild horses was needed, when no such reduction was warranted.

Private Interest Issue 14. Monitoring Investment.

Rangeland monitoring by Fallini has been continuous and ongoing for more than twenty years, and has included, but is not necessarily limited to, monitoring site selection in conjunction with the Bureau of Land Management; wild horse censusing; livestock, wild horse, and wildlife utilization monitoring; ecological condition and forage production monitoring; and trend-of-condition monitoring. The family has invested literally hundreds of thousands of dollars in such investment.

The construction and operation of the proposed Caliente rail route will physically destroy or will impair the viability and use of thirteen of thirty-eight monitoring locations employed by the permittee to adjust livestock use, distribution, livestock grazing capacity within, and management objectives for the Reveille Allotment. The loss of this historic data and its

application to present and future management is not resolvable. See also Public Interest Issue 16 (Monitoring). Notwithstanding the fact that Fallini has private investment in the monitoring on the allotment, such investment of public funds by the BLM also extends to the interests of Fallini.

B. Impacts to Public Interest Issues.

Public Interest Issue 1: Watersheds

The 1997 RMP/ROD objective is "To maintain or improve watershed condition in the Tonopah Planning Area". See 1997 RMP/ROD, p. 5. See also Map 3 in 1997 RMP/ROD.

* The related SOP is that "Best Management Practices and appropriate mitigation will be identified during project-level environmental review and applied during project implementation for any ground-disturbing activity that may reduce soil productivity or cause surface erosion." See 1997 RMP/ROD, p. 27.

Reveille Allotment includes the Lower Railroad watershed, Lower Hot Creek watershed, and Kawich watershed within the withdrawal area for the Caliente RR Route.

Impacts:

The LUP Watershed objective will be negatively impacted by construction of the proposed Caliente Option. It is anticipated that 1,100 acres will be laid bare by construction activities in roads and the route itself, based upon a 200-foot right of way along the 45-mile long route through the Allotment. Additional acreage will be negatively impacted down-slope from these areas as a result of soil erosion from the bared-off areas.

Additional significant road traffic during construction activities will reduce the stability of existing roads and will likely result in increased wind and water erosion, thereby further negatively impacting the watershed objective.

Rail bed and access-road construction, and increased use and maintenance (blading) along the existing roads within the Allotment will encourage the invasion of weedy species, including noxious weeds. Weedy species are not as capable of watershed protection as are native species. Therefore, the increase in weedy species will result in additional lowering of watershed capabilities.

Once constructed, the rail route will continue to negatively impact the watershed objective by hindering (i.e. "damming") the natural overland runoff along the rail route, thereby reducing down-watershed infiltration of natural runoff. This does not just apply to the numerous washes, draws, and rivulets along the route, but to the concave surfaces of the rangeland that will have natural overland flow impaired, especially during snowmelt and rain events. The rail bed will thereby essentially create a situation analogous to a "rainshadow" created by mountains, although obviously on a smaller scale. Unlike the positive impacts to vegetation on the windward side of a mountain no such positive impacts are expected on the up-slope area of the rail bed, because the precipitation will merely be dammed up against the rail bed, rather than

spread out and allowed to infiltrate over the same area were it permitted to continue down slope unimpeded.

In addition, it is likely that the "damming" effect will create innumerable localized water catchment areas immediately adjacent to the up-slope side of the rail bed. These will in turn likely concentrate livestock, wild horse, and wildlife use along the rail bed. To the extent that this concentration of herbivores will create areas of reduced vegetative cover, it may lead to additional negative impacts to the watershed objective, by reducing the protective cover and infiltration properties that the vegetative cover provides the soil.

Public Interest Issue 2: Vegetation.

The 1997 RMP/ROD objective is "To provide for vegetative and ecological diversity." See 1997 RMP/ROD, p. 5.

* The related determination is to "Manage the vegetation resource for desired plant communities" and "Management of the vegetative resource will provide for the physiological needs ... of the key forage plant species." See 1997 RMP/ROD, p. 5. See also Map 5 in 1997 RMP/ROD.

Impacts:

The LUP Vegetation objective will be negatively impacted by construction of the proposed Caliente Option. It is anticipated that 1,100 acres will be laid bare by construction activities in roads and the route itself (based upon a 200-foot right of way along the 45-mile long route through the Allotment), thereby directly destroying the vegetative diversity on this acreage. Additional acreage will be negatively impacted down-slope from the areas as a result of soil erosion from the bared-off areas.

Additional significant road traffic during construction activities will reduce the stability of existing roads and will likely result in increased wind and water erosion, thereby further negatively impacting the vegetative objective along these existing roads. This does not just apply to the numerous washes, draws, and rivulets along the route, but to the concave surfaces of the rangeland which will be hindered from natural overland flow, especially during snowmelt and rain events. The rail bed will thereby essentially create a situation analogous to a "rainshadow" created by mountains, although obviously on a smaller scale. Unlike the positive impacts to vegetation on the windward side of a mountain, no such positive impacts are expected on the up-slope area of the rail bed, because the precipitation will merely be dammed up against the rail bed, rather than spread out and allowed to infiltrate over the same area as it would if permitted to continue down slope.

Rail bed and physical-access road construction, and additional use along the existing roads within the Allotment will encourage the invasion of weedy species, including noxious weeds. Weedy species are not considered to add to the vegetative diversity of the vegetation base, but rather detract from it as they overtake nearby areas of desirable vegetation. Therefore, the

increase in weedy species will result in additional lowering of vegetation stability, vegetative diversity, and desired plant communities.

Once constructed, the rail route will continue to negatively impact the vegetation objective by hindering (i.e., "damming") the natural overland runoff along the rail route, thereby reducing down-watershed infiltration of natural runoff, and in turn negatively impacting plant growth, vigor, and reproduction of vegetation down-slope of the rail line.

In addition, it is likely that the "damming" effect will create innumerable localized water catchment areas immediately adjacent to the up-slope side of the rail bed. These will in turn likely concentrate livestock, wild horse, and wildlife use along the rail bed. To the extent that this concentration of herbivores creates areas of excessive forage utilization, the long-term, and possibly short-term, result will be reduced vegetative cover.

Public Interest Issue 3: Visual Resource Management.

The 1997 RMP/ROD objective is "To designate visual resource management classes and maintain existing scenic qualities". See 1997 RMP/ROD, p. 6.

* The related determination is to "Manage the Tonopah Planning Area for the following Visual Resource Management ... classes." See 1997 RMP/ROD, p. 6. See also Map 7 in 1997 RMP/ROD. Class IV VRM rating provides that "Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic elements (form, line, color, texture) inherent in the characteristic landscape." See 1997 RMP/ROD, p. 6. Class IV VRM rating adds that "Structures in the foreground distance zone (0-1/2 mile) often create a contrast that exceeds the VRM class ... Approval by the Area Manager is required on a case-by-case basis to determine whether the structure(s) meet the acceptable VRM class standards." See 1997 RMP/ROD, p. 6.

* The related SOP is that "Visual resources will continue to be evaluated, using the Contrast Rating process, as a part of activity and project planning. These evaluations will consider the significance of the proposed project and the visual sensitivity of the affected area. Stipulations will be developed and attached to project authorizations to maintain designated VRM classes. Stipulations may include requirements to locate activity sites behind topographic features to hide them from view, modify access routes, color buildings and equipment to blend in with their surrounds, develop projects in phases, etc. If VRM class objectives cannot be met, the impacts to visual resources will be detailed in the project-level environmental analysis and used by the Authorized Officer as a factor in the decision to authorize or deny a proposed action." See 1997 RMP/ROD, p. 27.

Reveille Allotment includes a Class IV VRM rating within the withdrawal area for the Caliente RR Route.

Impacts:

The LUP Visual Resource Management objective will be negatively impacted (in fact, violated) by construction and operation of the proposed Caliente Option.

The proposed Caliente Option will not repeat the form, line, color, or texture of the characteristic landscape. It will be a 200-foot wide, 45-mile long (through this Allotment) area of bare dirt initially, creating conflicts in form, line, color, and texture. Once constructed, and assuming revegetation will take place on portions of the route which are not under the rail bed, the route will still not repeat the form, line, color or texture of the characteristic landscape. It will be a linear ribbon of smooth, shining, silvery, steel running through a characteristic landscape that is anything but linear, smooth, shiny, or silvery.

This violation of the Class IV requirement will extend beyond the foreground distance zone (0 - 1/2 mile). The ribbon of steel will be seen from throughout the southern end of the Railroad Valley, and throughout the entire length of the Reveille Valley, including from within the most central portions of the Kawitch Wilderness Study Area and the South Reveille Wilderness Study Areas. These WSAs extend well down into the Reveille Valley as well as encompassing the tops of the respective mountain ranges. In fact, the "east alternative" of the proposed rail alignment route runs through the Reveille Wilderness Study Area.

So far as Fallini is aware, the authorized officer of the BLM has not conducted contrast ratings and issued a decision regarding such visual contrast authorizing or denying the rail corridor.

Public Interest Issue 4: Wildlife Habitat Management.

The 1997 RMP/ROD objective is "To maintain and enhance wildlife habitat and provide for species diversity". See 1997 RMP/ROD, p. 7.

BLM's most recent Allotment Evaluation (May, 1999) estimates that at least 121 species of wildlife may exist within the Reveille Allotment, including 43 species of mammals, 13 species of reptiles, 3 species of fish and amphibians, 16 species of waterfowl, 15 species of shorebirds and wading birds, 13 species of raptors, and 18 other species of birds within the Reveille Allotment. See Exhibit 5, which is BLM's Appendix D to the 1999 Allotment Evaluation.

* The related determination is to "Manage mule deer habitat for best possible condition within the site potential ..." See also Map 10 in 1997 RMP/ROD.

* The related SOP is that "... wildlife habitat will continue to be evaluated as part of project-level planning. Such evaluation will consider the significance of the proposed project and the sensitivity of ... wildlife habitat in the affected area. Stipulations will be attached as appropriate to assure compatibility of projects with management objectives for ... wildlife habitat. See 1997 RMP/ROD, p. 28.

Reveille Allotment includes mule deer range within the withdrawal area for the Caliente RR Route.

* The related determination is to "Manage pronghorn antelope habitat for best possible condition within the site potential. In conjunction with (NDOW) ... continue to support the reintroduction

and augmentation of antelope ... Develop additional water sources." See also Map 9 in 1997 RMP/ROD.

Reveille Allotment includes pronghorn antelope habitat within the entire withdrawal area for the Caliente RR Route.

Impacts:

The LUP Wildlife Habitat objective will be negatively impacted (in fact, it will be violated) by construction and operation of the proposed Caliente Option.

It is obvious that habitat for the 121 species of wildlife will not be enhanced by construction and operation of the proposed Caliente Option. The construction and operational activities will destroy water sources, negatively impact watersheds and vegetation, and decrease the vegetation diversity that these myriad species require.

Direct destruction of mule deer habitat and pronghorn habitat will occur with construction activities, as at least 1100 acres will be bared of vegetation. This is in direct conflict with the LUP determination to manage for the "best possible condition within the site potential" for both species.

Direct destruction of water sources used by mule deer and pronghorn will occur with construction activities. Additionally, direct destruction will occur to special habitat used by raptors and waterfowl. See "Impacts to Private Interest Issues", herein.

Increased mortality to mule deer and pronghorn will occur as a result of construction and operation of the Caliente rail route. This will occur for the reasons stated under "Impacts to Public Interests - watershed and vegetation", discussed above. Namely, the periodic damming the natural overland flows will result in concentrated use of these waters along the rail bed, leading to increased mortalities due to train collisions with the herds. Train and auto collisions with deer and pronghorn are a significant cause of mortality to several herds in Nevada. See **Exhibit 6**, which is a recent news article wherein Nevada Division of Wildlife attributes significant numbers of deer and pronghorn mortalities to such collisions as a result of just one winter storm and the deer and pronghorn using roads and railroads as travel corridors. Within the Reveille Allotment, the increase of rail line from "0 miles" at present to "45 miles" with completion of the Caliente Option, will likely dramatically increase deer and pronghorn mortality due to train collisions.

Public Interest Issue 5: Special Status Species.

The 1997 RMP/ROD objective is "To protect, restore, enhance, and expand habitat of species identified as threatened, endangered, or Nevada BLM Sensitive Species under the Endangered Species Act." See 1997 RMP/ROD, p. 9.

* The related determination is that "Habitat for all Federally listed threatened or endangered species or Nevada BLM Sensitive Species (plant and animal) will be managed to maintain or

increase current populations of these species ..." See 1997 RMP/ROD, p. 9. See also 1997 RMP/ROD, p. 28.

* The related SOP is that "It is BLM policy to carry out the management of Nevada BLM Sensitive Species consistent with multiple-use for conservation of these species and their habitats and ensure that actions authorized or funded do not contribute to the need to list any of these species as threatened or endangered. In order to prevent listing of Nevada BLM Sensitive Species, BLM may enter into Conservation Agreements or Species Management Plans with the U.S. Fish and Wildlife Service." See 1997 RMP/ROD, p. 28.

Impacts:

The LUP Sensitive Species objective will be negatively impacted (in fact, it will be violated) by construction and operation of the proposed Caliente Option.

There are no known threatened or endangered species within the Reveille Allotment. However, BLM lists a total of fifteen species of animals which are classified as sensitive species: eight species of mammal, one species of fish, three species of shorebirds and wading birds, two species of raptors, and one species of "other birds". Specifically, BLM's most recent allotment evaluation, dated May 14, 1999, lists the following sensitive species animals: spotted bat, small-footed myotis, long-eared myotis, fringed myotis, long-legged myotis, Yuma myotis, Pale Townsend's big-eared bat, pygmy rabbit, Hot Creek tui chub, white-faced ibis, black tern, least bittern, Northern goshawk, ferriginous hawk, western burrowing owl, and loggerhead shrike. The Hot Creek tui chub is specifically protected by State law (Nevada Revised Statute 501). See Exhibit 5.

In addition, BLM's 1999 Reveille Allotment Evaluation lists the following sensitive plant species: Cane Spring suncup, sanicis biscuitroot, Nye gilia, bashful beardtongue, Williams combleaf, Blaine pincusion, and Tonopah fishhook cactus. Williams combleaf is considered "critically endangered" by the State of Nevada (NRS 527.260-.300), and Blain pincusion and Tonopah fishhook cactus are protected by State law as "cactus, yucca or Christmas tree" under NRS 527.060-.120. See Exhibit 5.

At least one population of Tonopah fishhook cactus is known to exist in the direct path of the proposed Caliente Option, in Township 2 North, Range 50 East, Section 1. The habitat of this protected species will be destroyed by construction activities, and at least that population of the species will likely be extirpated by construction of the rail bed, since the rail route would literally be constructed right over the top of their habitat and the known population occurrence.

Public Interest Issue 6: Livestock Grazing Management.

The 1997 RMP/ROD objective is "To create healthy, productive rangelands through implementation of the recommendations of the ongoing rangeland monitoring and evaluation program." See 1997 RMP/ROD, p. 12.

* The related determination is that "The Tonopah MFP and Tonopah Grazing EIS ... provide the guidance necessary for the livestock grazing program." See 1997 RMP/ROD, p. 12. See also Map 16 in 1997 RMP/ROD (wherein allotments are identified).

* The related determination is to "Manage livestock at initial stocking levels of 134,355 animal unit months". See 1997 RMP/ROD, p. 12.

* The related SOP is that "The clearing of vegetation from project sites will be restricted to the minimum amount necessary to properly and safely complete the project." See 1997 RMP/ROD, p. 29.

* The related SOP is that "All disturbed areas will be rehabilitated, where such action is necessary and/or practical, to replace ground cover and prevent erosion. ... All fences will be designed to assure a minimum of impacts to wildlife, wild horses/burros, recreation, and visual resources." See 1997 RMP/ROD, p. 29.

* The related SOP is that "Alteration of sagebrush areas either through herbicides, prescribed burning, or by mechanical means will be in accordance with procedures specified in the Western States' Sage Grouse Guidelines and the Memorandum of Understanding between Nevada Division of Wildlife and the Nevada BLM. ..." See 1997 RMP/ROD, p. 29.

* The related SOP is that "Vegetative manipulations that will alter the potential natural plant composition will not be allowed in riparian areas. ..." See 1997 RMP/ROD, p. 29.

The initial stocking level for the Reveille Allotment is 25,730 AUMs for livestock (plus 1,980 AUMs for wild horses within Reveille HMA). See 1997 RMP/ROD, p. A-12. See also 43 C.F.R. §§ 4100.0-5, 4130.8-1(c) (wherein the definition of AUM or Animal Unit Month is defined and described).

Impacts:

The LUP Livestock Grazing Management objective will be negatively impacted (in fact, it will be violated) by construction and operation of the proposed Caliente Option.

Construction, operation, and decommissioning activites will all directly conflict with the objective to create healthy, productive rangelands. See "Impacts to Private Interest Issues". See also "Impacts to Public Interest Issues", relative to Watershed and Vegetation. In short, the rail line will not permit the harvest of 25,730 AUMs of livestock forage, or 1980 AUMs for wild horses within the Reveille HMA; will destroy and/or interrupt numerous livestock waters developed by Fallini to properly distribute livestock (and wildlife) throughout the Reveille Valley and portions of the Railroad Valley. The loss of these waters will result in the net loss of at least 141 square miles (90,000 acres) of available livestock forage. In addition, the dissection of the wild horse area will limit or destroy their ability to free roam throughout the HMA, thereby eliminating available wild horse forage within the Herd Management Area. In short, construction and operational activities that disrupt the water sources will result in a net loss of useable livestock forage of at least 3750 AUMs. Dissection of the HMA will likely result in a net loss of usable wild horse forage of undetermined (at this point) amount. See "Wild horses and burros", below.

Construction and operation of the rail line will also permanently place additional management burdens to move and remove livestock from both sides of the route in contrast to their present free-roaming abilities; and will have the same affect on wild horses. If restrictions are placed on low-level flights, this will increase even more the burden on Fallini, because rounding up and moving cattle with helicopter is an integral part of Fallini's livestock operation.

The Caliente Option traverses through areas of sagebrush-dominated rangeland within the Reveille Allotment, making mandatory the application of the Western States Sage Grouse Guidelines and the Memorandum of Understanding between Nevada Division of Wildlife and the Nevada BLM. So far as Fallini is informed, the Western States Sage Grouse Guidelines and the Memorandum of Understanding between Nevada Division of Wildlife and the Nevada BLM do not provide for the construction of 45 miles of rail line, some of which is through sagebrush-dominated rangeland. Therefore, construction and operation of the line are in direct conflict with the Guidelines and with the MOU.

Public Interest Issue 7: Wild Horses and Burros.

The 1997 RMP/ROD objective is "To manage wild horse and/or burro populations within Herd Management Areas at levels which will preserve and maintain a thriving natural ecological balance consistent with other multiple-use objectives." See 1997 RMP/ROD, p. 14.

* The related determination is to "Manage wild horses ... in 16 herd management areas". See 1997 RMP/ROD, p. 14. See also Map 18 in 1997 RMP/ROD (wherein Herd Management Areas are identified).

* The related SOP is that "It is the intent of the BLM to manage wild horses ... and their habitat within areas occupied in 1971. ... The suitability of some areas to support wild horses ... will be reassessed as appropriate in light of new information from monitoring and emergency gathers." See 1997 RMP/ROD, p. 30.

* The related determination is to "Manage wild horses ... at appropriate management level ... for each herd management area". See 1997 RMP/ROD, p. 14.

* The related determination is to "Assure sufficient water and forage exist for wild horses and/or burros in herd management areas.

The Reveille Herd Management Area is within a portion of the Reveille Allotment. Part of the withdrawal area for the Caliente RR Route will cross through the middle of and dissect the Reveille HMA. The wild horses appropriate management level for the Reveille HMA is 145-165 horses. See 1997 RMP/ROD, p. 15.

Impacts:

The LUP Wild horses and burros objective will be negatively impacted (in fact, it will be violated) by construction and operation of the proposed Caliente Option.

Construction and operation of the proposed Caliente Option will end the free-roaming abilities of the wild horses within the Reveille Herd Management Area via dissection of the HMA. Approximately 11.5 miles of the proposed Caliente Option dissect the HMA.

Another possibility is that the wild horses will vacate the HMA to occupy other areas of the Reveille Allotment where they did not exist in 1971, in which case the construction of the rail line would cause a violation of the Act, which would result in the wild horses being removed from the Reveille Allotment.

As with livestock and wildlife, the damming affect of the rail bed will create seasonal water sources immediately adjacent to the up-slope side of the rail bed as snowmelt and rainfall runoff occur. This will likely seasonally increase the concentration of wild horses along the rail bed, leading to increased mortality by train collision.

Public Interest Issue 8: Cultural Resources.

The 1997 RMP/ROD objective is "To protect archaeological, historical, paleontological, and sociocultural resources and manage for information potential, ... public values, ... and conservation ... in conjunction with other multiple uses." See 1997 RMP/ROD, p. 16.

* The related SOP states that "The National Historic Preservation Act of 1966, ... the Archaeological and Historic Preservation Act of 1974; the Archaeological Resources Protection Act of 1979; the American Indian Religious Freedom Act of 1978; the Native American Graves Protection and Repatriation Act of 1990; FLPMA; and Executive Order 11593 provide for the protection and management of cultural resources. ..." See 1997 RMP/ROD, p. 30.

* The related SOP states that "The BLM is required to identify, evaluate, and protect cultural resources on public lands under its administration and to ensure consideration of cultural resources prior to initiation of proposed BLM-authorized activities. If an area will be in any way affected by those activities, a cultural resources inventory will be conducted. ..." See 1997 RMP/ROD, p. 30.

* The related SOP states that "Avoidance of cultural properties is the preferred mitigation. ..." See 1997 RMP/ROD, p. 30.

* The related SOP states that "If eligible properties cannot be avoided, appropriate mitigating measures will be developed in consultation with the Nevada State Historic Preservation Office and the President's Advisory Council on Historic Presentation. No action will be authorized until these agencies are consulted." See 1997 RMP/ROD, p. 30.

Part of the withdrawal area for the Caliente RR Route within the Reveille Allotment crosses Petroglyphs near Witch Well and Pipeline and crosses through an area of Native American cave occupation and cultural sites at the eastern allotment boundary. Specifically, the "west alternative" and the "central alternative" rail alignments pass through the petroglyph area near

Witch Well and Pipeline, and the "common" line runs through the area of cave occupation and cultural sites on the east allotment boundary at "Deep Well Pass".

Impacts:

The LUP Cultural Resources objective will be negatively impacted (in fact, it will be violated) by construction and operation of the proposed Caliente Option.

Construction of the "west" or "central" alternative routes will result in the destruction of the petroglyphs near Witch Well and Pipeline.

Even if the construction of the rail line does not destroy the petroglyphs, they will be destroyed by the vibrations of the passing trains, because the petroglyphs are on fragmented basalt columns, and will be disarticulated by the severe vibrations of the passing trains. See Exhibit 3, Map and Photos #41-53.

Construction of the proposed Caliente Option will result in the destruction of the Native American cave dwellings and surrounding cultural resources at the location the route enters the east allotment boundary, east of Deep Well.

Public Interest Issue 9: Lands and Rights-of-Way.

The 1997 RMP/ROD objective is "To make lands available for community expansion and private economic development and to increase the potential for economic diversity." See 1997 RMP/ROD, p. 18.

* The related determination is "Make an additional 255,380 acres of public lands available for potential disposal." See 1997 RMP/ROD, p. 18. See also Map 20 in 1997 RMP/ROD (wherein Land Tenure areas are identified).

Certain public land is available within the Reveille Allotment, but outside the withdrawal area for the Caliente RR Route, for disposal. See also Map 20 in 1997 RMP/ROD (wherein Land Tenure areas are identified).

* The related determination is "All other lands within the Tonopah Planning Area in which there are no unresolvable conflicts with other resource values will be open to consideration for linear or areal rights-of-ways, leases, and land-use permits. Any such grants, leases, or permits will include appropriate stipulations to protect the area's special values." See 1997 RMP/ROD, p. 19. See also Map 20 in 1997 RMP/ROD (wherein "Utility Corridors" are identified). See also Map 22 in 1997 RMP/ROD (wherein Right-of-Way avoidance areas are identified).

* The related SOP states that "Unless these lands are dedicated to a specific use or uses, or are included within avoidance or exclusion areas, they are available for rights-of-way ..." See 1997 RMP/ROD, p. 32.

* The related SOP states that "All new proposed withdrawals must be identified in an approved land-use plan." See 1997 RMP/ROD, p. 32.

* The related SOP states that "Unless the land has been dedicated for a specific use or uses, public land within the Tonopah Planning Area is available for consideration for linear rights-of-way, and for utility transportation and distribution purposes. Such land is also available for areal rights-of-way purposes." See 1997 RMP/ROD, p. 33.

* The related SOP states that "Prior to issuance of right-of-way authorization, a site-specific environmental analysis is performed which considers, among other things, habitat of threatened, endangered, or Nevada BLM Sensitive Species; sites or places listed or eligible for inclusion on the National Register of Historic Places; wilderness areas and areas being studied for wilderness; riparian areas; nesting/breeding habitat for animals; big game seasonal habitat; visual resources; and other considerations mandated by law." See 1997 RMP/ROD, p. 33.

* The related SOP states that "Designated right-of-way corridors within the Tonopah Planning Area are three miles wide except where topographic constraints exist. Grants for rights-of-way are still required for facilities placed within designated corridors. Designation of a corridor does not necessarily mean that future rights-of-way are restricted to corridors, nor does it mean that there is a commitment by the BLM to approve all right-of-way applications within corridors. ..." See 1997 RMP/ROD, p. 33.

Certain public land within the Reveille Allotment is subject to a Utility Corridor, but only minor part of such Utility Corridor is within withdrawal area for the Caliente RR Route. The withdrawal area for the Caliente RR Route is not "identified" in the Tonopah 1997 RMP/ROD. See Map 20 in 1997 RMP/ROD (wherein Utility Corridor is identified).

Impacts:

The LUP Lands and Rights-of-Way objective will be negatively impacted (in fact, it will be violated) by construction and operation of the proposed Caliente Option.

The Caliente Option is outside the identified utility corridor identified within the Land Use Plan (LUP). Therefore, the Caliente Option is not authorized by the LUP.

The Caliente Option is also not in conformance with the LUP. The LUP provides that "All other lands within the Tonopah Planning Area in which there are no unresolvable conflicts with other resource values will be open to consideration for linear or areal rights-of-ways, leases, and land-use permits". However, numerous unresolvable conflicts are identified within this supplemental comment letter which prohibit the construction along the Caliente Option.

The LUP also provides that "all new proposed withdrawals must be identified in an approved land-use plan." However, the Caliente Option is not identified in an approved land-use plan. As stated herein, the 1997 RMP/ROD is the approved land use plan, and the Caliente Option is not so identified.

Public Interest Issue 10: Recreation.

The 1997 RMP/ROD objective is "To encourage safe, public access and recreational use of public lands while ensuring protection of important resource values." See 1997 RMP/ROD, p. 20.

* The related determination is "In order to protect sensitive resource values such as threatened and endangered species and cultural resources, designate 1,250,290 acres as limited to vehicle use (restrictions limiting use to existing roads, trails, and washes; seasonally, or by type of user) and keep 4,840,811 acres open to unrestricted vehicle use." See 1997 RMP/ROD, p. 20. See also Map 30 in 1997 RMP/ROD (wherein Off Highway Vehicle Restrictions are identified).

* The related SOP states that "Recreation resources will continue to be evaluated on an individual basis as part of activity and project-level planning. Such evaluations will consider the sensitivity of, and the impacts on, recreation resources in the affected area. Stipulations will be attached as appropriate to assure the compatibility of projects with recreation management objectives." See 1997 RMP/ROD, p. 33.

* The related SOP states that "Vehicle use in Wilderness Study Areas (WSAs) is currently managed as limited to existing (1980 inventory) roads, trails and ways. ..." See 1997 RMP/ROD, p. 33.

Off Highway Vehicle Restriction #2 is within a portion of the Reveille Allotment. Part of the withdrawal area for the Caliente RR Route will cross the Off Highway Vehicle Restriction #2 area within the Reveille Allotment. See Map 30 in 1997 RMP/ROD (wherein the Off Highway Vehicle Restrictions are identified).

* The related determination is to "Designate the Tonopah Extensive Recreation Management Area to include the 6,026,570 acres not within a Special Recreation Management Areas. Develop minimal facilities necessary to meet the needs of dispersed recreational uses and to protect the environment. Approximately 60 acres will be used in construction of facilities ...". See 1997 RMP/ROD, p. 21.

The 1997 RMP/ROD objective is "To provide a full range of recreational settings, from rural to wilderness, for the pursuit of a wide variety of recreational opportunities." See 1997 RMP/ROD, p. 21.

* The related determination is to "Manage 465,725 acres of semiprimitive motorized values. Manage 90,370 acres of primitive and 339,120 acres of semiprimitive nonmotorized recreation opportunity settings. Primitive and semiprimitive nonmotorized lands will be managed for Class II Visual Resource Management." See 1997 RMP/ROD, p. 21. See also Map 28 in 1997 RMP/ROD (wherein Recreation Opportunity Spectrums are identified). See also 1997 RMP/ROD, pp. A-25, A-26.

No Special Recreation Management Areas exist within the withdrawal area for the Caliente RR Route within the Reveille Allotment. Some Semi-Primitive Motorized Vehicle Recreation Opportunity Spectrum area exists within a portion of the withdrawal area for the Caliente RR

Route within the Reveille Allotment. The remainder of the withdrawal area for the Caliente RR Route within the Reveill Allotment has no restrictions to off-road recreational use. See Map 28 in 1997 RMP/ROD (wherein the Recreation Opportunity Spectrum areas are identified).

Impacts:

The LUP Recreation objective will be negatively impacted (in fact, it will be violated) by construction and operation of the proposed Caliente Option.

The LUP permits unrestricted off road motorized vehicle recreation along the entire length of the proposed Caliente Option, except for within the South Reveille WSA portion of the route (i.e. "east alternative"), which is restricted to semi-primitive motorized vehicle access. The construction and operation of the Caliente Option will stop or severely restrict the current "unrestricted" authorization of the LUP, by stopping passage at all areas except a relative few crossing/underpasses/ overpasses. Therefore, the Caliente Option violates the LUP provision for unrestricted (and semi-primitive motorized restricted) off road vehicle use, and is not in substantial conformance to the LUP.

Public Interest Issue 11: Wilderness.

The 1997 RMP/ROD objective is "To manage all lands released from wilderness consideration by Congress as a part of the full spectrum of multiple uses within the Tonopah Planning Area." See 1997 RMP/ROD, p. 22. See also Map 26 in 1997 RMP/ROD (wherein Wilderness Study Areas are identified).

* The related determination is "If released by Congress from further wilderness consideration, Wilderness Study Areas will be: 1. Managed as proposed in other resource programs (see Map 26 in 1997 RMP/ROD); 2. Managed for 90,370 acres of primitive values, 245,780 acres of semiprimitive nonmotorized values, and 268,385 acres of semiprimitive motorized values; 3. Managed as Visual Resource Management Class II areas to comply with BLM policy. No competitive events will be authorized." See 1997 RMP/ROD, p. 22. See also 1997 RMP/ROD, p. 27 (relating to VRM as related to WSA).

* The related SOP states that "BLM policy requires that all ... (WSAs) be managed in accordance with the provisions of Section 603(c) of the Federal Land Policy and Management Act and the BLM Interim Management Policy for Lands Under Wilderness Review (IMP) so as not to impair their suitability for preservation of wilderness. ... The IMP contains specific management direction for activities in WSAs which may occur or be authorized." See 1997 RMP/ROD, p. 34.

Part of the South Reveille Wilderness Study Area exists within a portion of the withdrawal area for the Caliente RR Route within the Reveille Allotment. See Map 26 in 1997 RMP/ROD (wherein Wilderness Study Areas are identified). Note that part of the eastern edge of the Kawich Wilderness Study Area is immediately adjacent to a portion of the withdrawal area of the Caliente RR Route within the Reveille Allotment, and that the "east alternative rail alignment" would travel through a portion of the South Reveille Wilderness Study Area. See Map 26 in 1997 RMP/ROD (wherein Wilderness Study Areas are identified).

Impacts:

The LUP Wilderness objective will be negatively impacted (in fact, it will be violated) by construction and operation of the proposed Caliente Option.

The Kawitch and South Reveille WSAs have not been released by Congress from further wilderness consideration. The construction of the Caliente Option, "east alternative" rail alignment would impair its suitability for preservation of wilderness.

The LUP provides that if released, the WSAs would continue to be managed as VRM Class II, and no competitive events would be authorized. VRM Class II provides that "Changes in any of the basic elements (form, line, color, texture) caused by a management activity should not be evident in the characteristic landscape. A contrast may be seen by should not attract attention". Therefore, even if the WSAs were released from wilderness consideration by Congress, the construction of several miles of rail line would attract attention within this VRM Class II area, thereby creating a violation of the LUP. Further, by specifying that no competitive events would be authorized, BLM clearly intended that major disruptions to the VRM class would be prohibited. A several-miles long railroad and nuclear-laden trains passing through the area would certainly create such disruption.

BLM Interim Management Policy for Lands Under Wilderness Review (IMP) does not permit the construction of numerous miles of rail line through or immediately adjacent to Wilderness Study Areas, and specifically does not permit the new construction of the Caliente Option, in particular the "east alternative" rail alignment within the Reveille Allotment.

Public Interest Issue 12: Utility Corridors.

The 1997 RMP/ROD objective is "To facilitate the placement of major transportation and utility systems passing through the Tonopah Planning Area and to minimize conflicts with other resource values." See 1997 RMP/ROD, p. 22. See also Map 20 in 1997 RMP/ROD (wherein Utility Corridors are identified).

* The related determination is "Designate transportation and utility corridors on 668 lineal miles (this includes those previously designated in the Esmeralda-Southern Nye Resource Management Plan ...)". See 1997 RMP/ROD, p. 22.

A minor part of a utility corridor (along Highway 6 within the Warm Springs area) exists within a portion of the withdrawal area for the Caliente RR Route within the Reveille Allotment; the remainder of the withdrawal area for the Caliente RR Route is not within a utility corridor within the Reveille Allotment. See Map 20 in 1997 RMP/ROD (wherein the Utility Corridor is identified).

Impacts:

The LUP Utility Corridors objective will be negatively impacted (in fact, it will be violated) by construction and operation of the proposed Caliente Option. See "Lands and Rights-of-Way".

Public Interest Issue 13: Fluid Minerals.

The 1997 RMP/ROD objective is "To provide opportunity for exploration and development of fluid minerals such as oil, gas, and geothermal resources, using appropriate stipulations to allow for the preservation and enhancement of fragile and unique resources." See 1997 RMP/ROD, p. 22. See also Map 32 in 1997 RMP/ROD (wherein the Fluid Mineral Potential areas are identified).

* The related determination is "A total of 5,360,477 acres ... will be open to fluid mineral leasing subject to standard lease terms and conditions." See 1997 RMP/ROD, p. 22.

* The related SOP states that "BLM actively encourages and facilitates the private development of public mineral resources in a manner that satisfies national and local needs, and provides for economically and environmentally sound exploration, extraction, and reclamation practices." See 1997 RMP/ROD, p. 35.

* The related SOP states that "Land-use plans and multiple-use management decisions of the BLM will recognize that mineral exploration and development can occur concurrently or sequentially with relation to other resource uses." See 1997 RMP/ROD, p. 35.

Moderate oil and gas area, moderate geothermal area, and low oil and gas area exist within the withdrawal area for the Caliente RR Route within the Reveille Allotment. See Map 32 in 1997 RMP/ROD (wherein the Fluid Mineral Potential areas are identified).

Impacts:

The LUP Fluid Minerals objective will be negatively impacted by construction and operation of the proposed Caliente Option.

Construction and operation of the Caliente Option will destroy or disrupt the opportunity for fluid minerals exploration and development, as it will curtail or prohibit access across 45 miles of proposed route within the Reveille Allotment.

Public Interest Issue 14: Locatable Minerals.

The 1997 RMP/ROD objective is "To provide opportunity for exploration and development of locatable minerals such as gold, silver, copper, lead, zinc, molybdenum, etc., consistent with the preservation of fragile and unique resources in areas identified as open to the operation of the mining laws." See 1997 RMP/ROD, p. 23. See also Map 36 in 1997 RMP/ROD (wherein the Locatable Mineral Potential areas are identified). See also Map 24 in 1997 RMP/ROD (wherein the mining withdrawal areas are identified).

* The related determination is "A total of 6,028,948 acres ... will be open to the operation of the mining laws." See 1997 RMP/ROD, p. 23.

* The related SOP states that "BLM provides for mineral entry, exploration, location, operations pursuant to the mining laws in a manner that 1) will not unduly hinder the mineral activities, and 2) assures that these activities are conducted in a manner which will prevent undue or unnecessary degradation of the public land." See 1997 RMP/ROD, p. 35.

Moderate and Low locatable mineral potential areas exist within the withdrawal area for the Caliente RR Route within the Reveille Allotment. See Map 36 in 1997 RMP/ROD (wherein the Locatable Mineral Potential areas are identified).

Impacts:

The LUP Locatable Minderas objective will be negatively impacted (in fact, it will be violated) by construction and operation of the proposed Caliente Option.

Construction and operation of the Caliente Option will destroy or disrupt the opportunity for fluid minerals exploration and development, as it will curtail or prohibit access across 45 miles of proposed route within the Reveille Allotment.

Public Interest Issue 15: Fire Management.

The 1997 RMP/ROD objective is "To protect natural resources from unacceptable damage by fire in a cost-effective manner with a high regard for private property and safety. Promote resource management through prescribed fire to maintain the natural component of the ecosystem." See 1997 RMP/ROD, p. 25. See also Map 38 in 1997 RMP/ROD (wherein Fire Management Zones are identified).

* The related determination is "All wildfires in Fire Management Zone 1 will receive aggressive initial attack, to contain all fires in intensity levels 1 through 6, 90 percent of the time to 300 acres or less." See 1997 RMP/ROD, p. 25.

* The related determination is "If an approved natural prescribed fire plan is written, some wildfires in Fire Management Zone 2 may be allowed to burn to promote a more natural fire regime ..." See 1997 RMP/ROD, p. 25.

* The related SOP states that "The fire management program is guided by the approved Battle Mountain District Fire Management Activity Plan and this RMP." See 1997 RMP/ROD, p. 37.

* The related SOP states that "Every wildfire within the Tonopah Planning Area will have an appropriate action taken. ..." See 1997 RMP/ROD, p. 37.

Fire Management Zone 1 and 2 areas exist within the withdrawal area for the Caliente RR Route within the Reveille Allotment. See Map 38 in 1997 RMP/ROD (wherein Fire Management Zones are identified).

Impacts:

The LUP Fire Management objective will be negatively impacted and violated by construction and operation of the proposed Caliente Option.

The construction and operation of the proposed Caliente Option will prohibit aggressive initial attack of fires due to the restrictive nature of the limited crossings/underpasses/overpasses. Access to fire lines will be extremely curtailed by the restrictive nature of the rail tracks. Therefore, appropriate action as called for by the LUP will be prohibited by the construction and existence of the rail line.

Public Interest Issue 16: Monitoring.

The 1997 RMP/ROD provides that "The Tonopah RMP is intended to be a dynamic document which must be routinely monitored and maintained ... to remain viable. The intent of monitoring is to document the effect on the environment from implementing the RMP to ensure that management actions are meeting their intended purpose." See 1997 RMP/ROD, p. 38.

Impacts:

The LUP Monitoring objective will be negatively impacted by construction and operation of the proposed Caliente Option.

See also "Impacts to Private Interest Issues - Monitoring Investment". The public investment in establishing and monitoring rangeland resources has been substantial. Of the thirty-three BLM Key Areas within the Allotment, ten will be either directly destroyed or their effectiveness diminished due to changes in livestock, wild horse, and wildlife abilities to distribute between and among water sources. Therefore, at least twenty years of data collected at these ten sites will be rendered useless. Literally one-third of the BLM data base will be lost within the Reveille Allotment as it pertains to ability to assess management objectives.

SECTION III. MITIGATIONS TO IMPACTS

First Preferred Mitigation - NO ACTION

Fallini's first preferred mitigation is the "No Action" Alternative, wherein no rail line would be constructed, at least through the Reveille Allotment.

The "No Action" Alternative to the proposed rail alignment would mitigate all private and public interest issues within the Reveille Allotment, and should be the alternative selected. The No Action Alternative is the reasonable alternative, because numerous unresolvable conflicts are created by the proposed Caliente RR Route.

One of the unresolvable conflicts is the conflict created between archeological and cultural resources directives of the LUP and the Wilderness and VRM directives. The three alternative

rail alignments in the Reveille Valley create this conflict. The "western alternative" and the "central alternative" avoid direct incursion into Wilderness Study Areas and Class II VRM areas (although they would be immediately adjacent to them), but the two routes converge over the top of a canyon containing ancient petroglyphs, creating a conflict with archeological and cultural preservation and conservation, contrary to the LUP and the law. Selection of the "eastern alternative" avoids the conflicts with cultural resources by avoiding the petroglyphs, but this alternative route runs through the South Reveille Wilderness Study Area, creating conflicts with the Wilderness directives of the LUP and the law. Thus the selection of any one of the three routes creates an unresolvable conflict.

Another of the unresolvable conflicts is the "Lands and Rights-of-Way" and "Utility Corridors" directives of the LUP. The LUP did not provide a utility or right-of-way corridor through the Reveille Valley, and the Caliente Option, as stated herein, creates unresolvable conflicts with other resource values. The Caliente Option through the Reveille Valley is therefore not in conformance with the LUP. However, the Caliente Option, if it were adjusted to fit the LUP-approved corridor, would run through Echo Canyon and along the Twin Springs Slough. However, the Twin Springs Slough supports a population of a BLM-sensitive and State-protected species, the Hot Creek Tui Chub, to which the rail route would pose an unresolvable problem - namely the potential extirpation of a population of a species protected by BLM and the State of Nevada. Therefore, the selected route does not comply with the LUP-approved utility corridor, and the construction of the rail route within the LUP-approved utility corridor would impose significant danger to a protected species of wildlife.

A third of the unresolvable conflicts is the route itself through a wild horse Herd Management Area. The rail route literally dissects the HMA and by its very nature prohibits the ability of wild horses to free-roam throughout the HMA, in violation of the federal Act that protects the wild horses.

Several other unresolvable issues exist in addition to the three illustrated above. See, generally, this comment letter.

Second Preferred Mitigation - ALTERNATE ROUTE

Fallini's second preferred mitigation is to route the rail, if it is to be constructed at all, down the Chalk Mountain Route or a modified Chalk Mountain Route, or a different route not originally considered, which DOE should re-analyze under NEPA. Fallini was not provided notice of the underlying NEPA process or opportunity to comment to the underlying NEPA document that resulted in the "selection" of the Caliente Option, and such "selection" should be reconsidered for the reasons stated herein, which would have been provided to the original process had Fallini been properly informed so as to allow his participation in the public comment process.

Other alternate routes, including the Chalk Mountain route, a modified Chalk Mountain route, and numerous other routes are available which would be shorter, cheaper, and safer. See **Exhibit 7.**

All adverse impacts to the private and public interests within the Reveille Allotment can be mitigated if the Chalk Mountain route or another route were selected. DOE/BLM should

reconsider adoption of the Chalk Mountain route or another route, especially since Fallini is led to believe that it was "vetoed" by the Department of Defense due to misinformation at the time that the frequency of train deliveries would be one train per hour, rather than three to five trains per week.

Another reason sometimes given for the rejection by DOD of the Chalk Mountain route is that it would interfere with training missions and there is a possibility of ordnance being dropped on the rail route. However, selection of the Caliente Option does not mitigate such possibility, because DOD conducts year-round training operations through the Railroad and Reveille Valleys, particularly in the vicinity of the proposed Caliente Option. Plane crashes and dropped ordnance have occurred within the Reveille Allotment, along the proposed Caliente Option, and the selection of the route creates an unresolvable safety issue.

The Chalk Mountain route would (apparently) have little difference in impact to the neighboring allotment to the east, at least in terms of distance through their grazing allotment.

The Chalk Mountain route or another route would also negate the need to mitigate impacts in the neighboring allotments to the west (Stone Cabin and Ralston Allotments) that are created with the Caliente Option.

The Chalk Mountain route or another route would reduce the costs to construct the project by an estimated 400 million dollars, associated with the additional 168 kilometers (105 miles) required for the Caliente Option over the Chalk Mountain route.

The Chalk Mountain route or another route would reduce exposure of the train to terrorist attack and potential accidents by an amount commensurate with the reduction of 168 kilometers (105 miles) of unsecured rail line, by entering the Nellis Air Force Range (and Nevada Test Site) 105 miles sooner.

If, ultimately and after reconsideration of the Chalk Mountain route or another route, the Caliente Option is still selected, Fallini's preferred mitigations are contained in the third and fourth preferred mitigations, expressed below.

Third Preferred Mitigation.

Fallini's third preferred mitigation is as follows:

A. PRIVATE INTEREST ISSUES MITIGATIONS.

Private Interest Issue 1. Private Land.

Nothwithstanding the mitigations suggested below regarding grazing rights, the negative impacts to the historic private ranch lands within the Reveille Valley as a result of construction and operation of the proposed Caliente Option, both in terms of economic damage to Fallini and in terms of loss of cultural heritage and aesthetic values of the ranch lands, is an unresolvable and unmitigatable negative impact.

Private Interest Issues 2-7. Grazing Preference, Base Property, Nevada Grazing Rights, Range Improvements and Federal Grants, and Water Rights.

DOE should construct underpasses every 1/4 -mile along the rail route through the Reveille Allotment. Each underpass should be constructed in a manner that would allow easy passage by cattle, wildlife, wild horses, and a full-size pickup truck and goose-neck horse trailer. In the event that underpasses are not constructed every 1/4 -mile, then at most, the underpasses should be constructed at no greater than every 1-mile, as well as where the rail bed crosses the roads leading to private lands at Reveille Mill and Eden Creek, at the road leading northeast from Cedar Ranch onto the east side of the Reveille Mountains, the highway crossing in Railroad Valley, and at the road crossing leading to Ned's Cache, and at each place where the proposed rail bed crosses Fallini's pipelines.

To mitigate for increased livestock management costs to Fallini, Fallini should be granted patent ownership to five 40-acre parcels of land within the Reveille Allotment for each omitted 1/4-mile underpass. Parcels will be selected by Fallini from the lands approved by the Bureau of Land Management for private sale under LUP provisions. Fallini anticipates this amount of land would be needed to be sold and/or developed to offset increased livestock operations costs over the period of construction and use of the proposed Caliente Option.

Assuming any restrictions to low-altitude flight will accompany the construction of the rail line, Fallini should be exempted from such restrictions, because it is vital to the operation that Fallini continue to gather and move cattle with helicopter.

DOE should fence the RR right-of-way as narrow as possible to provide rail bed and maintenance road width. Maintenance of the fence should be the responsibility of DOE and/or BLM. The fence should be thoroughly inspected at least once every six months. DOE should be liable for any loss or damages incurred by the Twin Springs Ranch due to poor fence maintenance.

DOE should construct replacement range improvements to replace those lost/severed as described above under Impacts.

Replacement water sources:

If the rail bed can be constructed so as not to disturb existing water sources, the proximity of the rail route will nevertheless require replacing lost or reduced-service due to proximity to the rail bed at Black Springs, the end trough of Fivemile Spring and Pipeline, the end trough at George's Water Pipeline Extension, Volcano Pit, Witch Well and Pipeline, Cedar Pipeline (including Four Troughs), Cedar Pipeline Extension, and the end trough at Ned's Cache pipeline. The replacement waters should be constructed one to three miles east/north of the rail bed. Under no circumstances should any water development in the Reveille Allotment relating in any way to the rail route be at any time owned by any federal, county, or city governments, or any private or public corporation acting on behalf or behest of such governments or for the purposes of gaining water rights for any purpose other than the temporary needs to construct the railroad. Following rail construction, any wells used for construction of the rail bed and associated needs should be transferred to Fallini for livestock use. Wells not needed to mitigate for livestock waters and

forage impinged upon by the rail route and not transferred to Fallini, should be plugged and capped per Nevada state water engineer's requirements. Any wells that will be drilled should be drilled on the side of the rail bed where the use is being curtailed from existing water sources.

Replacement livestock handling facilities:

Corrals, troughs, and ponds/reservoirs that are destroyed or whose effectiveness is curtailed by construction of the rail bed should be authorized by BLM as Range Improvement Permits under the ownership of Fallini, and should be constructed at DOE's cost, so as to replace in like manner and degree the existing range improvements.

Replacement Seeding:

Seeding of areas disrupted by construction of the rail route should be seeded with native species endemic to the area and the vegetation types/ecological range sites being crossed by the rail bed.

Private Interest Issues 8-13. Wildlife, Recreation, Aesthetics, Cultural Resources, Wild horses, and Wilderness Study Area/Wilderness.

See mitigations described above, and "Public Interest Issues Mitigations", below.

Private Interest Issue 14. Monitoring Investment.

DOE should establish sufficient fund and distribute to Fallini sufficient funds as necessary to re-establish monitoring sites at appropriate locations, and to monitor ecological condition and forage production, trend in condition, utilization, utilization patterns, livestock distribution, wild horse distribution, wildlife distribution, and other monitoring studies as Fallini decides are necessary to determine private and public management objectives. This may include fewer or more monitoring locations and fewer or more monitoring methods employed compared to current locations and methods.

B. Public Interest Issues Mitigations

Public Interest Issue 1. Watersheds.

The anticipated impacts to watersheds can be partially mitigated by the measures outlined under the third preferred mitigation package. For example, the construction of replacement water sources away from the rail line, together with closely-placed underpasses, can mitigate the potential loss of livestock forage, can maintain water sources for livestock and wildlife, and can maintain some free-roaming ability of the livestock and wild horses.

However, the damming effect of the rail bed will still have unresolvable impacts to down-slope watershed areas of the allotment. In addition, if underpasses are not placed every 1/4 mile or so, the free-roaming nature of the livestock and the wild horses will be curtailed, and even if underpasses are placed every mile, the livestock and wild horse trailing to such crossing points

will likely have detrimental trailing impacts to the watershed objective, by creating deeper trails which will reduce vegetative cover, in turn affecting the watershed.

Public Interest Issue 2. Vegetation.

See Watersheds, above.

Public Interest Issue 3. Visual Resource Management.

To Fallini's knowledge, the conflicts to the Visual Resource Management objective created by the proposed Caliente Option cannot be mitigated.

Public Interest Issue 4. Wildlife Habitat Management.

Some conflicts to the Wildlife Habitat Management objective can be mitigated, and are the same as for those of Watershed and Vegetation. However, to Fallini's knowledge, the loss and fragmentation of sagebrush habitat and habitat for special status species cannot be mitigated

Public Interest Issue 5. Special Status Species.

To Fallini's knowledge, the conflicts to the Special Status Species objective created by the proposed Caliente Option cannot be mitigated.

Public Interest Issue 6. Livestock Grazing Management.

Some conflicts to Livestock Grazing Management can be mitigated, as discussed herein. For example, the construction of replacement waters will partially offset the loss of existing waters, and the construction and maintenance of a fence encompassing the right-of-way will mitigate livestock deaths. However, to some extent, the free-roaming nature of the livestock herd will be unresolvably lost, and the open-range nature of this historic ranching operation will be unresolvably lost.

Public Interest Issue 7. Wild Horses and Burros.

If underpasses are constructed every 1/4 mile, and if they are successful in permitting wild horses to cross, the free-roaming nature of the wild horses will be continued, although to a lesser extent. Otherwise, to Fallini's knowledge, the conflicts to the Wild Horse and Burro objective created by the proposed Caliente Option cannot be mitigated.

Public Interest Issue 8. Cultural Resources.

To Fallini's knowledge, the conflicts to the Cultural Resources objective created by the proposed Caliente Option cannot be mitigated.

Public Interest Issue 9. Lands and Rights-of-Way.

To Fallini's knowledge, the conflicts to the Lands and Rights-of Way objective created by the proposed Caliente Option cannot be mitigated.

Public Interest Issue 10. Recreation.

To Fallini's knowledge, the conflicts to the recreation objective created by the proposed Caliente Option cannot be mitigated.

Public Interest Issue 11. Wilderness.

To Fallini's knowledge, the conflicts to the Wilderness objective created by the proposed Caliente Option (at least the "east alternative" rail alignment) cannot be mitigated. Further, if the "east alternative route" is not selected, the other "alternatives" nevertheless conflict with VRM objectives.

Public Interest Issue 12. Utility Corridors.

To Fallini's knowledge, the conflicts to the Utility Corridor objective created by the proposed Caliente Option cannot be mitigated.

Public Interest Issue 13. Fluid Minerals.

The conflicts to the Fluid Minerals objective created by the proposed Caliente Option can be somewhat mitigated by the mitigation measures suggested by Fallini. However, underpasses at road crossings may have to be large enough to accommodated drill rigs, etc. In addition, security measures during construction and during periods of train passage may create unresolvable conflicts to the exploration and development of fluid materials that may need access across the train route at all times of the day.

Public Interest Issue 14. Locatable Minerals.

The conflicts to the Locatable Minerals objective created by the proposed Caliente Option can be somewhat mitigated by the mitigation measures suggested by Fallini. However, underpasses at road crossings may have to be large enough to accommodated drill rigs, ore trucks, Haul Pacs,

etc. In addition, security measures during construction and during periods of train passage may create unresolvable conflicts to the exploration and development of fluid materials that may need access across the train route at all times of the day.

Public Interest Issue 15. Fire Management.

The conflicts to the Fire Management objective created by the proposed Caliente Option can be somewhat mitigated by the mitigation measures suggested by Fallini. For example, the construction of underpasses every 1/4-mile will facilitate rapid response to all portions of any potential fire lines. However, the fewer underpasses that are constructed, the more this objective has unresolvable conflicts with the proposed route.

Public Interest Issue 16. Monitoring Investment.

The conflicts to the private and public monitoring investment, including the loss of use of historic data, is not resolvable and cannot be mitigated. Fallini's suggested mitigation measure will, however, help develop the monitoring necessary to determine impacts of the rail operation, help determine whether additional mitigations are necessary (such as more water developments above those contemplated herein), and will help determine success of future management efforts to meet private and public resource objectives.

Fourth Preferred Mitigation.

If the mitigations suggested under the First, Second, or Third Preferred Mitigation are not undertaken, Fallini suggests the Fourth Preferred Mitigation. Under this scenario, Fallini assumes that none of the suggested mitigations of the Third Preferred Mitigation to make the range whole again and protect livestock, wild horses, and wildlife from the rail construction and operation (i.e., fencing, replacement of waters, regular and numerous underpasses, monitoring fund establishment, etc.) are undertaken.

A. Private Interest Issues Mitigations

Private Interest Issue 1. Private Land.

Nothwithstanding the mitigations described below, the negative impacts to the historic private ranch lands within the Reveille Valley as a result of construction and operation of the proposed Caliente Option, both in terms of economic damage to Fallini and in terms of loss of cultural heritage and aesthetic values of the ranch lands, is an unresolvable and unmitigatable negative impact.

Private Interest Issues 2-7. Grazing Preference, Base Property, Nevada Grazing Rights, Range Improvements and Federal Grants, and Water Rights.

1. Reimburse Fallini for the life of the construction period and the life of the rail route for the loss of value to the private property values of Fallini.

2. Reimburse Fallini for the life of the construction period and the life of the rail route for the loss of the range improvements, grazing preference, base property, and Nevada grazing rights and the value of the loss of market product and the replacement-cost investment in the range improvement developments.

Alternatively to receipt of annual re-imbursements, Fallini would opt to receive all or a portion of the reimbursement in the form of patent title to public lands within the Reveille Allotment, selected by Fallini from lands approved by the Bureau of Land Management for private sale under LUP provisions. Such lands would be equate to approximately 65 sections (41,600 acres). It is anticipated that Fallini would need to sell the vast majority of such acreage in order to pay for the development of sufficient hay and pasture ground to support the removed livestock.

Alternatively to receipt of patent to the above amount of land, Fallini would opt to receive all or a portion of the reimbursement in the form of patent title to 10 sections of land, of which DOE would pay for the fencing and internal cross-fencing of such lands; DOE would pay for the construction of feeding facilities (feed bunks, etc.); DOE would pay for the purchase and installation of wells sufficient to supply 8 center-pivot irrigation systems, and the purchase and installation of 8 center-pivot irrigation systems, and; DOE would pay for the preparation and seed costs to start the farming operations on the 8 center-pivot irrigation systems needed to sustain the livestock removed from the allotment. Finally, DOE would re-imburse Fallini for the value of the Range Improvements destroyed/disrupted by the construction and operation of the rail route.

Assuming any restrictions to low-altitude flight will accompany the construction of the rail line, Fallini should be exempted from such restrictions, because it is vital to the operation that Fallini continue to gather and move cattle with helicopter.

Private Interest Issues 8-13. Wildlife, Recreation, Aesthetics, Cultural Resources, Wild horses, and Wilderness Study Area/Wilderness.

See mitigations described above, and "Public Interest Issues Mitigations", below.

Private Interest Issue 14. Monitoring Investment.

The loss of historic monitoring locations and data is an unresolvable, unmitigatable loss. In addition, Fallini will sustain substantial unresolvable costs incurred as a result of needing to re-establish and monitor numerous new monitoring location at Fallini's own cost.

B. Public Interest Issues Mitigations

Public Interest Issue 1. Watersheds.

The anticipated impacts to watersheds will be unmitigated by the measures outlined under the fourth preferred mitigation package. For example, while fewer cattle will inhabit the allotment on the down-slope portion below the rail bed, cattle use will continue on the up-slope portion, and the same scenario of concentration will occur periodically with snowmelt or rainfall runoff.

In addition, the damming effect of the rail bed will still have unresolvable impacts to down-slope watershed areas of the allotment. In addition, the free-roaming nature of the livestock and the wild horses will be curtailed, and trailing of livestock and wild horses to such crossing points as exist will likely have detrimental trailing impacts to the watershed objective, by creating deeper trails which will reduce vegetative cover, in turn affecting the watershed.

Public Interest Issue 2. Vegetation.

See Watersheds, above.

Public Interest Issue 3. Visual Resource Management.

To Fallini's knowledge, the conflicts to the Visual Resource Management objective created by the proposed Caliente Option cannot be mitigated.

Public Interest Issue 4. Wildlife Habitat Management.

The conflicts to the Wildlife Habitat Management objective will not be mitigated by the fourth alternative mitigation. In addition, to Fallini's knowledge, the loss and fragmentation of sagebrush habitat and habitat for special status species cannot be mitigated

Public Interest Issue 5. Special Status Species.

To Fallini's knowledge, the conflicts to the Special Status Species objective created by the proposed Caliente Option cannot be mitigated.

Public Interest Issue 6. Livestock Grazing Management.

Some conflicts to Livestock Grazing Management can be mitigated by the fourth preferred alternative. For example, the construction of replacement pasture, feed bunks, and pivots necessary to grow sufficient hay to pay haying costs and sustain the cattle removed from the range, nevertheless, the operational costs to Fallini by having the Kawitch Mountains side of the rail route restricted from the remainder of the Allotment will continue to cause unmitigated increased costs to the livestock operation, the free-roaming nature of the livestock herd will be

unresolvably lost, and the open-range nature of this historic ranching operation will be unresolvably lost.

Public Interest Issue 7. Wild Horses and Burros.

If underpasses are not constructed every 1/4 mile (and/or if they are constructed through the HMA but wild horses do not use them), the free-roaming nature of the wild horses will be unresolvably lost, and to Fallini's knowledge, the conflicts to the Wild Horse and Burro objective created by the proposed Caliente Option cannot be mitigated by the fourth preferred mitigation.

Public Interest Issue 8. Cultural Resources.

To Fallini's knowledge, the conflicts to the Cultural Resources objective created by the proposed Caliente Option cannot be mitigated by the fourth preferred mitigation..

Public Interest Issue 9. Lands and Rights-of-Way.

To Fallini's knowledge, the conflicts to the Lands and Rights-of Way objective created by the proposed Caliente Option cannot be mitigated by the fourth preferred mitigation..

Public Interest Issue 10. Recreation.

To Fallini's knowledge, the conflicts to the recreation objective created by the proposed Caliente Option cannot be mitigated by the fourth preferred mitigation..

Public Interest Issue 11. Wilderness.

To Fallini's knowledge, the conflicts to the Wilderness objective created by the proposed Caliente Option (at least the "east alternative" rail alignment) cannot be mitigated by the fourth preferred mitigation.. Further, if the "east alternative route" is not selected, the other "alternatives" nevertheless conflict with VRM objectives.

Public Interest Issue 12. Utility Corridors.

To Fallini's knowledge, the conflicts to the Utility Corridor objective created by the proposed Caliente Option cannot be mitigated by the fourth preferred mitigation..

Public Interest Issue 13. Fluid Minerals.

The conflicts to the Fluid Minerals objective created by the proposed Caliente Option will not be mitigated, and security measures during construction and during periods of train passage may create unresolvable conflicts to the exploration and development of fluid materials that may need access across the train route at all times of the day by the fourth preferred mitigation.

Public Interest Issue 14. Locatable Minerals.

The conflicts to the Locatable Minerals objective created by the proposed Caliente Option will not be mitigated, and security measures during construction and during periods of train passage may create unresolvable conflicts to the exploration and development of fluid materials that may need access across the train route at all times of the day.

Public Interest Issue 15. Fire Management.

The conflicts to the Fire Management objective created by the proposed Caliente Option will not be mitigated by the fourth preferred mitigation.

Public Interest Issue 16. Monitoring Investment.

The conflicts to the private and public monitoring investment, including the loss of use of historic data, is not resolvable and cannot be mitigated. If no fund is created and funds disbursed to Fallini and BLM, then both Fallini and BLM will sustain additional unmitigated damage in the form of having to re-establish and monitor at their own unreimbursed costs.

Table 5.30.3 Reveille Allotment Impacted Features

Impacted Features	East	Central	West
Stockwaters w/in 4 miles	40	40	40
Stockwaters w/in 1 mile	10	10	10
Fences (ea)	2	2	2
Roads (ea)	1	1	1
Trails (ea)	9	12	12
Pipelines (ea)	2	5	5
Other: Corrals	5	5	5

Table 5.30.4 Reveille Allotment Mitigation Project Comparison

Proposed Mitigation Units	East		Central		West	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)		94.6		95.2		97.4
Gates (ea)	4	382	4	384	4	394
Railroad Cattleguards (ea)	2	2	2	2	2	2
Road Cattleguards (ea)		380		382		392
Road Crossings (ea)	1	1	1	1	1	1
Trail Crossings (ea)	9		12		12	
Cattle Crossings (ea)	180		178		183	
Sheep Crossings (ea)						
Pipeline Construction (mi)	12	8.5	12	8.5	12	8.5
Pipeline Crossings (ea)	2	2	5	5	5	5
Underpasses		189		190		195
Corral Relocation	5	5	5	5	5	5
Unspecified Stockwaters						
Troughs (ea)	11	11	11	11	11	11
Wells (ea)	1		1		1	
Springs (ea)	1	1	1	1	1	1
Other						

Note: The Twin Springs Ranch is adamant that leaving the right-of-way unfenced is unworkable and unacceptable. The Permittee declined to discuss an unfenced alternative. In order to avoid a gap in data for the EIS, RCI estimated the *Without Fencing* units in Table 5.30.4. All mitigation units are estimates and cannot be accurately determined until the centerline of the track is staked and design plans are available.

EXHIBIT 1

Fallini Private Land Map

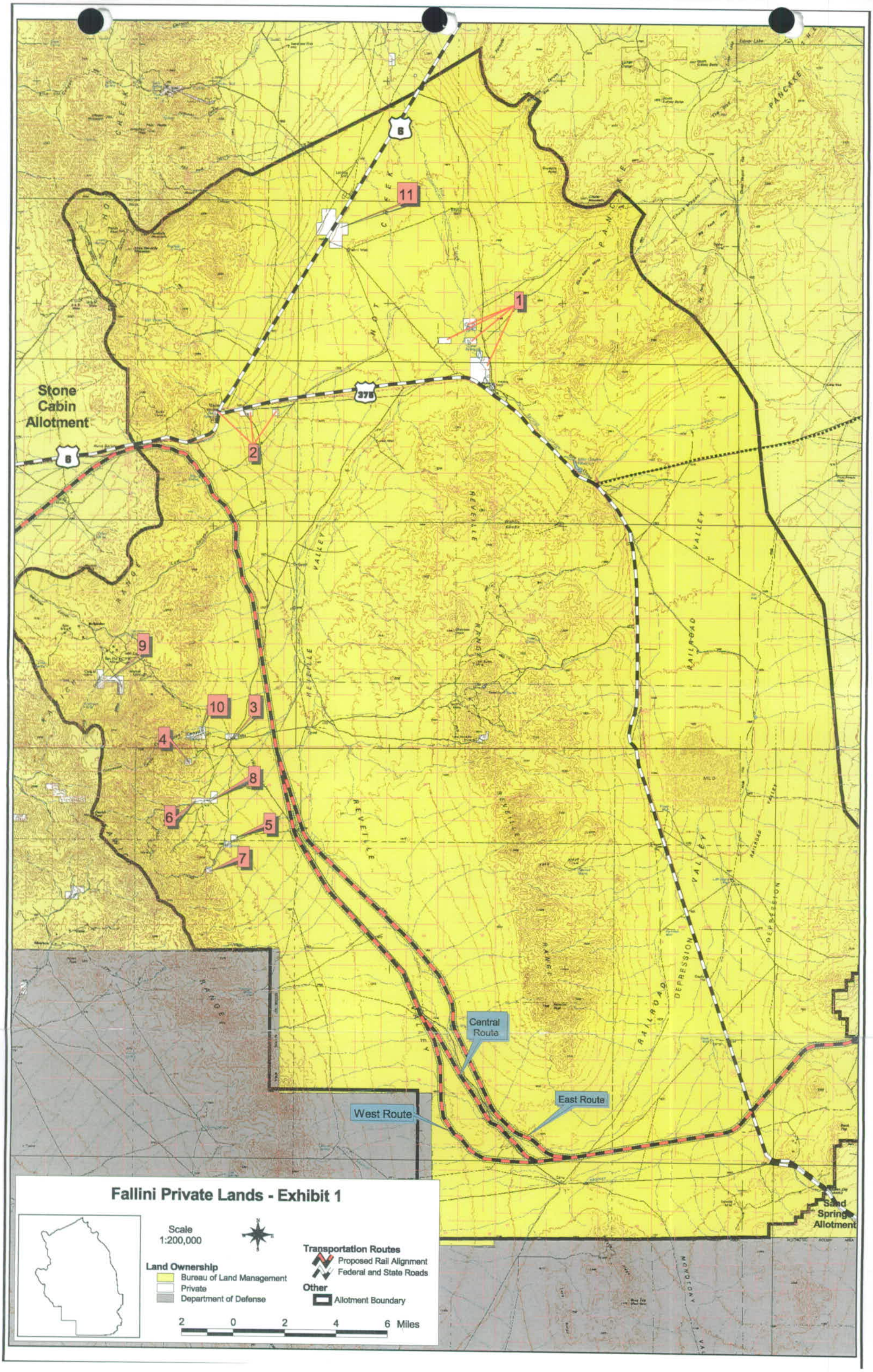
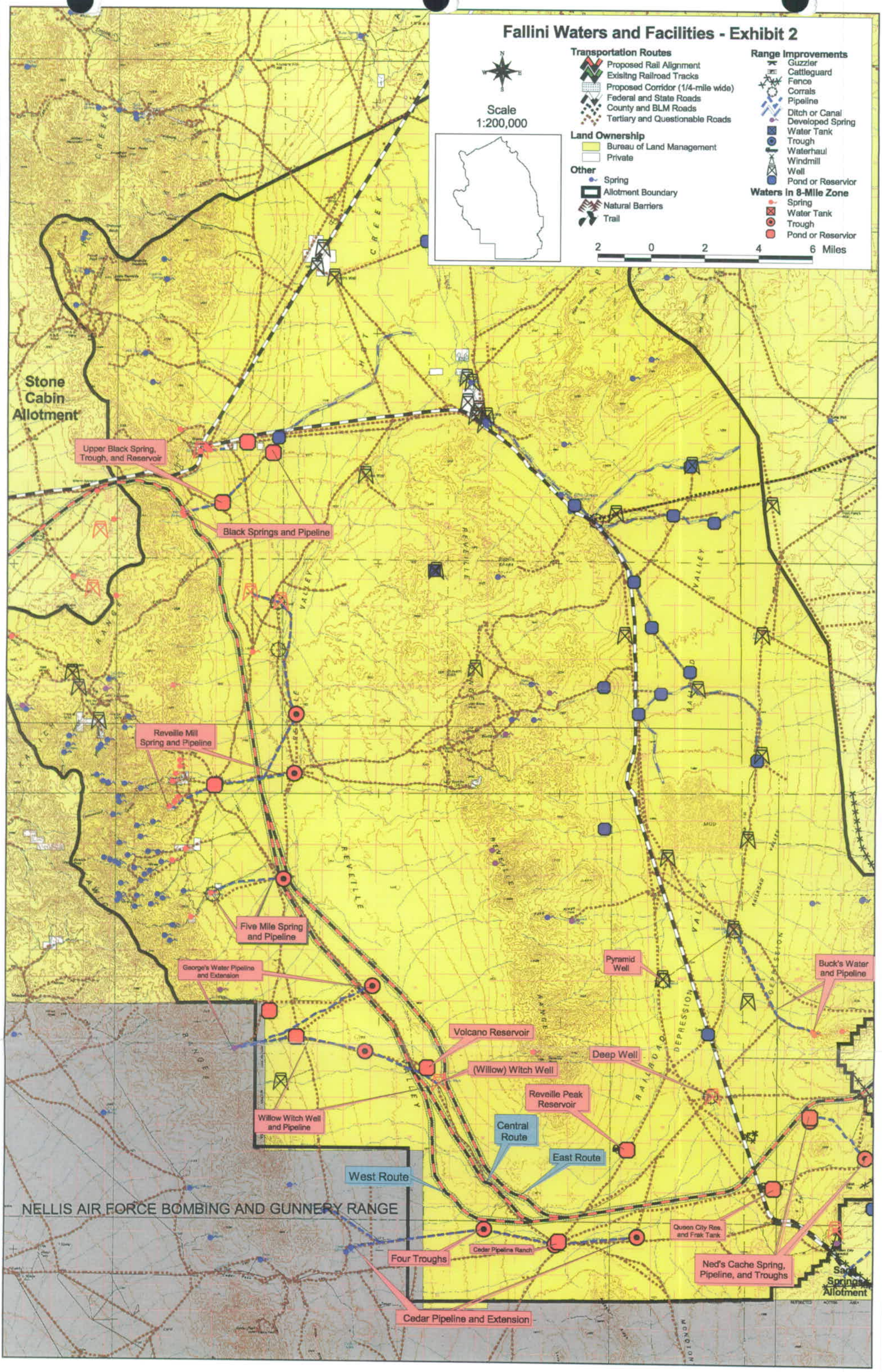

Fallini Private Lands - Exhibit 1
Scale
1:200,000
Land Ownership
Bureau of Land Management
Private
Department of Defense
Transportation Routes
Proposed Rail Alignment
Federal and State Roads
Other
Allotment Boundary
2 0 2 4 6 Miles
Stone Cabin Allotment
Sand Spring Allotment
Central Route
East Route
West Route
1
2
3
4
5
6
7
8
9
10
11
6
375
6
REVEILLE VALLEY
RAILROAD VALLEY
RAILROAD DEPRESSION
PANCAKE

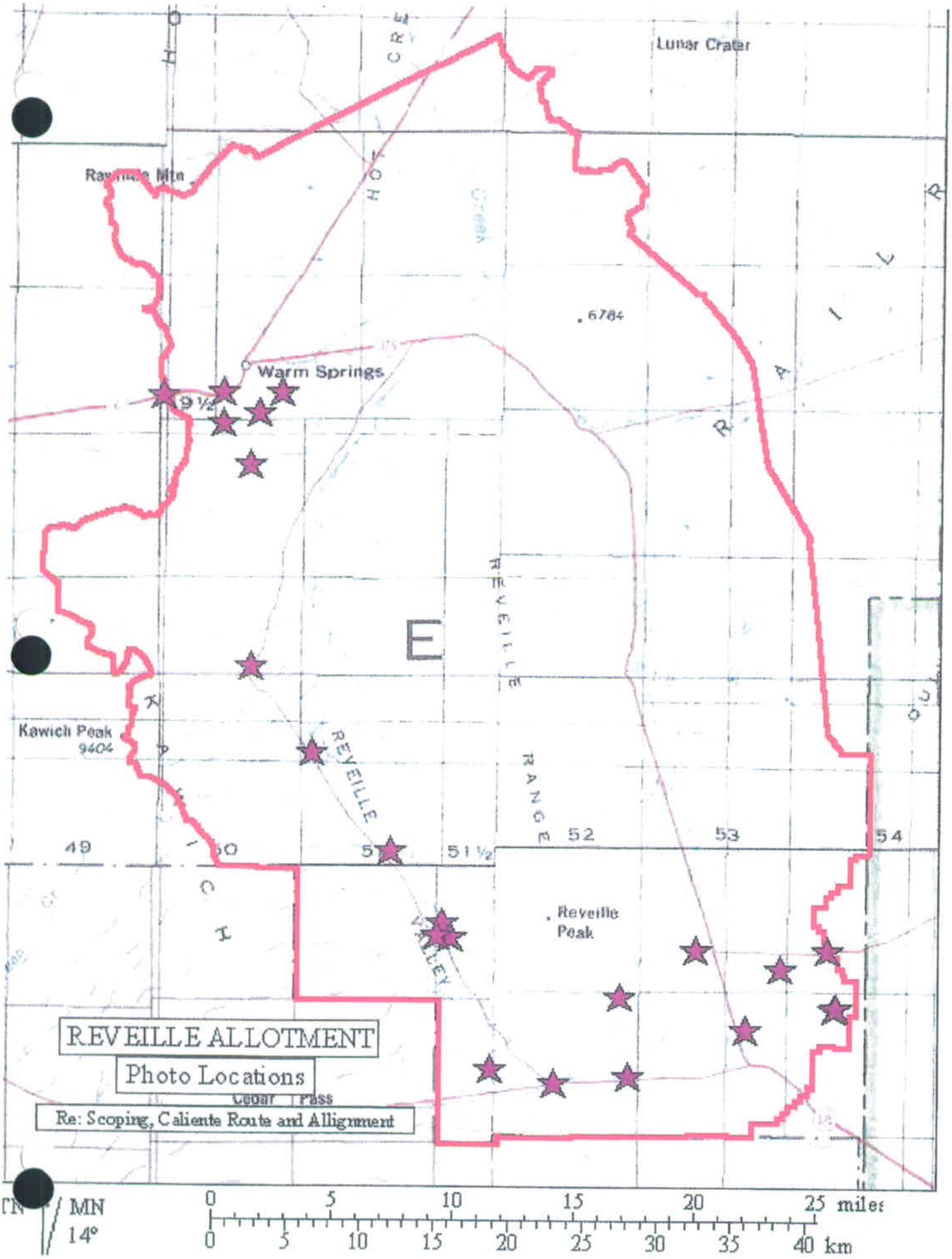
EXHIBIT 2

Fallini Water Development Map


Fallini Waters and Facilities - Exhibit 2
Scale
1:200,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Ditch or Canal
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
Waters in 8-Mile Zone
Spring
Water Tank
Trough
Pond or Reservior
2 0 2 4 6 Miles
Stone Cabin Allotment
Upper Black Spring, Trough, and Reservoir
Black Springs and Pipeline
Reveille Mill Spring and Pipeline
Five Mile Spring and Pipeline
George's Water Pipeline and Extension
Pyramid Well
Buck's Water and Pipeline
Volcano Reservoir
Deep Well
(Willow) Witch Well
Reveille Peak Reservoir
Willow Witch Well and Pipeline
Central Route
East Route
West Route
NELLIS AIR FORCE BOMBING AND GUNNERY RANGE
Four Troughs
Cedar Pipeline Ranch
Queen City Res. and Frak Tank
Ned's Cache Spring, Pipeline, and Troughs
Sand Springs Allotment
Cedar Pipeline and Extension

FALLINI EXHIBIT 3

Photos and Key



Lunar Crater
Rawhide Mtn
Warm Springs
6784
9½
Kawich Peak
9404
REVEILLE
RANGE
REVEILLE
VALLEY
Reveille
Peak
49
50
51½
52
53
54
REVEILLE ALLOTMENT
Photo Locations
Re: Scoping, Caliente Route and Allignment
MN
14°
0 5 10 15 20 25 miles
0 5 10 15 20 25 30 35 40 km

PRIVATE INTERESTS OF FALLINI - Black Springs

Photo 1. Black Springs tunnel entrance-pipe, pipeline running east from Black Springs.

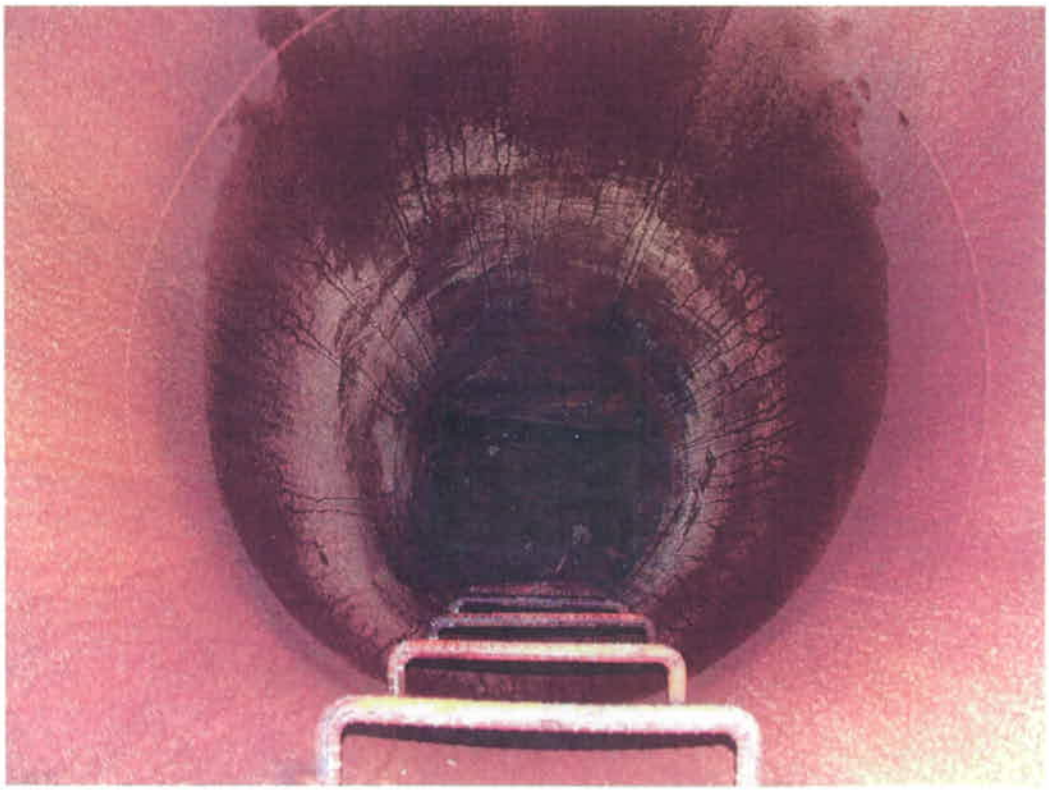


Photo 2. Black Springs tunnel entrance-pipe.

PRIVATE INTERESTS OF FALLINI - Black Springs

Photo 3. Tunnel-type spring development. Spring is in rear of tunnel.

Photo 4. Black Springs, showing spring at back of tunnel.

PRIVATE INTERESTS OF FALLINI - Black Springs

Photo 5. Upper Black Springs Trough and Reservoir.

Photo 6. Upper Black Springs Trough and Reservoir. Note wildlife (mallard ducks) use of privately-funded and privately-owned reservoir.

PRIVATE INTERESTS OF FALLINI - Black Springs

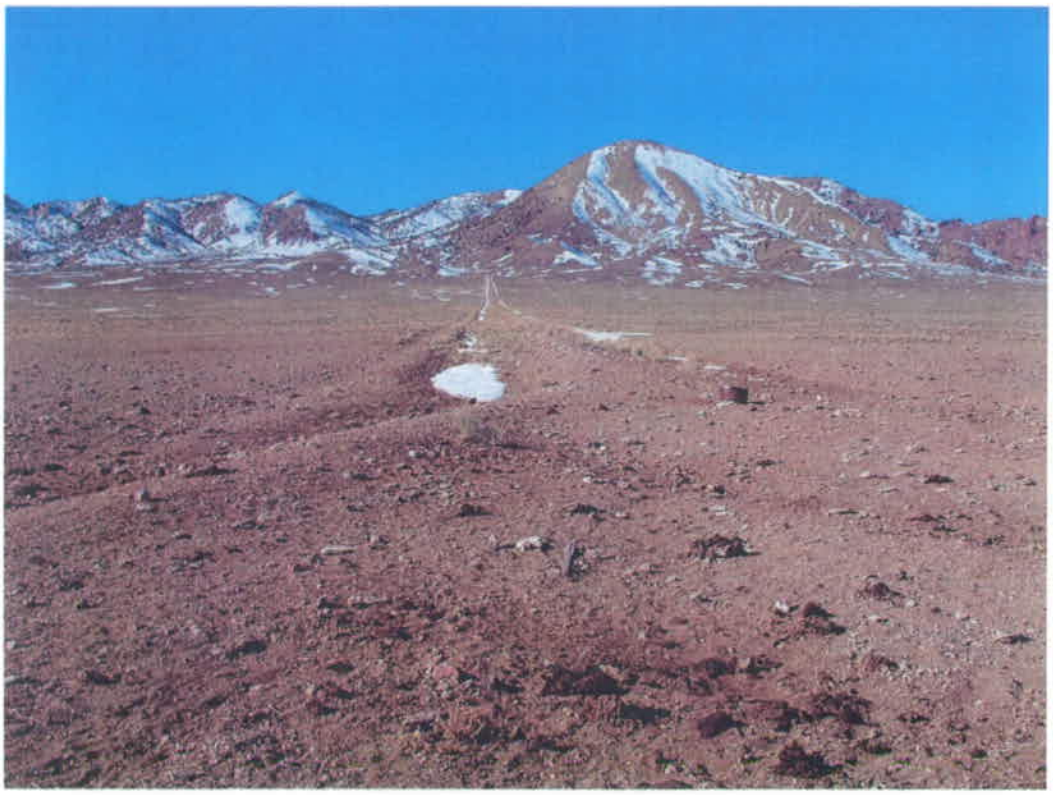


Photo 7. View west, from Upper Black Springs Trough & Reservoir, toward Black Springs Tunnel in the Kawitch Mountain Range.

Photo 8. View southwest toward Upper Black Springs Trough & Reservoir, from Lower Black Springs Trough & Corrals, at main road in Reveille Valley.

PRIVATE INTERESTS OF FALLINI - Black Springs & Reveille Mill

Photo 9. Lower Black Springs Trough & Corral

Photo 10. Reveille Mill Trough and Reservoir.

PRIVATE INTERESTS OF FALLINI - Reveille Mill

Photo 11. Corral and loading facilities at Reveille Mill. See also photo below.

Photo 12. Corral and loading facilities at Reveille Mill. See also photo above.

PRIVATE INTERESTS OF FALLINI - Fivemile Spring and Pipeline.

Photo 13. End-of-line trough, corral, & loading facilities. See also photos below and on following page.

Photo 14. End-of-line trough, corral, & loading facilities. See also photos above and on following page. Note raptor habitat (trees) as a result of range improvement development.

PRIVATE INTERESTS OF FALLINI - Fivemile Spring and Pipeline.

Photo 15. End-of-line trough, corral, & loading facilities. See also photos on previous page.

Photo 16. View west from end-of-line trough, up-pipeline toward source. Kawitch Mountain Range, Kawitch WSA in background.

PRIVATE INTERESTS OF FALLINI - George's Water Pipeline & Extension

Photo 17. George's Water Pipeline Extension, showing end-of-line trough, corral, loading facilities, & reservoir. Reveille Mountains & Reveille WSA in background.

Photo 18. George's Water Pipeline Extension. View west toward source, Kawitch Mountain Range, and Kawitch WSA

PRIVATE INTERESTS OF FALLINI - George's Water Pipeline & Extension; Volcano Pit Reservoir

Photo 19. Reservoir at George's Water Pipeline Extension. View west.

Photo 20. Volcano Pit Reservoir. Reservoir fills with water with spring run-off. Reveille Mountain Range & Reveille WSA in background.

PRIVATE INTERESTS OF FALLINI - Witch Well

Photo 21. Witch Well, with tank, trough, corral, and loading facilities. Reveille Mountain Range and Reveille WSA in background.

Photo 22. Witch Well, showing troughs, tank.

PRIVATE INTERESTS OF FALLINI - Witch Well

Photo 23. Witch Well, view northeast.

Photo 24. View south from Witch Well, showing sandy draw (subject to washouts).

PRIVATE INTERESTS OF FALLINI - Cedar Pipeline (including Four Troughs) and Cedar Pipeline Extension

Photo 25. Corral and trough at Four Troughs, on Cedar Pipeline.

Photo 26. Trough at Four Troughs, on Cedar Pipeline.

PRIVATE INTERESTS OF FALLINI - Cedar Pipeline (including Four Troughs) and Cedar Pipeline Extension

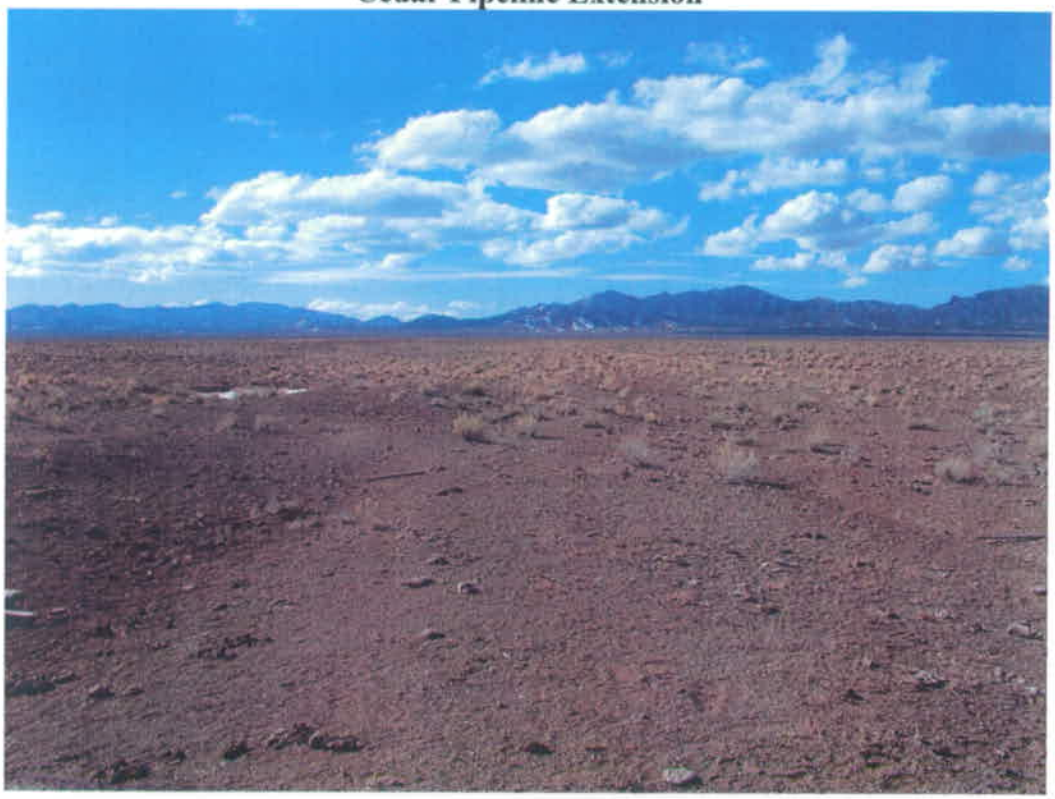


Photo 27. View west from Four Troughs, toward source, Kawitch Mountains.

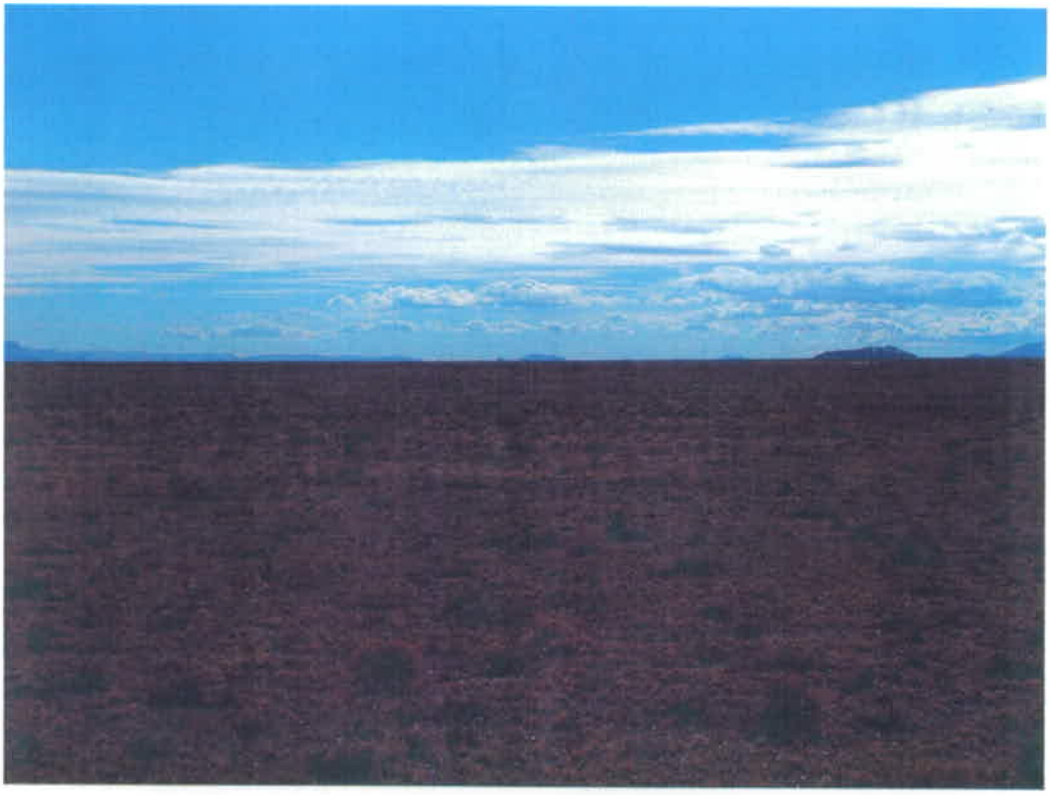


Photo 28. View south from near Four Troughs, toward Yucca Mountain (behind peak on horizon in picture center).

PRIVATE INTERESTS OF FALLINI - Cedar Pipeline (including Four Troughs) and Cedar Pipeline Extension

Photo 29. Cedar Pipeline Ranch, on Cedar Pipeline. Historic family winter camp for livestock operations on Reveille Allotment.

Photo 30. Cedar Pipeline Extension, showing end-of-line trough and reservoir.

PRIVATE INTERESTS OF FALLINI - Ned's Cache Pipeline

Photo 31. View of southern spring, well at Ned's Cache Pipeline source.

Photo 32. View of northern spring at Ned's Cache Pipeline source.

PRIVATE INTERESTS OF FALLINI - Ned's Cache Pipeline

Photo 33. Upper (eastern) trough on Ned's Cache Pipeline.

Photo 34. End-of-line (western) trough and reservoir on Ned's Cache Pipeline.

PRIVATE INTERESTS OF FALLINI - Deep Well; Reveille Peak Reswervoir

Photo 35. View of well, tank, troughs, corral, and loading facilities at Deep Well.

Photo 36. Reveille Peak Reservoir (water haul site). Reveille Mountains, Reveille WSA in background.

PRIVATE INTERESTS OF FALLINI - Frak Tank & Queen City Reservoir

1807

Photo 37. Frak tank and Queen City Reservoir (water haul site). Quinn Canyon Mountain Range in background to the east.

Photo 38. Mallard Ducks on Upper Black Springs Trough and Reservoir.

Photo 39. Mallard Ducks on Upper Black Springs Trough and Reservoir.

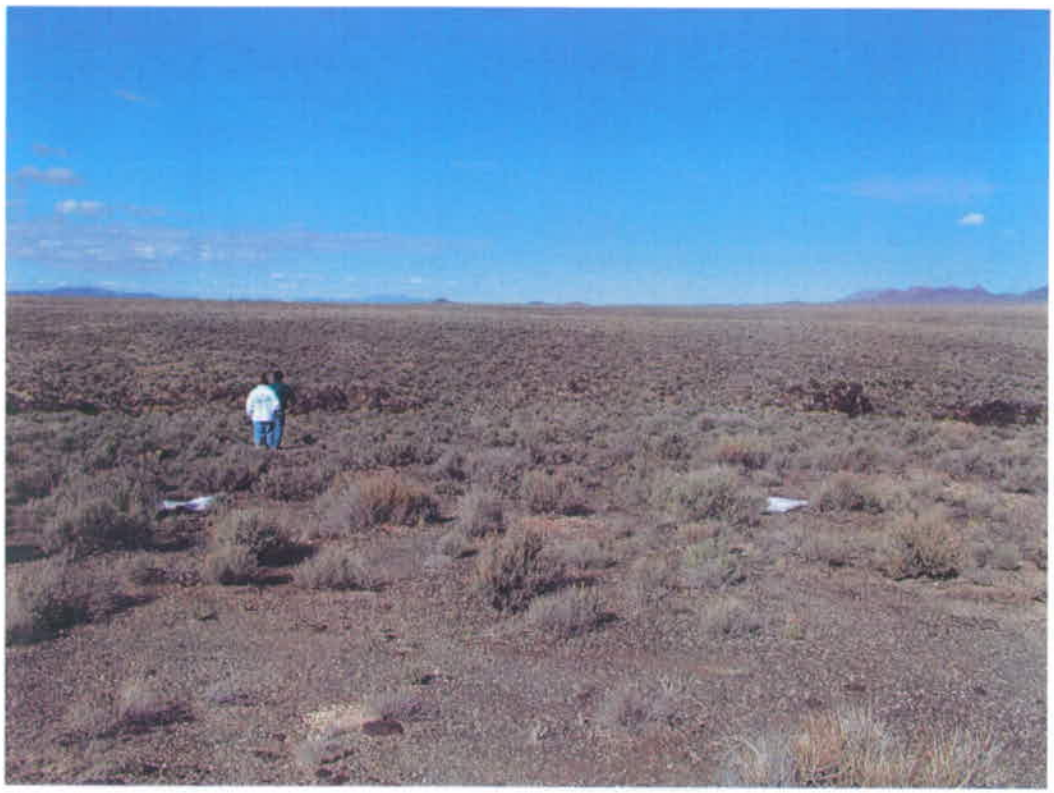


Photo 40. Site of box canyon with petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

PUBLIC INTEREST ISSUES IN REVEILLE ALLOTMENT - Archeological

Photo 41. Box canyon with petroglyphs on "west alternative" route of Caliente Route through Railroad Valley. See also photo below.

Photo 42. Box canyon with petroglyphs on "west alternative" route on Caliente Route through Railroad Valley. See also photo above.

PUBLIC INTEREST ISSUES IN REVEILLE ALLOTMENT - Archeological

Photo 43. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

Photo 44. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

Photo 45. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

Photo 46. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

QuickTime™ and a
Photo - JPEG decompressor
are needed to see this picture.

Photo 47. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

Photo 48. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

Photo 49. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

Photo 50. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

Photo 51. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

Photo 52. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

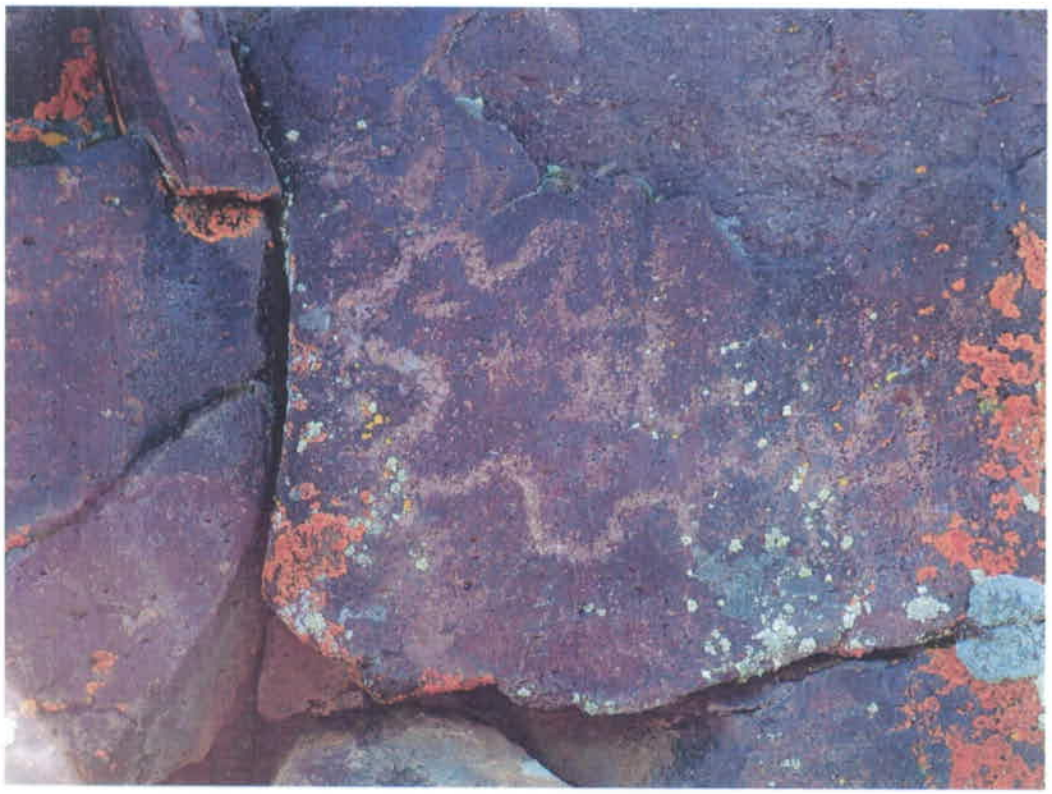


Photo 53. Petroglyphs on "west alternative" route on Caliente Route through Railroad Valley.

Photo 54. 'Deep Well Pass", on eastern Allotment boundary. Area of pink rocks had Native American cave occupation, and entire pass is a large archeological area. View east.

Photo 55. 'Deep Well Pass", on eastern Allotment boundary. Area of pink rocks had Native American cave occupation, and entire pass is a large archeological area. View NE.

Photo 56. 'Deep Well Pass", on eastern Allotment boundary. Area of pink rocks had Native American cave occupation, and entire pass is a large archeological area. View N.

Photo 57. 'Deep Well Pass", on eastern Allotment boundary. Area of pink rocks had Native American cave occupation, and entire pass is a large archeological area. View N.

Photo 58. 'Deep Well Pass", on eastern Allotment boundary. Area of pink rocks had Native American cave occupation, and entire pass is a large archeological area. View NW.

Photo 59. 'Deep Well Pass", on eastern Allotment boundary. Area of pink rocks had Native American cave occupation, and entire pass is a large archeological area. View west.

PUBLIC INTEREST ISSUES IN REVEILLE ALLOTMENT - Wilderness/WSAs

QuickTime™ and a
Photo - JPEG decompressor
are needed to see this picture.

1

Photo 60. Boundary of Reveille Wilderness Study Area, at edge of main road through Railroad Valley. Reveille Mountains in background. See also photos on following page.

Photo 61. Same view as previous photo, taken from edge of road.

Photo 62

PUBLIC INTEREST ISSUES IN REVEILLE ALLOTMENT - Public Safety

Photo 63. Cow Canyon, on Caliente Route in Reveille Valley, Reveille Allotment. View south.

Photo 64. Cow Canyon, on Caliente Route in Reveille Valley, Reveille Allotment. View west.

Photo 65. Cow Canyon, on Caliente Route in Reveille Valley, Reveille Allotment. View east.

PUBLIC INTEREST ISSUES IN REVEILLE ALLOTMENT - Public Safety

Photo 66. View east from Warm Springs Summit, into Reveille Allotment, Reveille Valley. Note narrow canyon and proximity to State Highway 6.

Photo 67. Warm Springs wash, east of Warm Springs Summit, Reveille Valley, Reveille Allotment. View west, toward summit.

PUBLIC INTEREST ISSUES IN REVEILLE ALLOTMENT - Public Safety

Photo 68. Warm Springs wash, east of Warm Springs Summit, Reveille Valley, Reveille Allotment. A portion of State Highway 6 washed out by flashfloods in the recent past.

Photo 69. Warm Springs wash, east of Warm Springs Summit, Reveille Valley, Reveille Allotment. Photo shows a portion of washout by flashfloods in the recent past.

FALLINI EXHIBIT 4

The BLM Land Use Plan excerpts are found in Appendix A, Tonopah Resource Management Plan and Record of Decision.

FALLINI EXHIBIT 5

Wildlife Species and Special-status Plant Species

APPENDIX D
WILDLIFE SPECIES THAT MAY OCCUR WITHIN THE REVEILLE ALLOTMENT

Mammals

mule deer (*Odocoileus hemionus*)
American pronghorn antelope (*Antiliocapra americana*)
desert bighorn sheep (*Ovis canadensis* var. *nelsoni*)
coyote (*Canis latrans*)
bobcat (*Felis rufus*)
mountain lion (*Felis concolor*)
kit fox (*Vulpes macrotis*)
badger (*Taxidea taxus*)
little brown myotis (*Myotis lucifungus*)
spotted bat (*Euderma maculatum*)*
small-footed myotis (*Myotis ciliolabrum*)*
long-eared myotis (*Myotis evotis*)*
fringed myotis (*Myotis thysanodes*)*
long-legged myotis (*Myotis volans*)*
Yuma myotis (*Myotis yumanensis*)*
Pale Townsend's big-eared bat (*Plecotus townsendii* var. *pallescens*)*
silver-haired bat (*Lasionycterts noctivagans*)
Western pipistrelle (*Pipistrellus hesperus*)
big brown bat (*Eptesicus fuscus*)
hoary bat (*Lasiurus cinereus*)
pallid bat (*Antrozous pallidus*)
Brazilian free-tailed bat (*Tadarida brasiliensis*)
pygmy rabbit (*Brachylagus idahoensis*)*
Nuttall's cottontail (*Sylivilagus nuttallii*)
desert cottontail (*Sylivilagus audubonii*)
black-tailed jackrabbit (*Lepus californicus*)
white-tailed antelope squirrel (*Ammospermophilus leucurus*)
Townsend's ground squirrel (*Spermophilus townsendii*)
Botta's pocket gopher (*Thomomys bottae*)
Great Basin pocket mouse (*Perognathus parvus*)
dark kangaroo mouse (*Microdipodops megacephalus*)
chisel-toothed kangaroo rat (*Dipodomys microps*)
Merriam's kangaroo rat (*Dipodomys merriami*)
Merriam's shrew (*Sorex merriami*)
Western harvest mouse (*Reithrodontomys megalotis*)
deer mouse (*Peromyscus maniculatus*)
canyon mouse (*Peromyscus crinitus*)
Pinon mouse (*Peromyscus truei*)
Northern grasshopper mouse (*Onychomys leucogaster*)

(mammals continued)

desert woodrat (*Neotoma lepida*)
sagebrush vole (*Lagurus curtatus*)
Norway rat (*Rattus norvegicus*)
house mouse (*Mus musculus*)

Reptiles

zebra-tailed lizard (*Callisaurus draconoides*)
desert collared lizard (*Crotaphytus insularis*)
long-nosed leopard lizard (*Gambelia wislizenii*)
Great Basin fence lizard (*Sceloporus occidentalis biseriatus*)
Northern desert horned lizard (*Phrynosoma platyrhinos* var. *platyrhinos*)
Great Basin skink (*Eumeces skiltonianus* var. *utahensis*)
Great Basin whiptail (*Cnemidophorus tigris* var. *tigris*)
coachwhip (*Masticophis flagellum*)
Great Basin gopher snake (*Pituophis melanoleucus* var. *deserticola*)
Western long-nosed snake (*Rhinocheilus lecontei* var. *lecontei*)
wandering garter snake (*Thamnophis elegans* var. *vagrans*)
desert night snake (*Hypsiglena torquata*)
Great Basin rattlesnake (*Crotalus viridis* var. *lutosus*)

Fish and Amphibians

Hot Creek tui chub (*Gila bicolor* spp.)*
Western toad (*Bufo boreas*)
Great Basin spadefoot (*Scaphiopus intermontanus*)

Waterfowl

Canada geese (*Branta canadensis*)
mallard (*Anas platyrhynchos*)
Northern pintail (*Anas acuta*)
Gadwall (*Anas strepera*)
cinnamon teal (*Anas cyanoptera*)
green-winged teal (*Anas crecca*)
American wigeon (*Anas americana*)
Northern shoveler (*Anas clypeata*)
ruddy duck (*Oxyura jamaicensis*)
redhead (*Aythya americana*)
canvasback (*Aythya valisineria*)

(waterfowl continued)

common goldeneye (*Bucephala clangula*)
bufflehead (*Bucephala albeola*)
American coot (*Fulica americana*)
eared grebe (*Podiceps nigricollis*)
pied-billed grebe (*Podilymbus podiceps*)

Shorebirds and Wading Birds

white-faced ibis (*Plegadis chihi*)*
black-necked stilt (*Himantopus mexicanus*)
American avocet (*Recurvirostra americana*)
snowy plover (*Charadrius alexandrinus*)
Wilson's phalarope (*Palaropus tricolor*)
red-necked phalarope (*Phalaropus lobatus*)
willet (*Catoptrophorus semipalmatus*)
killdeer (*Charadrius vociferus*)
herring gull (*Larus argentatus*)
California gull (Larus californicus)
spotted sandpiper (*Actitis macularia*)
snowy egret (*Egretta thula*)
black-crowned night heron (*Nycticorax nycticorax*)
black tern (*Chlidonias niger*)*
least bittern (*Ixobrychus exilis hesperis*)*

Raptors

red-tailed hawk (*Buteo jamaicensis*)
golden eagle (*Aquila chrysaetos*)
Northern harrier (*Circus cyaneus*)
rough-legged hawk (*Buteo lagopus*)
Cooper's hawk (*Accipiter cooperii*)
sharp-shinned hawk (*Accipiter striatus*)
Northern goshawk (*Accipiter gentilis*)*
ferruginous hawk (*Buteo regalis*)*
prairie falcon (*Falco mexicanus*)
American kestrel (*Falco sparverius*)
Western burrowing owl (*Athene cunicularia* var. *hypugea*)*
Barn owl (*Tyto alba*)
great horned owl (*Bubo virginianus*)

Other birds

pinyon jay (*Gymnorhinus cyanocephalus*)
scrub jay (*Aphelocoma coerulescens*)
American crow (*Corvus brachyrhynchos*)
common raven (*Corvus corax*)
sage sparrow (*Amphispiza belli*)
black-throated sparrow (*Amphispiza bilineata*)
horned lark (*Eremophila alpestris*)
loggerhead shrike (*Lanius ludovicianus*)*
mourning dove (*Zenaida macroura*)
chuckar (*Alectoris chukar*)
marsh wren (*Cistothorus palustris*)
yellow-headed blackbird (*Xanthocephalus xanthocephalus*)
common nighthawk (*Chordeiles minor*)
vireo species
wabler species
sparrow species
finch species
flycatcher species

note: * Nevada BLM Sensitive Species

United States Department of the Interior

FISH AND WILDLIFE SERVICE
RENO FISH AND WILDLIFE OFFICE
4600 KIETZKE LANE, SUITE 125C
RENO, NEVADA 89502-5055

RECEIVED
DEC - 4 1997
TONOPAH FIELD STATION

December 1, 1997
File No. 1-5-98-SP-022

Memorandum

To: Field Station Manager, Bureau of Land Management, Tonopah Field Station, Tonopah, Nevada, (Attn: Lance Brown)

From: Field Supervisor, Reno Fish and Wildlife Office, Reno, Nevada

Subject: Species List for the Reveille Allotment, Nye County, Nevada

This responds to your letter received November 6, 1997, requesting a list of endangered and threatened species which may be present in the Reveille Allotment area. To the best of our knowledge, there are no proposed, candidate, or listed threatened or endangered species within the allotment. This list fulfills the requirement of the Fish and Wildlife Service to provide information on listed species pursuant to section 7(c) of the Endangered Species Act of 1973, as amended.

For your consideration, Attachment A contains a list of other species of concern to the Service that may occur in the allotment. The Service has used information from the State and other private interests to assess the conservation needs and status of these species. Further biological research and field study are needed to resolve their conservation status. One potential benefit of considering these other species of concern is that by exploring alternatives early in the planning process, it may be possible to provide long-term conservation benefits for these species and avoid future conflicts that could otherwise develop. We recommend that you contact the Nevada Natural Heritage Program [1550 East College Parkway, Suite 145, Carson City, Nevada 89710, (702) 687-4245] and the appropriate regional office of the Nevada Division of Wildlife, as well as other local, State, and Federal agencies for data on distribution and conservation needs for these and other species of concern.

The Service is interested in any impacts the project may have on wetlands and streams in the area. Some activities may require discharge of material into wetlands or waters of the United States. Such discharge is regulated by the Army Corps of Engineers pursuant to section 404 of the Clean Water Act. We recommend you contact the Army Corps of Engineers' Reno Field Office [300 Booth Street, Room 2120, Reno, Nevada 89509 (702) 784-5304], regarding the possible need for a permit.

Certain activities may also require the removal of vegetation within the allotment. Destruction of bird nests and/or their contents may result if these actions are conducted during the avian breeding season. Such destruction may be a violation of the Federal Migratory Bird Treaty Act. We recommend that either vegetation removal be done outside the avian breeding season, or that surveys be conducted prior to brush removal to ensure that nests are not harmed or that activities do not result in nest failures.

In future correspondence concerning this species list, please reference File No. 1-5-98-SP-022. If you have any questions, please contact Stephanie Byers at (702) 784-5227.

For Robert D. Williams

Attachment

Nevada Natural Heritage Program

Department of Conservation and Natural Resources
1550 East College Parkway, Suite 145 * Carson City, Nevada 89706-7921
(702) 687-4245

27 February 1998

RECEIVED
MAR - 2 1998
TONOPAH FIELD STATION

Lance Brown
Bureau of Land Management
Tonopah Field Station
PO Box 911
Tonopah, NV 89049

Dear Mr. Brown:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or sensitive plant and animal taxa recorded within or near the Reveille Allotment. We searched our data base and maps for the following:

Township 1 - 6N	Range 49 - 54E	Section all
Township 1 - 2S	Range 49 - 54E	Section all

The enclosed printout lists the taxa recorded within or near the given area. We do not have complete data on various raptors that may also occur in the area; for more information contact Gary Herron, Nevada Division of Wildlife at (702) 688-1500. Note that all cacti, yuccas, and Christmas trees are protected by Nevada state law (NRS 527.060-.120), including species not tracked by this office.

Please note that our data are dependent on the research and observations of many individuals and organizations, and in most cases are not the result of comprehensive or site-specific field surveys. Natural Heritage reports should never be regarded as final statements on the taxa or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

For further information on particular taxa, you may contact our zoologist, Glenn Clemmer, or our botanist, Jim Morefield.

Thank you for checking with our program. Please contact us for additional information or further assistance.

Sincerely,

Kim Goodwin
Data Manager

SENSITIVE PLANT AND ANIMAL TAXA RECORDED WITHIN OR NEAR THE REVEILLE ALLOTMENT

Compiled by Nevada Natural Heritage Program for Lance Brown, BLM, Tonopah Field Station

27 February 1998

SCIENTIFIC NAME	COMMON NAME	USFWS	BLM	USFS	STATE	GRANK	TOWNRANGE	SECTION	LAT	LONG	FREQ	LAST OBSERVED
Astragalus callichrix	Calloway milkvetch					G1	006N051E	21,22	3821558N	11613538W	M	1981-05-24
Astragalus serenoi var sordescens	squalid milkvetch					G4T2	002N054E	02	3805578N	11553134W	S	1981-06-09
Astragalus serenoi var sordescens	squalid milkvetch					G4T2	006N054E	06	3824123N	11554181W	M	1980-07-02
Castilleja magellanica	Cane Spring owlclup	<C2	N			G2	012N050E	27	3744007N	11622018W	M	1977-09-23
Corynorhinus townsendii	Townsend's big-eared bat	<C2	N	S		G4	001N049E	22	3756578N	11622827W	S	1953-06-10
Corynorhinus townsendii	Townsend's big-eared bat	<C2	N	S		G4	002N051E				S	1961-04-03
Crenichthys nevadae	Railroad Valley springfish	LT	S	T	YES	G2	016N051W	28	3821423N	11641410W	O	
Cymopterus ripleyi var saniculoides	sanicle biscuitroot	<C1	N			G1G2T2	006N051E	21	3824135N	11614031W	M	1978-05-24
Gila bicolor ssp	Hot Creek Valley tui chub	<C2	N		YES	G4T1	005N051E	16	3814437N	11611278W	S	
Gila bicolor ssp	Hot Creek Valley tui chub	<C2	N		YES	G4T1	004N051E	13	3812034N	11610300W	S	1983-07-29
Gilia nyensis	Nye gilia					G3?	006N051E	15	3822233N	11613388W	M	1978-06-26
Myotis evotis	long-eared myotis	<C2	N			G5	006N049E	16	3823128N	11620917W	M	PRE-1965
Myotis evotis	long-eared myotis	<C2	N			G5	001N049E	22	3756578N	11620827W	S	1952-06-10
Myotis evotis	long-eared myotis	<C2	N			G5	002N051E	16	3748284N	11617288W	S	1952-06-15
Myotis volans	long-legged myotis	<C2	N			G5	001N049E	22	3756578N	11620827W	S	1952-06-14
Myotis volans	long-legged myotis	<C2	N			G5	006N049E	15	3822108N	11620917W	M	PRE-1965
Myotis volans	long-legged myotis	<C2	N			G5	002N051E	16	3746234N	11617288W	S	1952-06-15
Penstemon pudicus	bashful beardtongue	<C2	N			G1	002N041E	33	3758300N	11610015W	S	1978-06-07
Penstemon pudicus	bashful beardtongue	<C2	N			G1	001N050E	08	3755400N	11624500W	S	1980-07-02
Penstemon pudicus	bashful beardtongue	<C2	N			G1	001N050E	07	3756500N	11625235W	S	1970-06-15
Polyctenium williamsiae	Williams combleaf	<C1	S		CE	G1	002N049E	24	3800000N	11617844W	S	1991-07-03
Polyctenium williamsiae	Williams combleaf	<C1	S		CE	G1	002N049E	26	3800630N	11617115W	S	1992-07-03
Sclerocactus blainei	Blaine pincushion	<C2	N		CY	G1Q	006N051E				S	1980-06-04
Sclerocactus blainei	Blaine pincushion	<C2	N		CY	G1Q	004N051E				O	1980-06-04
Sclerocactus nyensis	Tonopah fishhook cactus	<	N		CY	G1Q	002N050E	01	3801117N	11620231W	O	1981-05-16

U. S. Fish and Wildlife Service (USFWS) Categories for Listing under the Endangered Species Act:

LT	Listed Threatened - likely to be classified as Endangered in the foreseeable future if present trends continue
<C1	Former Category 1 Candidate, now species of concern
<C2	Former Category 2 Candidate, now species of concern

Bureau of Land Management (BLM) Species Classification:

S	Nevada Special Status Species - USFWS listed, proposed or candidate for listing, or protected by Nevada state law
N	Nevada Special Status Species - designated Sensitive by State Office

United States Forest Service (USFS) Species Classification:

S	Region 4 (Humboldt-Toiyabe) sensitive species
T	USFWS listed Threatened

Nevada State Protected (STATE) Species Classification:

Fauna:

YES	Species protected under NRS 501.

Flora:

CE	Critically endangered - species threatened with extinction, whose survival requires assistance because of overexploitation, disease or other factors or because their habitat is threatened with destruction, drastic modification or severe curtailment (NRS 527.260-.300)
CY	Protected as a cactus, yucca, or Christmas tree (NRS 527.060-.120)

Precision (PREC) of Mapped Occurrence:

Precision, or radius of uncertainty around latitude/longitude coordinates:

S	Seconds: within a three-second radius
M	Minutes: within a one-minute radius, approximately 2 km or 1.5 miles.
G	General: within about 8 km or 5 miles, or to map quadrangle or place name

Nevada Natural Heritage Program Global (GRANK) Element Ranks for Threats and/or Vulnerability:

G	Global rank indicator, based on worldwide distribution at the species level
T	Global trinomial rank indicator, based on worldwide distribution at the infraspecific level
S	State rank indicator, based on distribution within Nevada at the lowest taxonomic level
1	Critically imperiled due to extreme rarity, imminent threats, or biological factors
2	Imperiled due to rarity or other demonstrable factors
3	Rare and local throughout its range, or with very restricted range, or otherwise vulnerable to extinction
4	Apparently secure, though frequently quite rare in parts of its range, especially at its periphery
5	Demonstrably secure, though frequently quite rare in parts of its range, especially at its periphery
A	Accidental
E	Exotic or introduced
H	Of historical occurrence, not now known but could be rediscovered
P	Potential
Q	Taxonomic status uncertain
U	Unknown
X	Believed extinct or extirpated within Nevada
?	Assigned rank uncertain

FALLINI EXHIBIT 6

Humboldt Sun Article

Memo to File

Reference TOC 7/27/05, TOC for Final Rail Corridor EIS References;

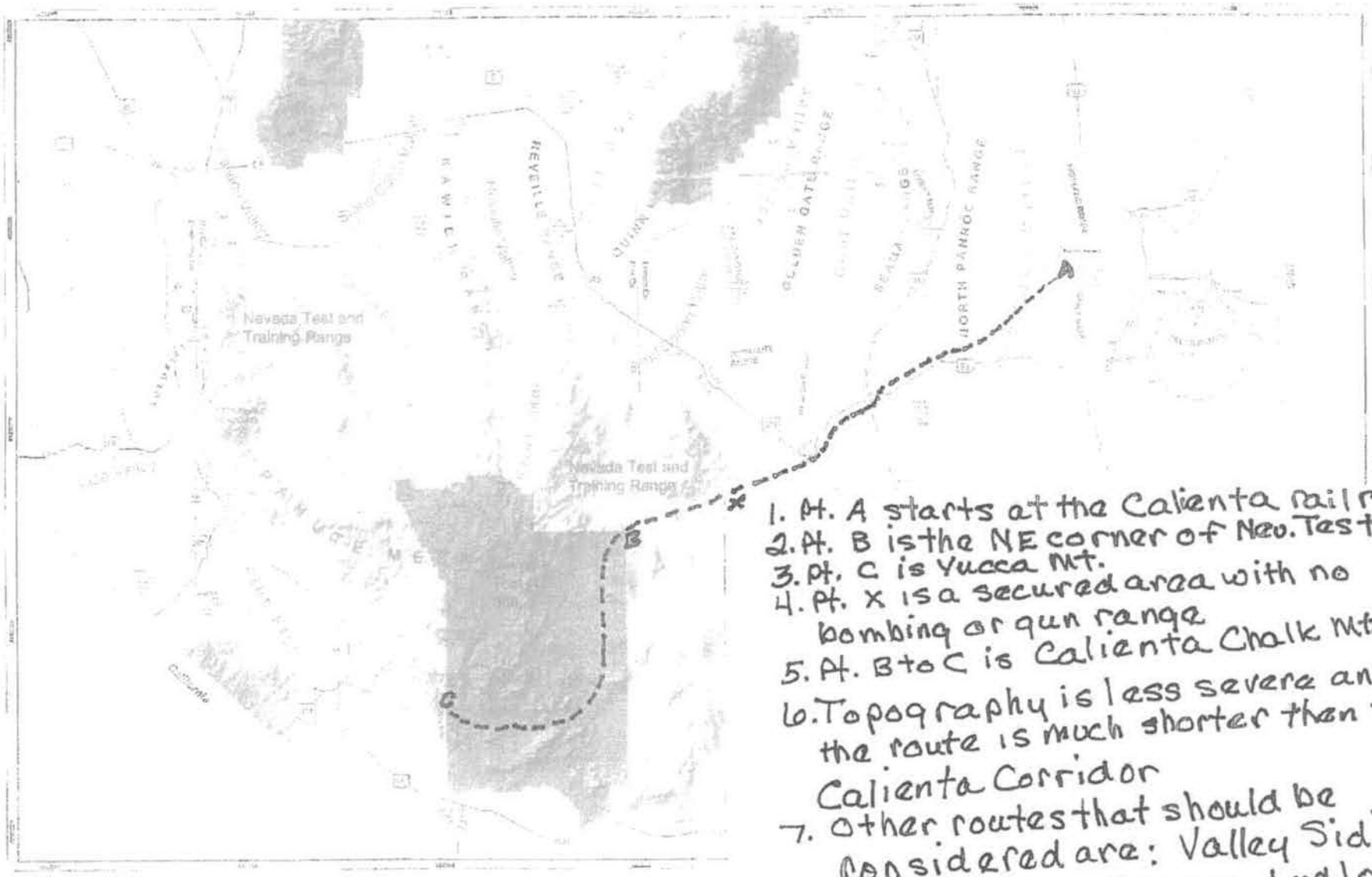
Included in MOL.20050726.0387, Proposed Yucca Mountain Corridor, Affected Grazing Permittees

The Humboldt Sun, "NDOW releases winter wildlife update", Feb 18-21, 2005

FALLINI EXHIBIT 7

Description of Alternate Routes

Twin Springs Ranch gested rail route



1. Pt. A starts at the Calienta rail rt.
2. Pt. B is the NE corner of Nev. Test Si
3. Pt. C is Yucca Mt.
4. Pt. X is a secured area with no bombing or gun range
5. Pt. B to C is Calienta Chalk Mt. Pt
6. Topography is less severe and the route is much shorter than th Calienta Corridor
7. Other routes that should be considered are: Valley Siding Arden, Jean, Cruero, Ludlow and Dike. * see maps

WHEREAS, the provision of the Constitution, with reference to federal jurisdiction and the power over lands within the different states, is found in Article I, Section 8, paragraph 17:

"To exercise exclusive legislation in all cases whatsoever, over such district, (not exceeding ten miles square) as may by cession of particular states, and the acceptance of Congress become the seat of Government of the United States, and to exercise like authority over all places purchased, by the consent of the legislature of the state in which the same shall be, for the erection of forts, magazines, arsenal, dockyards, and other needful buildings. And to make all laws which shall be necessary and proper for carrying into execution the foregoing powers and all other powers vested by this Constitution in the Government of the United States or in any department of office thereof."; and

3.1 DESCRIPTION OF OPTIONS

OPTION 1 - VALLEY

As shown on Figure 3-1, this option would begin at the Valley Siding of the Union Pacific Railroad about 6 miles northeast of Las Vegas. This siding was selected as an alternative to the Dike Siding, Option 10, discussed in the EA (DOE, 1988), because the land adjacent to Dike Siding is withdrawn from public use for the Nellis Air Force Base.

From the Valley Siding, the option would run northerly, away from Las Vegas, for approximately 4 miles and would turn west to skirt the Floyd Lamb State Park, the Nellis Bombing and Gunnery Range, and the Quail Springs Wilderness Study Area (Figure 3-2). The proposed option would cross over U.S. Highway 95 on an elevated structure about 13 miles west of Valley Siding. The route would continue west for about 3 to 4 miles to pass a Paiute Indian reservation before turning north and crossing over or under Kyle Canyon Road (Nevada Highway 157). The irregular pattern of privately and publicly owned land along this westerly portion of the route would require acquisition of private land currently under development.

Valley Siding option would proceed north on the south side of U.S. Highway 95. The route would run close to U.S. Highway 95 where it approaches the Desert View Nature Area to minimize visual impacts. North of the Desert View Nature Area, the option would continue on the south side of U.S. Highway 95. The route around Indian Springs would rise northwesterly across the slope to pass behind the first row of hills south of Indian Springs, returning to U.S. Highway 95 about 15 miles west of Indian Springs. This option would negotiate more rugged terrain than is found on the north side of U.S. Highway 95 to avoid conflict with Nellis Bombing and Gunnery Range, the U.S. Air Force Indian Springs Auxiliary Field and the town of Indian Springs.

An identified alternative, alternative 1A, shown in Figure 3-1, would cross through the mountains south of Indian Springs to provide a separation of over 6 miles from the runway at Indian Springs Auxiliary Field. Alternative 1A would add over 20 miles of additional

track length in mountainous terrain. The increased length adds both significant capital cost increases ($41 million), and potential railroad operational problems due to the additional rise and fall and track curvature.

For the remainder of the route along U.S. Highway 95, the Valley option would cross over to the north side of U.S. Highway 95 and passes within 1.25 miles of the end of the Desert Rock Air Strip runway. The option would enter the site by bridging over Fortymile Wash. The counties that could be impacted by the selection of this route are Clark and Nye counties.

Total track length for the Valley option is 99 miles. Major engineering features for the route include a bridge over Fortymile Wash, and a total of three grade separations of which two are major structures over U.S. Highway 95.

The Valley option discussed here could significantly change if the Quail Springs and Nellis Wilderness Study Areas (WSAs) are not designated as wilderness areas by Congress. At this time, the President is required to report his recommendations for wilderness areas to Congress by October 1993. These recommendations will be based on recommendations of the Secretary of the Interior. The Bureau of Land Management (BLM) has not recommended either the Quail Springs or the Nellis WSA's for wilderness area status (DOI, 1988). However, until the Presidential recommendations are made and Congress acts on these recommendations, the BLM is required to maintain the WSA's suitability for wilderness as a designation. Hence, no new right-of-ways could be issued.

OPTION 2 - ARDEN

As illustrated in Figure 3-3, this option would begin close to the end of the UP spur, approximately 8 track miles northwest of the Arden siding. The track would proceed northerly through the eastern edge of the hills to the west of Las Vegas, curving, to avoid as much as possible, the areas likely to be utilized for future urban expansion. However, there would be unavoidable conflicts with private lands slated for future development. At its closest point, the track would pass within 5 miles of the Red Rock Canyon Recreation Area. The counties that could be impacted by the selection of this route are Clark and Nye counties.

The option would cross three minor roads, including the access road to the recreation area and Nevada Highway 157. Traffic volumes are anticipated to be low enough (an average daily traffic count below 2,000 vehicles) to permit automatic-gate protection instead of requiring grade separations on at least two of the three crossings. This alignment would merge with Alignment 1 just north of Nevada Highway 157 for a total length of 99 miles. If a grade separation was required for Nevada Highway 157, the option would have a total of two grade separations, including a major structure over U.S. Highway 95, and a major bridge across Fortymile Wash.

OPTION 3 - JEAN

As shown in Figure 3-4, this option would begin near Jean, along the Union Pacific (UP) mainline, about 20 miles southwest of Arden Siding. The track would cross U.S. Interstate 15 via a grade separation about 1 mile south of the Jean Landing Strip. West of U.S. Interstate 15, the track would turn toward the northwest and then run parallel to Nevada Highway 161 about 1 mile to the south, passing about 1 mile south of the town of Goodsprings. The track would reach the maximum 2.5 percent grade while ascending the Spring Mountains.

North of the crest, the option would negotiate a cross slope of about 13 percent, requiring significant earth and drainage work on the steep cross slope. As illustrated in Figure 3-4, the track for the Jean option would follow the eastern slope of the Pahrump Valley northwesterly along the Nevada-California border. It would pass to the southwest of the town of Pahrump. Toward the north end of the Pahrump Valley, the track would cross Nevada Highway 372, a secondary road, via a grade separation.

At the end of Pahrump Valley, the option would cross through a ridge of hills into the Stewart Valley dry lake. Depending on the degree of cross slope on the eastern side of the Pahrump and Stewart Valleys, some special provision for drainage may have to be made, such as ditches on the uphill side of the track to divert storm water sheet flow into culverts under the roadbed. This option would continue northwesterly for approximately 16 miles before turning northerly toward the site. The Jean option would pass approximately 6 miles south of Devil's Hole, an isolated portion of Death Valley National Monument, and within 2 miles of the community of Ash Meadows.

The Jean option would proceed northerly across the Ash Meadows basin, ascending a gradient of less than 2 percent before crossing over U.S. Highway 95 some 13 miles to the north. The Jean option would join the Valley option (described previously) about 10 miles north of Lathrop Wells (Amargosa Valley). The counties that are potentially impacted by the selection of this route are Clark and Nye counties.

From beginning to end, the Jean option would cover 121 track miles, making it 22 miles longer than the alignments beginning closer to Las Vegas. The route would require one minor and two major grade separations and the bridge over Fortymile Wash.

OPTION 4 - CRUCERO

This Option begins at the Union Pacific tracks in the vicinity of Crucero, California (Figure 3-5). Because the Fort Soda area, which was traversed by the original Tonopah and Tidewater (T&T) Railroad trackage in the early 1900s, has been designated as an Area of Critical Environmental Concern (ACEC) by the Bureau of Land Management, the proposed alignment would climb northerly through the Soda Mountains west of Fort Soda and closely follow the alignment of U.S. Interstate 15 easterly through the hills. Depending on the drainage in the area of U.S. Interstate 15, a bridge or levees and a culvert could be required to channel storm water run-off.

Once through this area, this option would swing northerly and cross over U.S. Interstate 15 on a skew-grade separation about 3 miles to the north. The tracks would then ascend northwesterly through the Soda Mountains, away from the Silver Lake area, approaching a 2.5 percent maximum grade, and then reversing back to the northeast and descending into the Silurian Valley and crossing Route 127 via a grade separation about 3 miles north of Silver Lake.

From this point, this option would follow the old T&T grade northerly past the Silurian Hills. The proposed route is primarily level, following the 1,000-ft elevation contour line. At the foot of the Silurian Hills, about 8 miles to the north, this route would depart from the T&T grade to climb northerly over the Aljean and Alexander Hills into the California Valley, reaching a maximum gradient of 2.5 percent. The proposed route would skirt the eastern edge of the Nopah Range and continue through the northern end of the Pahrump Valley and on to a junction with the route of Option 3 in the Stewart Valley. Route 178 would be crossed via

a grade separation. The junction of the Pahrump and Stewart Valleys contains a dry lake bed and wash that would have to be skirted and/or perhaps crossed to proceed into Nevada. The counties in Nevada that could be impacted by use of this route are Clark and Nye counties.

The Crucero option is a total of 147 track miles long. It would have four grade separations with highways, the most major being with U.S. Interstate 15. Additionally, this option would require a bridge over Fortymile Wash.

OPTION 5 - LUDLOW

The Ludlow option is identical with the Crucero route, north of Crucero. The addition is a connection running from the Santa Fe (SF) tracks around Ludlow northerly across the 25 miles of desert to Crucero (Figure 3-5). The trackage would closely parallel the old T&T route and would not present any unique engineering problems. The only additional structures required are bridges over U.S. Interstate 40 to the west of Ludlow and over the Union Pacific (UP) tracks in the vicinity of Crucero. The total length of this option would be 170 track miles. It would have six grade separations with highways, plus the bridge over Fortymile Wash. The counties in Nevada potentially impacted by use of this option are Clark and Nye counties.

OPTION 10 - DIKE

This option originally identified in the Environmental Assessment for the Yucca Mountain site (DOE, 1986), is approximately 100 miles in length and originates off the Union Pacific Railroad mainline approximately 11 miles northeast of Las Vegas. From this siding, the route heads east-northeast for approximately 10 miles where it bears to the NE, skirting the Las Vegas and Sheep Ranges. This alignment would pass through the Nellis Air Force Base and the Quail Springs Study Area. From that point the option closely parallels the alignment of U.S. 95 to Indian Springs where it passes through the Indian Springs Air Force Auxiliary Field. The option continues west of Indian Springs a few miles where it diverges from U.S. 95 and heads toward Mercury and on to the Yucca Mountain site (Figure 3-12). The counties potentially impacted by this option are Clark and Nye counties.

Lincoln Co: -ty Option - Route A

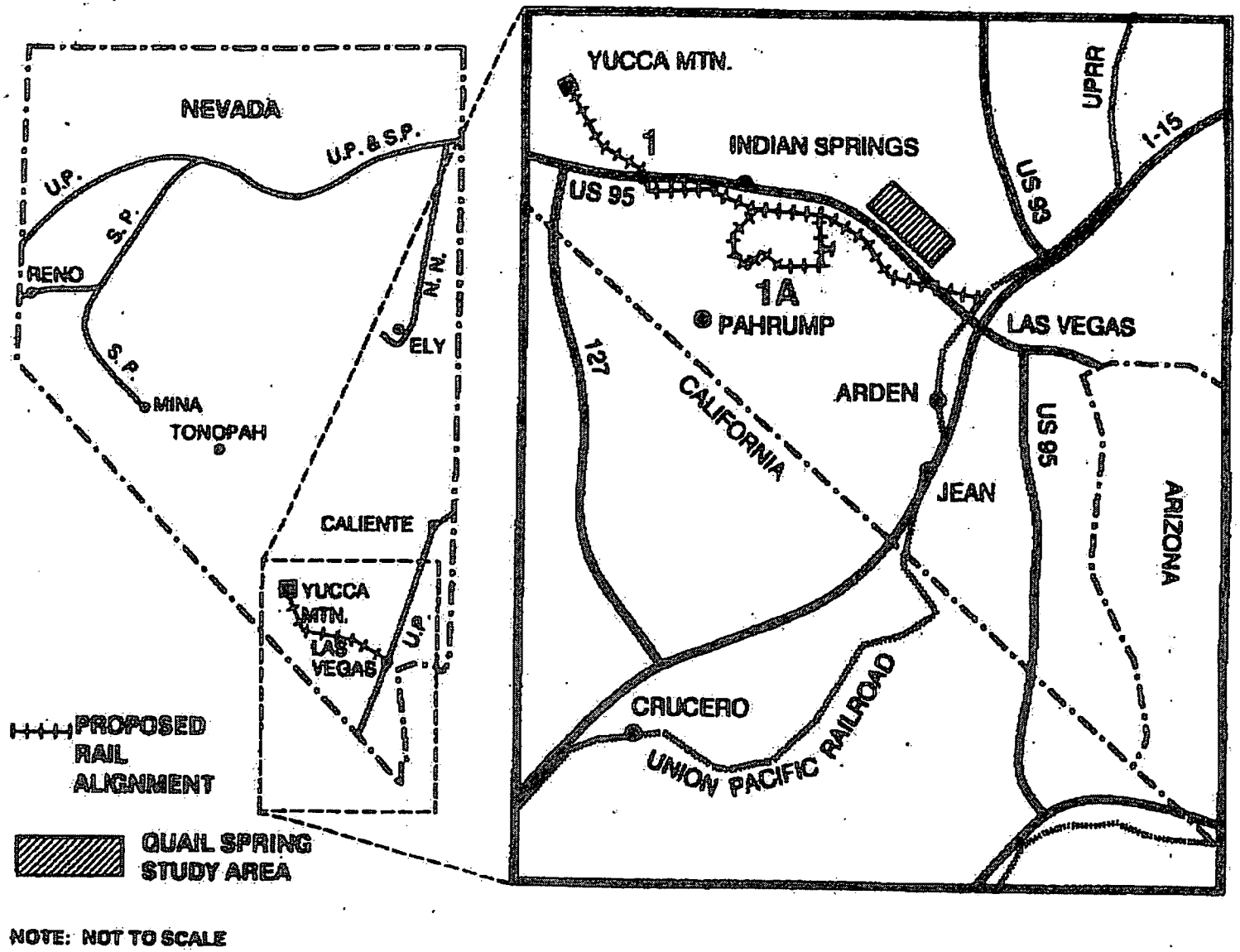
The 206 mile Alternative Route A begins in Caliente, Nevada, and heads north to Pioche on the abandoned Union Pacific Railroad right-of-way. The line continues up Lake Valley to Bristol Wells and turns westerly down through Dry Lake Valley south of Burnt Peak to cross Nevada Highway 318. The line continues to Timber Mountain Pass then descends into Coal Valley through Water Gap, into Garden Valley, then into San Spring Valley. The line then runs southwest to Chalk Mountain crossing Nevada Highway 375 and going into Nellis Air Force Range. The line continues down Emigrant Valley around the toe of Rhyolite Hills to Groom Pass. From Groom Pass, the line descends to Yucca Flats then up along Mine Mountain into Mid Valley, then westerly to Yucca Mountain.

Lincoln County Option - Route B

The 203 mile Alternative Route B begins at Crestline, heads up Sheep Spring Draw, then descends just east of Panaca Hills in Meadow Valley and connects to Route A just north of Condor Canyon. From here it follows Route A.

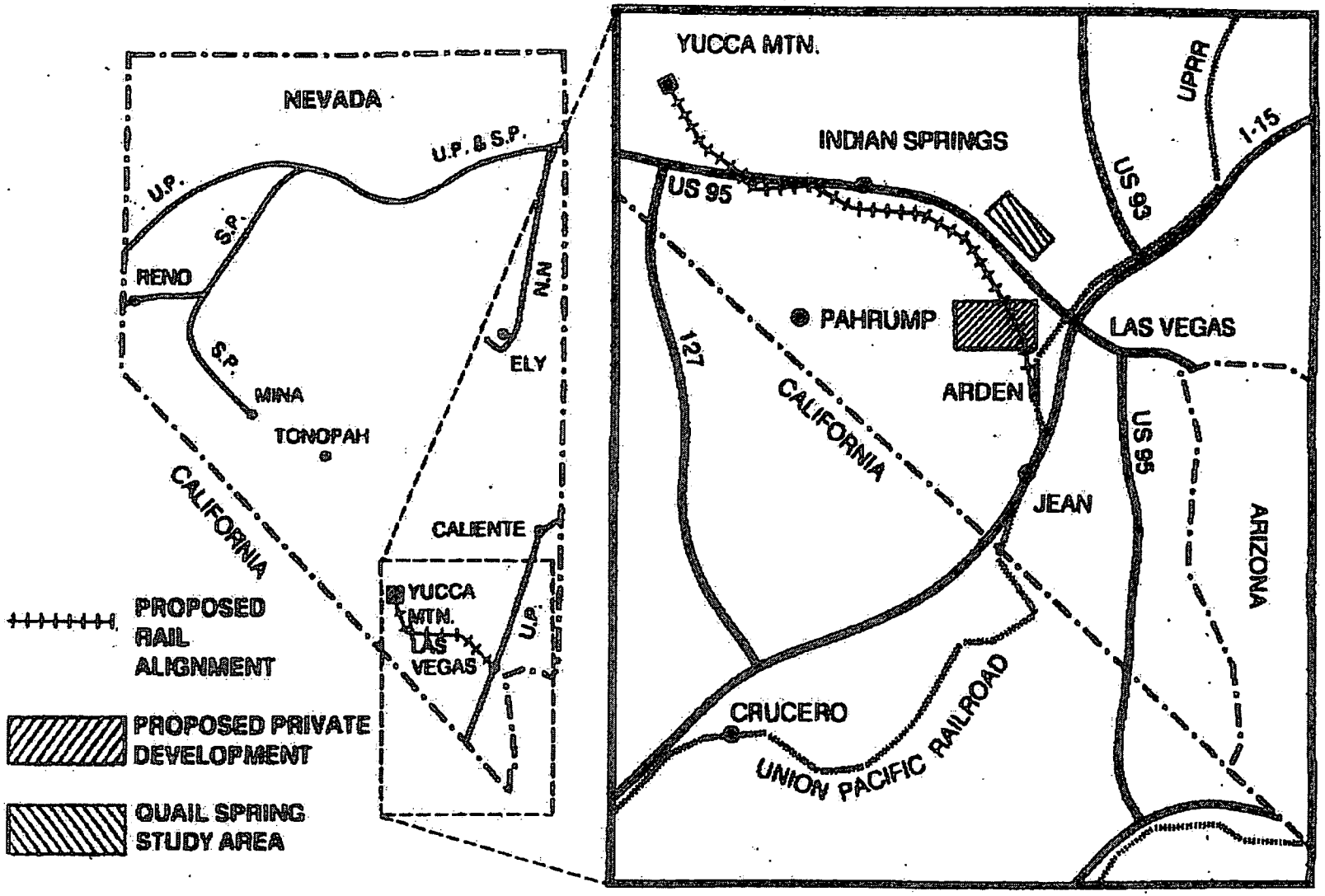
Lincoln County Option - Route C

The 116 mile Alternative Route C begins west of Caliente at Elgin, Nevada. The line climbs out of Meadow Valley Wash and follows Kane Spring Valley and Coyote Spring Valley to U.S. Highway 93, then parallels Highway 93 north to Lower Pahranagat Lake. The line then climbs southwest up through Sheep Range into Desert National Wildlife Refuge passing Desert Lake on the east side. The line continues south, crossing into Clark County and heads southwestern just east of Banded Ridge. The line continues downhill in a southwesterly direction and ends near U.S. Highway 95.



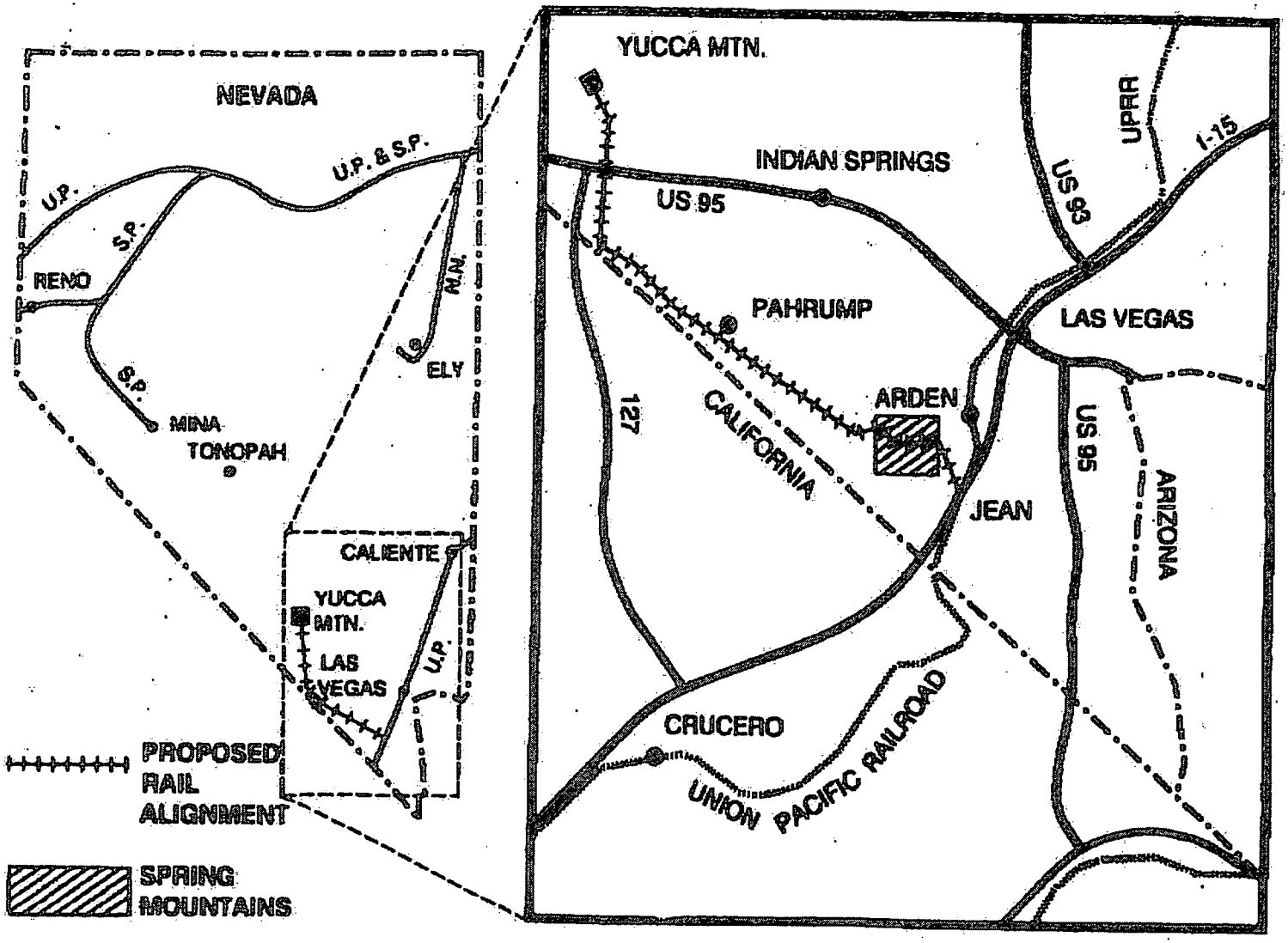
NOTE: NOT TO SCALE

Figure 3-1. Option 1: Valley.



ARDEN

Figure 2-2. Option 2: Arden



NOTE: NOT TO SCALE

Figure 3-4. Option 3: Jean.

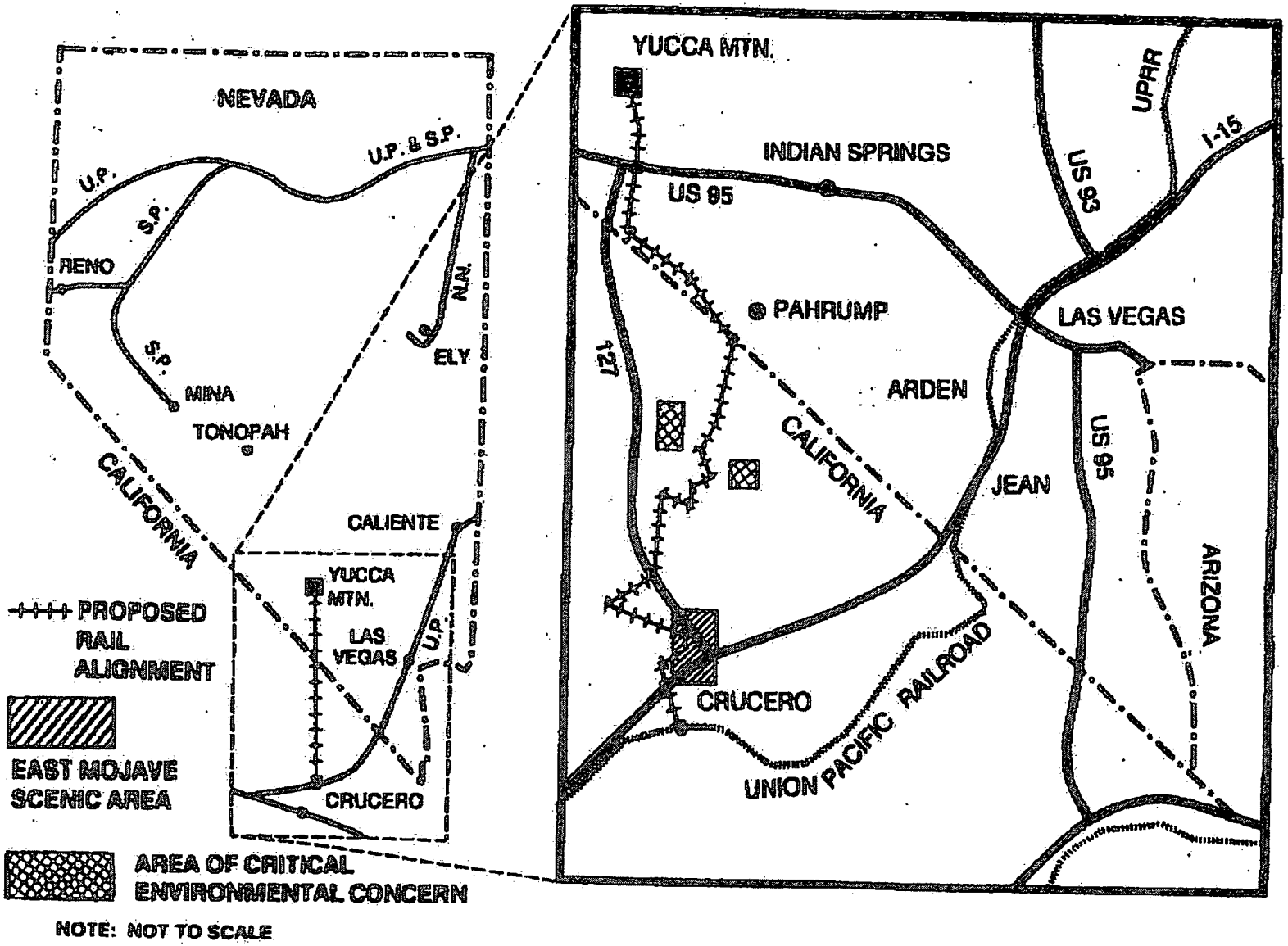


Figure 3-5. Option 4: Crucero.

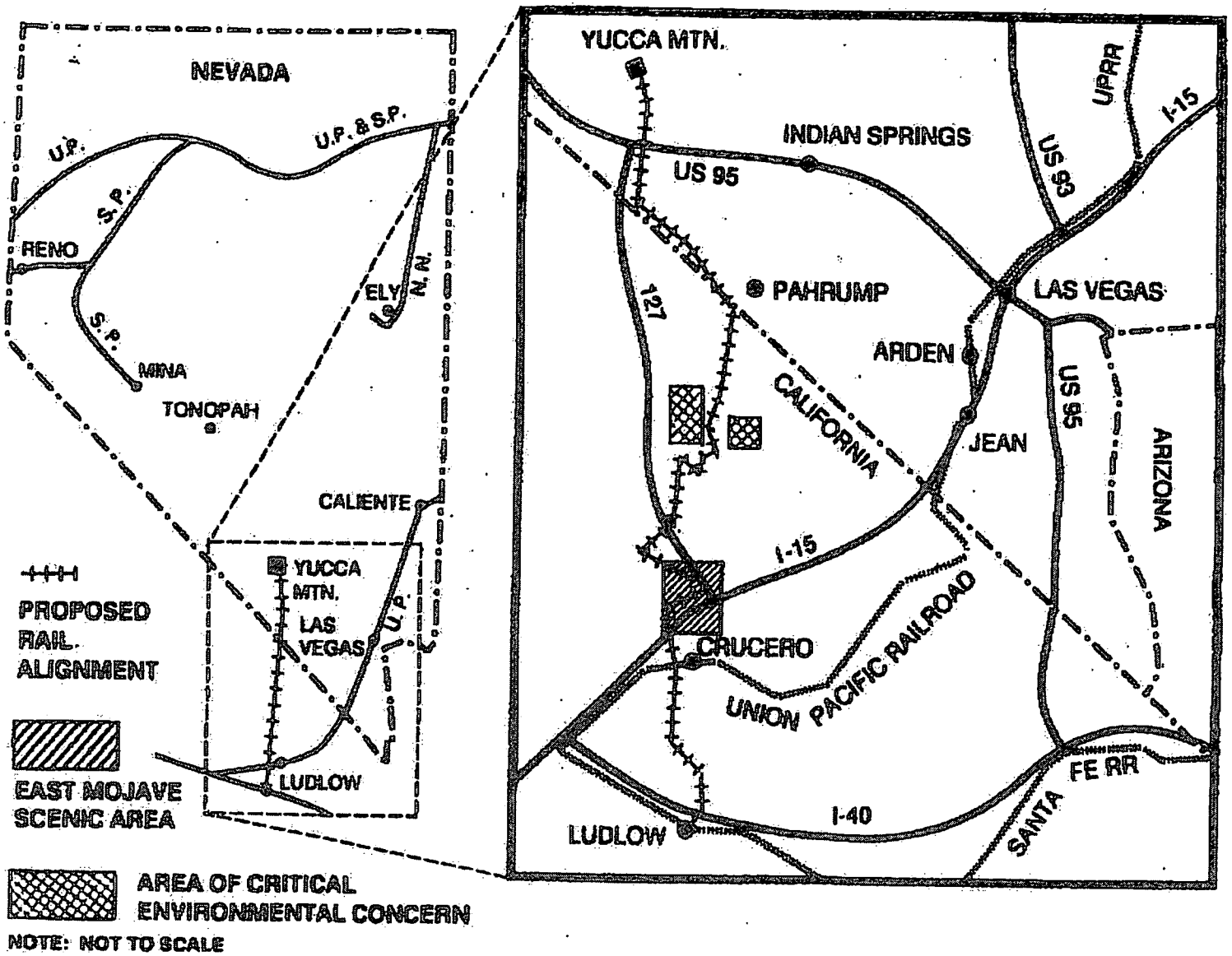


Figure 3-6. Option 5: Ludlow.

FALLINI EXHIBIT 8

March 11, 2004 Letter to Robin Sweeney, DOE

March 11. 2004

RECEIVED
MAR 11 2005
RESOURCE CONCEPTS, INC.

Twin Springs Ranch
HC 76 Box 1100
Tonopah, NV. 89049

Office of National Transportation
OCRWM
US Department of Energy
1551 Hillshire Dr., M-S F 011
Las Vegas, NV. 89134

Subject: Caliente rail corridor

To Ms. Robin Sweeney,

On January 3, 2004, upon receiving the mail, we were astounded to read in the Tonopah Times Bonanza that the Caliente route was preferred for the Yucca Mountain Rail Route.

We were then flabbergasted to find that the decision making regarding the preferred rail route was made after a six month comment process.
It included over twenty-one public hearings in which DOE received over 12900 comments.

Using the internet, we then pulled up the Federal Register Environmental Document: December 29, 2003 (Volume 68, Number 248) [Pages 74965-74968]. There we found that the Department Of Energy was requesting a withdrawal from surface entry and mining for a period of 20 years to evaluate the land for potential construction, operation, and maintenance of a branch rail line for the transportation of spent nuclear fuel and high level radioactive waste in the event the nuclear regulatory commission authorizes a repository at Yucca Mountain.

In order to understand the relevant land and water rights on the Twin Springs Ranch, a history of the Twin Springs Ranch is given as follows.

The Twin Springs Ranch is located 60 mile east of Tonopah, NV. It consists of water developments, land holdings, grazing rights, and a large number of purchases throughout the years. The Twin Springs Ranch, known as the Reveille Allotment, contains 663,000 acres. This includes the Southern part of hot creek Valley, The Southern tip of the Pancake Range, all Reveille Valley, the Southern portion of Railroad Valley, the Bellehelen area which is located in a small eastern portion of the Stone Cabin Valley, and the headquarters of the Twin Springs Ranch which is located in Nye County Nevada 60 miles east of Tonopah at Twin Springs. The Twin Springs Ranch commenced with the land, water, and grazing ownerships interests of G. B. Fallini in the 1860's, before the existence of the Bureau of Land Management.

The Twin Springs Ranch was acquired as follows: 1. G. B. Fallini and Sons (R. A. Fallini, E. W. Fallini, J. B. Fallini Sr.) purchased part of the Five Mile and Eden Creek Ranch rights on October 17, 1928, from Elizabeth Barndt. 2. On April 15, 1930, G. B. Fallini and Sons purchased the Bellehelen Ranch from Minnie Peterson. 3. On October 10, 1933, the Fallini Brothers (R. A. Fallini, E. W. Fallini, J. B. Fallini Sr.) purchased the Reveille Mill range and water rights. 4. On March 31, 1937, the Twin Springs Ranch purchased the Herman Reischki water and land holdings in what is now the Reveille Allotment. 5. On April 17, 1937, the Twin Springs Ranch purchases the Alvenea Reischki water and land holdings in what is now the Reveille Allotment. 6. On December 20, 1937, the Twin Springs Ranch purchased the Black Springs and its range rights, and the what is now the Fallini Well area range rights from the United Cattle and Packing Company. 7. On December 20, 1937, the Twin Springs Ranch purchased the Echo Canyon and Twin Springs holdings with their respective range and water rights from the United Cattle and Packing Company. 8. On August 12, 1938, the Twin Springs Ranch purchased the remaining Cedar Springs and Sumner Springs, with the respective range and water rights from the United Cattle and Packing Company. 9. On November 29, 1939, the Twin Springs Ranch purchased the Fred's Well and Pyramid Spring, with the respective range and water rights fro the United Cattle and Packing Company. 10. On August 24,1942, the Twin Springs Ranch purchased the East Side well and Ed's well, with the respective water and range rights from the United Cattle and Packing Company. 11. On September 1, 1943, the Twin Springs Ranch purchased the Buck's Water and Ned's Cache water developments with the respective range and water rights from the United Cattle and Packing Company. 12. On September 21, 1943, the Fallini Brothers purchased Ethel Argoni's (Original G. B. Fallini) 1/6 interest in what is now the Reveille Allotment. 13. On August 7,1947, Joe B. Fallini Sr., and R. A. Fallini purchased the Warm Springs with the respective range and water rights form Johnson & Johnson. 14. On August 14,1947, Joe B. Fallini Sr., E. W. Fallini, and R. A. Fallini purchased the Consteant Venner's ¼ interest in what is now the Reveille Allotment. 15. On July 7, 1954, Joe B. Fallini Sr. purchased Walter Sinclair Hyde's range and water rights in the Hyde's Estate on what is now the Reveille Allotment. 16. On November 2, 1964, Joe B. Fallini Sr. purchased, from Elma Hartland and her son, John Carter, their portion of a 1/6 interest in the Reveille Allotment for $35,000. 17. On November 2, 1964, Joe B. Fallini Sr. purchased ½ of the Warm Springs water and range rights from Elma Hartland for $50,000, giving Joe B. Fallini Sr. complete ownership of Warm Springs including its range and water rights. 18. On November 23,1964, Joe B. Fallini Sr. purchased Marie Hollingsworth's (original G. B. Fallini) 1/6 interest in the Reveille Allotment. 19. On June 14,1964, Joe B. Fallini Sr. completed a homestead I the Warm Springs area. 20. On October 25,1968, Joe B. Fallini Sr., and Helen Fallini purchased the range and water rights of Virginia Fallini-McCuin, Eleanor Fallini-Titus, and Mildred Fallini in the Reveille Allotment for $240,000. 21. On November 25,1969, Joe B. Fallini Sr. and Helen Fallini purchased Mildred Fallini-Lorigan's (original G. B. Fallini) 1/6 interest in the Reveille Allotment.

On June 5, 1979, Joe B. Fallini Sr. died. The ranch appraisal for his portion of the estate was valued at $1,155,000. $90,400 was the Twin Springs Ranch component, $550.000

was the Range Improvement component, and $514,600 was the BLM grazing privileges component. The taxes and interest on Joe B. Fallini Sr.'s estate cost the Twin Springs Ranch $437,019.81. This did not include the cost of appraisal, attorney fees, and accountant fees which totaled approximately $150,000.

On April 29, 1989, Helen Fallini died. The Ranch appraisal for her portion of the estate was valued at $1,500,000. $149,000 was the Twin Springs Ranch component, and $169,000 was the range improvement component; $1,182,000 was the BLM grazing privilege component. The taxes and interest on Helen Fallini's estate cost the Twin Springs Ranch $270,168.80. This again did not include the cost of appraisal, attorney fees, and account fees which totaled approximately $100,000.

On March 17,1992, the IRS requested collateral in form of a bond or lean to allow the estate to continue with the IRC 6166 election to pay the estate tax in installment payments. It took the Twin Springs Ranch 14 years to pay the estate tax, interest, and related costs described above. This clearly shows that the Federal Government recognizes a value on water improvements and grazing rights, dispelling the common belief by the BLM and the DOE that we do not have ownership rights on the Twin Springs Ranch.

When the Reveille "Allotment" was created in the 1950s, it was created under a water base allotment. This meant the Twin Springs Ranch must own and control all of the water rights for commensability. This is in contrast to the more common land based allotment.

On May 19, 1976, the BLM attempted to retire 25,730 AUM's on the Reveille Allotment for a proposed wild horse range. If this proposal had been successful the BLM would have acquired all private lands and waters on the Reveille allotment with the exception of the business site lands in the Warm Springs area, patented mining claims, and the DLEs.

In the late 1980's the BLM informed the Twin Springs Ranch that if the Twin Springs Ranch would produce a map labeling all of the ranch water developments, the water developments would be recognized as private waters belonging to the Twin Springs Ranch. The Twin Springs Ranch developed the map at a cost of over $60,000. After submitting the map to the BLM, the Twin Springs Ranch repeatedly inquired why the BLM had not recognized these waters as belonging to the Twin Springs Ranch. No response was made to these inquiries. On September 15, 1993, the Twin Springs Ranch received notification from the State Water Engineer's office informing the Twin Springs Ranch that the BLM had filed 111 (PWR 107) water applications (R 06050 – R 06161). In 1991 additional filings were recorded as had happened in 1979. The Twin Springs Ranch later found out that the BLM applications had been made using the very map that the Twin Springs Ranch had created for the BLM with the promise that the BLM would recognize the waters as privately owned by the Twin Springs Ranch.

Fallini et al. vs. Hodel et al. 783 F2 1342 (9th Cir. 1986); Fallini et al. vs. Hodel et al., R-85-535BRT, USDC, NV. Finding #43, Nov. 28,1986, established that the Twin Springs

Ranch owns, and the BLM is collaterally estopped to deny that the Twin Springs Ranch owns water rights to all known waters within the Reveille Allotment.

After plotting the withdrawal for the rail route on the Twin Springs Ranch, we found that it encompasses 130 sections, approximately 78,080 acres on the Reveille Allotment, as well as many of our privately owned water establishments. Following is a list of those water establishments accompanied by the development cost of each: Ned's Cache Pipeline ($62,332.00), Queen City Reservoir Tank & Trough ($6,100.00), Cedar Pipeline Extension ($9,615.18), Cedar Pipeline ($27,911.27), Sumner Springs ($41,604.40), Willow Witch Well ($21,241.99), Volcano Pond, George's Water to Witch Well Pipeline ($22,019.21), George's Water Pipeline ($48,056.94), Five Mile Spring and Pipeline ($13,799.51), Reveille Mill Extension Pipeline ($12,097.44), Charlie's Well Pipeline ($31,315.35), Black Springs ($22,039.00). The totals of all the costs listed above were incurred 100% by the Twin Springs Ranch. Not one penny of it was paid by the government.

At this time the Twin Springs Ranch is hereby requesting answers, from both DOE and BLM, to the following question:

1. During the decision making process regarding the preferred rail route, over 21 public hearings were held. Why was the Twin Springs Ranch, clearly an affected party, never notified or invited to these public hearings?

2. At this time are any routes other than the Caliente route still being considered?

3. If other routes are being considered, why hasn't land withdraws for those routes been proposed?

4. Why was the Caliente corridor selected as the preferred route over the Valley Modified corridor which is 220 miles shorter than the Caliente route or the Jean Corridor which is 207 miles shorter than the Caliente Route?

5. When was the BLM first notified of the proposed land withdrawal?

6. Why was the Twin Springs Ranch not notified of the proposed land withdrawal?

7. Will the Railroad be fenced?

8. If so what distance form the railroad will the fence be placed?

9. Will underpasses be created to allow cattle and wildlife access to foliage and water on either side of the fence?

10. Who will be responsible for fence maintenance?

11. Will the Twin Springs Ranch be compensated for the loss of grazing within the fenced areas?

12. Will any AUM's be cancelled for any reason related to the rail route?

13. Will the airspace above the railroad be restricted or changed in any way?

14. Will vehicle crossings be established where all existing roads cross the rail route?

15. Considering the background describe earlier regarding the water rights on the Twin Springs Ranch, how does the DOE and the BLM plan to address the issue of the privately owned water establishments the rail route runs directly over or effects in any way including livestock access?

16. Who will hold the rights to the proposed 64 water wells along the Caliente corridor after development?

17. When the Twin Springs ranch was rebuilding and improving Black Springs, a spring in which the rail route runs directly over, huge development cost were incurred because of restrictions imposed, by the BLM, due to an archeological site. How are the BLM and DOE planning to address the issue of this specific archeological site?

18. How does the BLM and DOE plan to address the issue of the wilderness study areas the rail route will pass through on the Reveille and other allotments?

19. Using their current transportation methods, DOE has already safely shipped 70,000 metric tons of spent nuclear fuel and high level radioactive waste without incident. Why then is this rail route, which would cost the tax payers $880 million, necessary at all?

20. In the notice of the proposed Nevada public lands withdrawal, why is there a 20 year study period as opposed to a much shorter and reasonable period, for example 3 to 4 years?

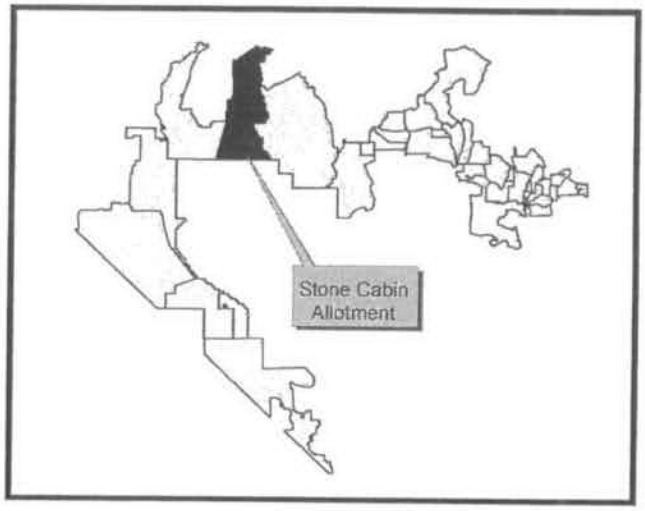
21. Is the BLM using the Nevada public land withdrawal to obtain water rights on the grazing allotments in which conflict between the livestock growers and the BLM has occurred? The above allotments include the Reveille Allotment, owned by the Fallini Family, the Stone Cabin Allotment, owned by the Clifford Family and Tom Colvin, the Ralston and the Silver King Allotments, own by the Hage Family, and the Montezuma Allotment, owned by the Colvin Family.

22. Regarding the Proposed Nevada public land withdrawal and specific to the Reveille Allotment, why are 130 sections equaling 78,080 acres being withdrawn rather than a one mile wide pass that would equal approximately 48 sections, or even less which is being done in other parts of the United States?

23. In a news article published in the Tonopah Times Bonanza, it was reported that Nye County was expecting $56 million in benefits over the next 5 years.
Where will that expected money be coming from and why?

cc. Congressman Tom Reynolds
Senator John Ensign
Mr. Robert R. Loux
Las Vegas Review Journal
Mr. Ed Landthrom
Mr. Bob Abby (BLM)
Tonopah Times Bonanza
Elko Daily Free Press

5.31 STONE CABIN ALLOTMENT



Base Property: Land

The following section of this document includes a separate report for each of the Permittees for the Stone Cabin Allotment: Roy Clifford of the Stone Cabin Partnership; and Colvin & Sons, LLC. The Clifford report was prepared by the Clifford family and RCI, and is presented in the RCI report format. The Colvin report was prepared for Colvin and Sons, LLC by Western Range Service of Elko, Nevada and is presented in their original format. The Western Range Service report does not necessarily agree with BLM policy, regulations, or law. The two permittees disagree on impacts and mitigation, thus the two separate reports were necessary to fully examine each Permittees concerns.

The Tonopah Resource Management Plan and Record of Decision (RMP) referred to in the Colvin report is included as Appendix A in this document. All other attachments to the reports are included as referenced in each respective report.

5.31a STONE CABIN ALLOTMENT – CLIFFORD REPORT

Permittee: Stone Cabin Partnership
Contact: Roy Clifford
Address: PO Box 648
Tonopah, NV 89049

5.31a.1 Existing Situation

Base Property: Land

The allotment is east of Tonopah along US Highway 6. The Kawich Range borders the east side of the allotment.

Table 5.31a.1 Stone Cabin (Clifford) Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	Private	Number/Type of Livestock	Season of Use	Total AUM	Miles	ROW Acres
391,735	4,509	166 cattle	3/01 – 2/28	1,992	Common Segment	
					28.39	710

Table 5.31a.2 Stone Cabin (Clifford) Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
1,990	1,165	3,155

GRAZING SYSTEM

Clifford has year long use of the allotment and grazes in common with Colvin in the winter. Cattle currently have access to the entire allotment with cattle movement being controlled by water and forage availability.

PASTURE DESIGN

The allotment boundary is fenced or controlled by natural barriers. There are no interior fences to control or inhibit cattle movement other than around the private property associated with the allotment.

STOCKWATERS

Stockwater is provided by a variety of systems including springs, wells, troughs, catch ponds and ditches.

WATER RIGHTS

The stock waters are all vested, certified, or permitted under Nevada State Water Law. As such, they constitute private property rights. All the watering troughs constitute authorized "points of diversion" under State Law.

ALLOTMENT HISTORY

The Stone Cabin Partnership came into being in 1870 and is still family owned and operated today. Since the Taylor Grazing Act, the operation has had numerous reductions in their Stone Cabin allotment cattle permit. In the 1960's the Stone Cabin allotment suffered a substantial reduction in their cattle permit. Stone Cabin then purchased sheep AUMs from Bertrand Arambel and Pete Echeverry and converted to cattle AUMs. The Caliente Rail Route would split this area. In the 1970's their horse AUMs were adjudicated to wild horse AUMs by the BLM and not to cattle. Later the Nevada Test Site fenced the boundary further reducing their traditional range without compensation. In the 1990's Stone Cabin Ranch took another 37% reduction, far more than our neighbor.

5.31a.2 Fencing Preference

Stone Cabin Partnership opposes fencing, as this would disrupt the current grazing system in place. The railroad will present problems that will take a great deal of time and effort to overcome without the added impacts of a fence dividing the allotment.

5.31a.3 Proposed Railroad Alignment

The proposed railroad would enter the allotment on the east side, just south of US Highway 6. From there it would continue southwest and exit the allotment at the southwest corner near the boundary of the Nevada Test Site. See Figure 5.31.1 for details.

5.31a.4 Impacts and Mitigation Without Fencing

Impacts and mitigation cannot be specifically determined until the centerline of the track is staked, and until the design is available showing the locations and the depth of cuts and fills. The depth of cuts and fills will have a big bearing on the degree of obstruction for livestock and vehicle movement.

IMPACTS TO VEGETATION AND FORAGE

Inside the 710 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

The Stone Cabin Partnership also requests that all wells developed in the allotment for construction purposes be deeded to the Partnership at the completion of the railroad, otherwise the wells shall be permanently capped off.

IMPACTS TO EXISTING FENCING

The railroad would pass through two fences where it enters and exits the allotment, which would allow cattle to cross into the adjacent allotments.

MITIGATION

Install two railroad and road cattleguards at points where the track crosses the existing fences and repair damaged fencing appropriately.

IMPACTS TO LIVESTOCK MOVEMENT

Even without fencing the railroads will present a barrier and interfere with cattle movement and grazing habits throughout the allotment. Direct impacts cannot be determined without knowing the depths of cuts and fills along the grade.

MITIGATION

Construct a cattle crossing approximately every mile between trail crossings not to exceed 25 percent grade. This will require about eighteen crossings to accommodate cattle movement throughout the allotment in the event that the proposed grade will be impassable to cattle. Provide four new wells in location along the railroad allowing cattle to utilize areas of the allotment and minimizing the need of having to cross the track for water.

IMPACTS TO STOCKWATERS

The proposed route will pass within four miles of four wells and five springs within the allotment. This will interfere with forage utilization and increase the potential of collision and livestock death loss.

MITIGATION

Provide four new wells in location along the railroad allowing cattle to utilize areas of the allotment and minimizing the need of having to cross the track for water.

IMPACTS TO ROADS AND TRAILS

The proposed track will cross twelve trails used for access and maintenance, interrupting travel through the allotment.

MITIGATION

Keep all trails functional by constructing twelve crossings not to exceed twelve percent grade.

IMPACTS TO LIVESTOCK FROM COLLISIONS

The train will pose a risk of death loss from collision in which Stone Cabin Partnership will not be responsible for any liabilities.

MITIGATION

Reimburse the Permittee for the full value of lost livestock due to collision. Provide four new wells in location along the railroad allowing cattle to utilize areas of the allotment and minimizing the need of having to cross the track for water.

IMPACTS TO OVERALL LIVESTOCK OPERATION

The proposed railroad will create disruption to the operation; time and expense will be required to cope with the disruption; forage and protective vegetative cover will be lost on and off the right-of-way; there will be impacts to valuable private property rights in the form of water rights under Nevada State Law.

MITIGATION

SCP requests that irrigable farmland with irrigation wells be deeded to them to compensate for damages. They request the farmland be selected from the BLM land in the Stone Cabin Allotment on a site with suitable soils, underground water availability, and the capability to

accommodate an undetermined number of irrigation pivots. They request that wells be drilled with sufficient capacity to service the pivots. The wells can be used for construction water during the railroad construction phase. SCP requests the opportunity to negotiate the number of pivots and accompanying land with DOE in order to arrive at a just and reasonable mitigation for the damages, disruption and losses incurred. The services and expertise of an Agricultural Economist are requested to assist with determination of value of farmland, and cost of damages, to serve as a basis for informed negotiation.

5.31a.5 Impacts and Mitigation With Fencing

IMPACTS TO VEGETATION AND FORAGE BASE

Impacts and mitigation to vegetation and forage are the same as detailed under the *Without Fencing* alternative, except that 100 percent of forage in the right-of-way will be permanently lost.

MITIGATION

Mitigation is the same as detailed under the *Without Fencing* alternative. Keep disturbance to a minimum.

IMPACTS TO EXISTING FENCE

Same as without fencing.

MITIGATION

Same as without fencing.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing will create a barrier and block cattle movement to either side of the track and disrupt the current grazing management system as mentioned in 5.32.2 Fencing Preference.

MITIGATION

Same as without fencing with the addition of gates at every cattle crossing on both right-of-way fences.

IMPACTS TO STOCKWATER

Same as without fencing for stockwater and livestock movement.

MITIGATION

Same as without fencing for stockwater and livestock movement.

IMPACTS TO ROADS AND TRAILS

Same as without fencing.

MITIGATION

Install cattle guards on both right-of-way fences where trail crossings are constructed. This will require 24 vehicle cattle guards.

IMPACTS TO LIVESTOCK FROM COLLISIONS

Fencing will eliminate most of the risk of death loss due to collisions with the train with the exception of cattle entering the ROW through the fence or gates left open.

MITIGATION

Same as without fencing. DOE will be responsible for maintenance and upkeep of fencing.

IMPACTS TO OVERALL LIVESTOCK OPERATION

Same as without fencing.

MITIGATION

Same as without fencing.

5.31a.6 Gold and Silver Mining Enterprise

The Clifford family owns the Historic Clifford Gold and Silver Mine. The railroad track runs close to the core of the mine and over the top of associated mining claims. This mine has been a real asset to the ranch through the years and possibly a future asset to the Clifford family and Nye County. The mine is currently leased and the lessee has an ongoing exploration program that looks promising. Over the years this mine has produced close to a million dollars in ore. The rail route would severely impact mining activities and would hurt the Clifford family. DOE should compensate the Clifford family for damages and value lost.

The Clifford Mine is located fifty miles east of Tonopah and one mile south of Highway 6, T3N R49E. See Figure 5.31.1. The mine was discovered in the early 1900's by Jim and Ed Clifford who did much of the early work. At one time well over 500 men worked there. There was a hotel, stores, and a post office, and at one time the Clifford Mining Co. sold stock certificates. The Clifford family has mined there since the discovery and it has been like money in the bank. The Clifford Mine is currently leased to Seabridge Gold, Inc. They are in the process of a $1.5 million exploration project. The property consists of 206 claims covering over 4,000 acres. Assays of ore samples show 4 oz. gold and 874 oz. silver. As the railroad would cross over the top of the 4,000 acres, mitigation would entail a crossing built over or under the track to accommodate large and heavy mining equipment and all other traffic associated with mining activity. Blasting of the hard rock in the vicinity of the railroad should be a concern. The lessee, Seabridge Gold Inc. issued a News Release about the Clifford Mine and associated activities February 10, 2004. The News Release is attached as Exhibit A.

5.31a.7 Alternate/Additional Mitigation

The Stone Cabin Partnership opposes building the Caliente Rail Route. There are several other routes that would have less impacts and cost the tax payers less, particularly a route that would cross the Nevada Test Site and would have better security.

The Stone Cabin Partnership request that they be given the opportunity to review the construction plans in the draft stage to give them opportunity to actively negotiate or have input into details that are difficult to foresee in advance.

The Stone Cabin Partnership requests that there be a nuclear emergency medical response team and facility located within the allotment to respond to any accidents.

Table 5.31a.3 Stone Cabin Allotment (Clifford) Impacted Features

Impacted Features	Common Segment
Stockwaters w/in 4 miles	23
Stockwaters w/in 1 mile	8
Fences (ea)	2
Roads (ea)	
Trails (ea)	12
Pipelines (ea)	
Other	

Table 5.31a.4 Stone Cabin Allotment (Clifford) Mitigation Project Comparison

Proposed Mitigation Units	Common Segment	
	Without Fencing	With Fencing
Fence (mi)		56.8
Gates (ea)	2	62
Railroad Cattleguards (ea)	2	2
Road Cattleguards (ea)	2	26
Road Crossings (ea)		
Trail Crossings (ea)	12	12
Cattle Crossings (ea)	18	18
Sheep Crossings (ea)		
Pipeline Construction (mi)		
Pipeline Crossings (ea)		
Unspecified Stockwaters		
Troughs (ea)	4	4
Wells (ea)	4	4
Springs (ea)		
Other		

CLIFFORD EXHIBIT A

Seabridge Gold, Inc. News Release

Seabridge Gold Inc.

News Release

FOR IMMEDIATE RELEASE
Trading Symbol: SEA.V

February 10, 2004

Seabridge's JV Partner Intersects Bonanza Structure at Clifford

Hole CL10-04 Features 10 Feet Averaging 1.73 Ounce Per Ton Gold

Toronto, Canada ... Seabridge Gold reported today that its joint venture partner, Castleworth Ventures, Inc., has successfully completed its initial round of exploration drilling at the Clifford project in Nye County, Nevada. The initial program consisted of 17 holes which were designed to test various targets on the property. To date, 11 of the first 14 holes encountered anomalous to high-grade gold mineralization. Assays are pending on the last 3 holes.

The highlight of the program thus far is hole CL10-04 which returned a 10 foot intercept of 1.73 ounce per ton ("opt") gold with 6.00 opt silver from 150 to 160 feet.

The geologic model for Clifford is a bonanza, epithermal vein system like those at the Ken Snyder and Sleeper mines as well as the nearby Midway deposit being developed by Newmont and Midway Gold. Hole CL10-04 appears to have intersected a structure compatible with this geologic model. This was the only hole to have intersected this structure which must now be followed up to determine its continuity along strike and at depth.

Castleworth plans to continue the program with additional drilling to offset this new discovery. An amendment to the current drill permit will be applied for immediately with drilling to commence after the completion and interpretation of the prospect which will include data from previous workings along with the current drill results.

The Clifford prospect, located near the center of the Clifford Project, is one of several shallow, high-grade targets on the property. The property consists of 206 claims bringing the total current property position to over 4,000 acres. The project is part of the Thunder Mountain Joint Venture between Castleworth and Pacific Intermountain Gold, a 75% owned subsidiary of Seabridge. Exploration activities at the Clifford project are being conducted under the supervision of William E. Threlkeld, Registered Professional Geologist, Senior Vice President of Seabridge and a Qualified Person as defined by National Instrument 43-101.

Castleworth can earn a 50% interest in the joint venture's Thunder Mountain and Clifford properties by (i) spending US$1.5 million in exploration and holding costs over a three year period and (ii) issuing 1.5 million of its common shares. At the completion of the earn-in, a joint venture will be formed with 50% held by Pacific Intermountain Gold and 50% held by Castleworth as the operator.

In addition to Clifford, five other of Seabridge's projects will be the subject of active exploration efforts during 2004. Seabridge itself will be conducting advanced exploration, including drilling, on its 100% owned Courageous Lake and Grassy Mountain properties. Romarco Minerals Inc. expects to begin drilling Seabridge's Hog Ranch project this month following completion of successful geophysical surveys during 2003. Quincy Resources Inc. is planning to proceed with a drill program on Seabridge's Quartz Mountain property in the 2nd quarter following detailed reinterpretation of past drilling results and

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geology. Noranda Inc. will conduct a summer field program on Seabridge's Kerr-Sulphurets property to follow-up successful reconnaissance work completed in the summer of 2003.

Seabridge has been designed to provide its shareholders maximum leverage to the price of gold. The Company has acquired a 100% interest in eight North American gold projects which collectively contain an estimated 8.74 million ounces of resources in the measured and indicated categories (250.1 million tonnes grading 1.09 grams of gold per tonne) plus an additional estimated 6.83 million ounces of resources in the inferred category (201.0 million tonnes grading 1.06 grams of gold per tonne). (See http://www.seabridgegold.net/gold_resources.htm for a breakdown of these gold resources by project). The Company continues to seek expansion of its gold resource base by acquisition of new projects and exploration programs largely funded by partners.

All resource estimates reported in this disclosure are calculated in accordance with the Canadian National Instrument 43-101 and the Canadian Institute of Mining and Metallurgy Classification system. These standards differ significantly from the requirements of the U.S. Securities and Exchange Commission.

Statements relating to the estimated or expected future production and operating results and costs and financial condition of Seabridge, planned work at the Company's projects and the expected results of such work are forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by words such as the following: expects, plans, anticipates, believes, intends, estimates, projects, assumes, potential and similar expressions. Forward-looking statements also include reference to events or conditions that will, would, may, could or should occur. Information concerning exploration results and mineral reserve and resource estimates may also be deemed to be forward-looking statements, as it constitutes a prediction of what might be found to be present when and if a project is actually developed. These forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable at the time they are made, are inherently subject to a variety of risks and uncertainties which could cause actual events or results to differ materially from those reflected in the forward-looking statements, including, without limitation: uncertainties related to raising sufficient financing to fund the planned work in a timely manner and on acceptable terms; changes in planned work resulting from logistical, technical or other factors; the possibility that results of work will not fulfill projections/expectations and realize the perceived potential of the Company's projects; uncertainties involved in the interpretation of drilling results and other tests and the estimation of gold reserves and resources; risk of accidents, equipment breakdowns and labour disputes or other unanticipated difficulties or interruptions; the possibility of environmental issues at the Company's projects; the possibility of cost overruns or unanticipated expenses in work programs; the need to obtain permits and comply with environmental laws and regulations and other government requirements; fluctuations in the price of gold and other risks and uncertainties, including those described in the Company's Annual Information Form filed with SEDAR (available at www.sedar.com) for the year ended December 31, 2002.

Forward-looking statements are based on the beliefs, estimates and opinions of the Company's management or its independent professional consultants on the date the statements are made. Seabridge undertakes no obligation to update these forward-looking statements if such beliefs, estimates or opinions or other factors should change.

ON BEHALF OF THE BOARD
"Rudi Fronk,"
President & C.E.O.

For further information please contact:
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Visit our website at www.seabridgegold.net Email: info@seabridgegold.net

The TSX-V Exchange has not reviewed and does not accept responsibility for the adequacy or accuracy of this release.

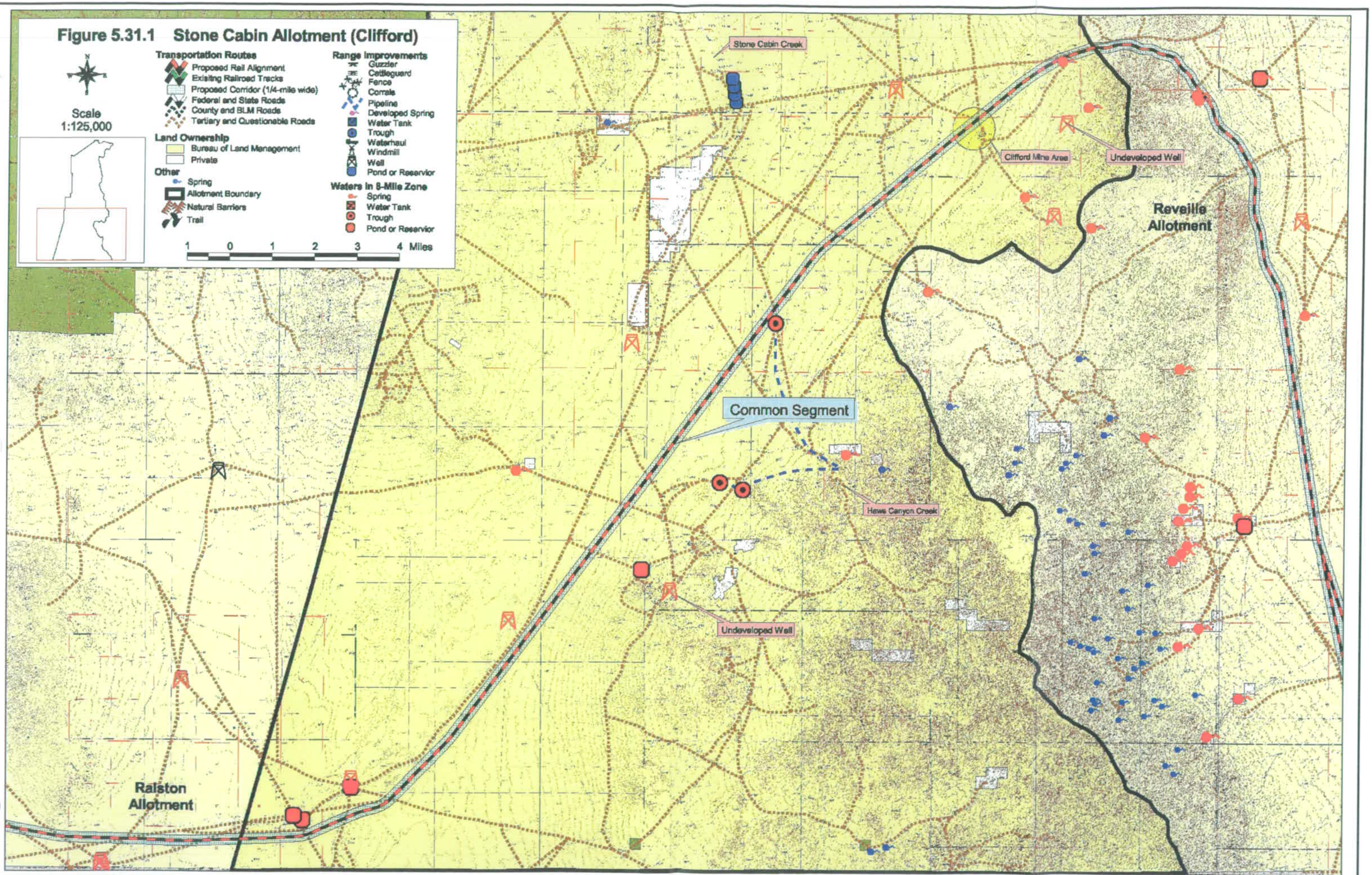
Figure 5.31.1 Stone Cabin Allotment (Clifford)
Scale
1:125,000
Transportation Routes
Proposed Rail Alignment
Existing Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
Waters in 8-Mile Zone
Spring
Water Tank
Trough
Pond or Reservior
1 0 1 2 3 4 Miles
Stone Cabin Creek
Clifford Mine Area
Undeveloped Well
Reveille Allotment
Common Segment
Hawe Canyon Creek
Undeveloped Well
Ralston Allotment

5.31b STONE CABIN ALLOTMENT – COLVIN REPORT

Permittee: Colvin & Son, LLC c/o Tom Colvin Jr.
Contact: Al Steninger
Address: P.O. Box 1330
Elko, NV 89803

The Colvin report for the Stone Cabin Allotment was prepared by Western Range Service of Elko, Nevada, with the exception of this page and the Impact and Mitigation summary tables at the end of this section, which were prepared by RCI.

Table 5.31b.1 Stone Cabin Allotment (Colvin) Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
391,735	4,509	2,067 cattle	3/01 – 5/15	5,165	Common Segment	
		20 cattle	5/16 – 11/15	121	28.39	710
		1,500 cattle	10/16 – 2/28	6,707		
				Total = 13,985		

Table 5.31b.2 Stone Cabin Allotment (Colvin) Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
11,973	417	12,390

GRAZING SYSTEM

Fall, winter, and spring grazing.

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Attachment A - Stewart Title Guaranty Company, Schedule A, Legal Description, and Plat Maps

Attachment B - Colvin & Son, LLC Offered BLM Base Property

Attachment C - BLM Grazing Permit, Colvin & Son, LLC

Attachment D - BLM Assignment of Range Improvements, Colvin & Son, LLC

Attachment E - Abstract of Active Rights, Colvin & Son, LLC Water Rights

Attachment F* - Approved, Tonopah Resource Management Plan* and Record of Decision, October 1997 (excerpts)

Attachment G - Map, Colvin & Son, LLC (mitigation scenarios for the Caliente Rail Route)

**Included as Appendix A at the end of this document.*

EXECUTIVE SUMMARY

These scoping comments relate specifically to the scope of a proposed Nevada railway within and adjacent to the Stone Cabin Allotment, and mitigation requirements for associated impacts which are to be analyzed by an "Environmental Impact Statement for the Alignment, Construction, and Operation of a Rail Line to a Geological Repository at Yucca Mountain, Nye County, NV" (hereinafter "Nevada Rail EIS"). See the Notice of Intent to Prepare such EIS dated April 2, 2004 published in 69 Fed.Reg. 18565-18569 (4/8/04). The Caliente Rail Route and alternative transportation options described by the February 2002 "Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada" (hereinafter "Yucca FEIS") were relied upon for the preparation of these comments.

Colvin & Son, LLC ("Colvin") opposes the Caliente Rail Route unless impacts to its interests and the interests of others within and around the Stone Cabin Allotment are adequately mitigated. The No Action Alternative proposed for evaluation under the Nevada Rail EIS requires the Department of Energy ("DOE") to analyze: 1) effects associated with a greater number of rail shipments using smaller casks; 2) effects associated with the transfer of radioactive material from large rail shipping casks into smaller shipping casks compatible with legal-weight trucks at intermodal transfer stations; or, 3) some combination of these actions. Colvin encourages reconsideration of the Yucca FEIS's "Valley Modified" rail route or alternative Nevada rail routes that would cross the Nellis Air Force Range and Nevada Test Site more or less due east from Yucca Mountain because they would be significantly shorter than the Caliente Rail Route.

WHEREAS: The DOE issued a Record of Decision selecting the Caliente Rail Route as the route by which to ship nuclear waste to the proposed Yucca Mountain Repository site, and said Caliente Rail Route would impact Colvin's private interests within the Stone Cabin Allotment and surrounding areas, including interests associated with private lands, grazing preferences, Nevada grazing rights, range improvements, federal grants, water rights, wildlife, recreation, aesthetics, cultural resources, wild horses, Wilderness Study Areas, monitoring investments, and mineral rights and mining;

WHEREAS: The Caliente Rail Route would alter multiple use relationships within the Stone Cabin Allotment and surrounding areas, thereby altering the current balance amongst land uses and impacting public interests with respect to federal agency (BLM) land use plan objectives and standard operating procedures related to watersheds, vegetation, visual resource management, wildlife habitat management, livestock grazing management, wild horses, lands, rights-of-way, utility corridors, recreation, Wilderness Study Areas, locatable minerals, and fire management;

WHEREAS: There are ongoing conflicts between domestic livestock and wild horses within the Stone Cabin Allotment and surrounding areas, and the Caliente Rail Route will exacerbate such conflicts without appropriate mitigation;

WHEREAS: Year-long grazing use by wild horses and another BLM grazing permittee's cattle has impacted resource conditions within the central portion of the Stone Cabin Allotment to the detriment of the Colvin ranch operation, and the Caliente Rail Route will exacerbate such year-long use without appropriate mitigation;

WHEREAS: The grazing preferences associated with the BLM Ralston and USFS McKinney Tanks Allotments are currently vacant;

and,

WHEREAS: Colvin has been the primary livestock grazing user within the southern portion of the otherwise vacant Ralston Allotment since November 1996 and was granted Temporary Non-Renewable BLM grazing authorizations within the Ralston Allotment during portions of 6 different calendar years thereafter.

THEREFORE: Colvin presents its Favored Mitigation scenario to adequately mitigate all of the impacts that would affect Colvin as a result of the Caliente Rail Route, which would leave Colvin with a functional ranching operation with a total grazing capacity at least as large as its current preference. Colvin's Favored Mitigation scenario would also effectively mitigate a wide array of public interests related to watersheds, vegetation, visual resource management, wildlife habitat, livestock grazing, wild horses, lands, rights-of-way, utility corridors, recreation, Wilderness Study Areas, locatable minerals, and fire management.

The Favored Mitigation scenario, including Common Mitigation Actions, would create a Kawich Unit southeast of the Caliente Rail Route that would be reserved for grazing only by wild horses and wildlife by excluding domestic livestock grazing. Excluding domestic livestock from the Kawich Unit would provide enough forage therein to satisfy the forage demand for the combined Appropriate Management Level ("AML") for wild horses in the Stone Cabin, Saulsbury, and Little Fish Lake Herd Management Areas ("HMAs") and the Little Fish Lake Wild Horse Territory, while continuing to satisfy existing wildlife demands. All wild horse use within the Stone Cabin HMA, both Saulsbury HMAs, and both Little Fish Lake wild horse areas would be moved into the Kawich Unit which would have an AML for 536 wild horses.

Creation of the Kawich Unit southeast of the Caliente Rail Route would be accomplished under the Favored Mitigation scenario by fencing the northwest side of the railway through the Stone Cabin Allotment to prevent livestock access, with the DOE constructing and maintaining said fence and holding Colvin harmless for any estray cattle that cross it. Public access to the Kawich Unit for other purposes would be provided across three surface crossings with cattle-guards.

In addition to the exclusive wild horse area, the Favored Mitigation scenario would create separate and exclusive livestock use areas ("Units") for Colvin and for Stone Cabin Partnership which would be free from wild horses because such Units would be either outside of established HMAs or would have AMLs of zero.

Colvin's exclusive use areas would consist of the East Stone Cabin Valley Unit north of US Highway 6, the Stone Cabin Valley Unit south of US Highway 6 and northwest of the Caliente Railway, the South Ralston Unit south of US Highway 6 and north of the Caliente Railway, and the South McKinney Tanks Unit south of US Highway 6, as well as the Wagon Johnnie and Little Fish Lake Allotments in Little Fish Lake Valley. Together, the creation of such exclusive use areas that would be free of wild horse competition, the indemnity to Colvin for estray cattle within the Kawich Unit, the construction of highway fences and underpasses, the development of new pipelines and wells for stockwater, the construction of a pipeline to service the needs of the Yucca Mountain Repository and the greater Las Vegas metropolitan area, the acquisition of the portions of the currently vacant Ralston and McKinney Tanks grazing preferences south of US Highway 6, and reimbursement for additional monitoring expenses would adequately mitigate all of the impacts of the Caliente Rail Route affecting Colvin and would leave Colvin with a functional ranching operation with a total grazing capacity at least as large as its current preference.

The Stone Cabin Partnership's exclusive use areas would consist of the West Stone Cabin Valley Unit north of US Highway 6, the North McKinney Tanks Unit north of US Highway 6, the Hunts Canyon Unit, and the North Ralston Unit north of US Highway 6, as well as its current USFS Allotment(s). The creation of exclusive use areas that would be free of wild horse competition and acquisition of the portions of the currently vacant Ralston and McKinney Tanks grazing preferences north of US Highway 6 would leave Stone Cabin Partnership with a functional ranching operation with a total grazing capacity at least as large as its current preference.

Under the Favored Mitigation scenario, multiple use conflicts throughout three major valleys and two mountain ranges associated with the Stone Cabin Allotment would be reduced by the creation of the Kawich Unit with its exclusion of domestic livestock grazing, the conveyance of Colvin water rights therein to an affected wild horse advocacy group (or groups), and the creation of exclusive use Units for permittees, free of wild horses or with AMLs of zero. Thus, impacts to public interests related to watersheds, vegetation, visual resource management, wildlife habitat, livestock grazing, wild horses, lands, rights-of-way, utility corridors, recreation, Wilderness Study Areas, locatable minerals, and fire management would effectively be mitigated.

IN THE ALTERNATIVE: Colvin presents an Optional Mitigation scenario that would adequately mitigate all of the impacts of the Caliente Rail Route affecting Colvin and would leave Colvin with a functional ranching operation with a total grazing capacity at least as large as its current preference. However, Colvin's Optional

Mitigation scenario would not effectively mitigate impacts to public interests related to: watersheds, vegetation, visual resource management, wildlife habitat, livestock grazing, wild horses, lands, rights-of-way, utility corridors, recreation, Wilderness Study Areas, locatable minerals, and fire management.

The Optional Mitigation scenario, including Common Mitigation Actions, would allow Stone Cabin Allotment cattle to continue grazing the area southeast of the Caliente Rail Route. Wild horse AMLs would remain unchanged in the Stone Cabin HMA, both Saulsbury HMAs, and both Little Fish Lake wild horse areas. Access to the area southeast of the Caliente Rail Route by domestic livestock and the general public would be provided by fencing both sides of the Caliente Railway and constructing seven (7) railroad underpasses to prevent livestock from accessing the railway itself while allowing access to its southeast side. The DOE would construct and maintain said fences and underpasses and hold Colvin harmless for any estray cattle that enter the fenced railway. Cattle-guards and gates would be constructed at the entrance at one side of each railroad underpass to allow for control of cattle movement. The Optional Mitigation scenario would also create exclusive livestock use areas for Colvin and for Stone Cabin Partnership.

Colvin's exclusive use areas would be the East Stone Cabin Valley north of US Highway 6, the Stone Cabin Valley south of US Highway 6 to the Nellis Air Force Range boundary, the eastern half of the Ralston Allotment south of US Highway 6 and north of the railway, and the McKinney Tanks Allotment south of US Highway 6. Together, the creation of such exclusive use areas, the construction of highway fences and underpasses, the construction of railroad fences and underpasses, the indemnity to Colvin for estray cattle within the fenced railway, the development of new pipelines and wells for stockwater, the construction of a pipeline to service the needs of the Yucca Mountain Repository and the greater Las Vegas metropolitan area, the acquisition of the portions of the currently vacant Ralston and McKinney Tanks grazing preferences south of US Highway 6 from the Stone Cabin Allotment boundary to about the center of Ralston Valley, and reimbursement for additional monitoring expenses would adequately mitigate all of the impacts of the Caliente Rail Route affecting Colvin and would leave Colvin with a functional ranching operation with a total grazing capacity at least as large as its current preference.

The Stone Cabin Partnership's exclusive use areas would consist of the West Stone Cabin Valley north of US Highway 6, the McKinney Tanks Allotment north of US Highway 6, the Hunts Canyon Allotment, and the Ralston Allotment north of US Highway 6. The creation of such exclusive use areas and acquisition of the portions of the currently vacant Ralston and McKinney Tanks grazing preferences north of US Highway 6 would leave Stone Cabin Partnership with a functional ranching operation with a total grazing capacity at least as large as its current preference.

Under the Optional Mitigation scenario, multiple use conflicts between domestic livestock, wild horses, and other range users would increase in localized areas

due to disruptions to distribution and travel patterns caused by construction and operation of the Caliente Rail Route. While impacts to Colvin resulting from the railway would be mitigated, impacts to public interests related to watersheds, vegetation, visual resource management, wildlife habitat, livestock grazing, wild horses, lands, rights-of-way, utility corridors, recreation, Wilderness Study Areas, locatable minerals, and fire management would not be effectively mitigated.

STONE CABIN ALLOTMENT - PROFILE

Transportation Route Preference:

Colvin & Son, LLC opposes the Caliente Rail Route unless impacts to its interests and the interests of others within the Stone Cabin and Ralston grazing allotments are adequately mitigated, as discussed herein. Colvin & Son, LLC views the No Action Alternative proposed for evaluation under the Nevada Rail EIS as an alternative that requires significant additional analysis because a greater number of rail shipments using smaller casks and/or the transfer of radioactive material from large rail shipping casks into smaller shipping casks compatible with legal-weight trucks would be required at intermodal transfer stations, and such shipping scenarios have not yet been analyzed.

Colvin & Son, LLC encourages reconsideration of the Valley Modified rail route because it would require 69% less rail to be constructed and operated than does the Caliente Rail Route. Colvin & Son, LLC also encourages consideration of alternative Nevada rail routes that would cross the Nellis Air Force Range and Nevada Test Site more or less due east from Yucca Mountain because they would be significantly shorter than the Caliente Rail Route.

Railway Fencing Preference:

Colvin & Son, LLC prefers that the Caliente Rail Route, if approved, be fenced to prevent any surface access by grazing permittees to the railway, at least in the Stone Cabin and Ralston allotments where the railway crosses Stone Cabin Valley, Cactus Flat, and Ralston Valley.

STONE CABIN ALLOTMENT - COMMENTS, IMPACTS, AND MITIGATION

I. Issues Affecting All Rail Route Alternatives

A. Issues Affecting Private Interests

1. Private Land: Colvin & Son, LLC (and its predecessors, hereinafter "Colvin") owns and controls a significant amount of deeded land in the Stone Cabin Valley and surrounding areas, as shown in the "Legal Description" portion of Attachment "A" affixed and hereby incorporated by reference.

Portions of this deeded land serve as base property for Colvin's Bureau of Land Management ("BLM") grazing preference, including the preference associated with the Stone Cabin Allotment, as shown in the "Colvin & Son, LLC Offered BLM Base Property" affixed as Attachment "B" and incorporated by reference. Portions of this deeded land also serve as base property for Colvin's US Forest Service ("USFS") grazing preference associated with the Wagon Johnnie and Little Fish Lake Allotments.

2. Grazing Preference and Forage Allocations: Colvin holds 12,390 AUMs of grazing preference associated with the Stone Cabin Allotment, of which 11,973 AUMs are active and 417 AUMs are suspended, as shown on page two of the February 2001 ten-year "Grazing Permit" affixed as Attachment "C" and incorporated by reference.

Another grazing permittee (Stone Cabin Partnership) holds 3,155 AUMs of grazing preference associated with the Stone Cabin Allotment, of which 1,990 AUMs are active and 1,165 AUMs are suspended.

Thus, there is a total of 15,545 AUMs of livestock grazing preference associated with the Stone Cabin Allotment, of which 13,963 AUMs are active (86% Colvin, 14% Stone Cabin Partnership). An additional 4,368 AUMs of forage has been allocated to wild horses, for a total grazing demand of 19,913 AUMs within the Stone Cabin Allotment, of which 18,331 AUMs are actively used (76% domestic livestock, 24% wild horses). See page A-12 of Attachment "F" affixed hereto.

Since November 15, 1996, Temporary Non-Renewable (TNR) BLM grazing authorizations have been granted to Colvin for winter grazing within the otherwise vacant Ralston Allotment during portions of 6 different calendar years. Colvin's Ralston TNR authorizations totaled 5,533 AUMs during the 1996-1997 winter grazing period, 5,841 AUMs during the 1997-1998 winter grazing period, 3,180 AUMs during the 1999 winter grazing period, and 3,866 AUMs during the 2002-2003 winter grazing period.

3. Nevada Grazing Rights: In addition to Federally recognized grazing preferences associated with Colvin's BLM and US Forest Service ("USFS") grazing permits, Colvin enjoys Nevada grazing rights based upon "customary or established use" which are recognized under Sections 568.230 through 568.290 of the Nevada Revised Statutes. Among other things, such statutes make it unlawful for any entity to graze livestock in a manner that will:

> "prevent, restrict or interfere with the customary use of the land for grazing livestock by any person who, by himself or his grantors or predecessors, has become established, either exclusively or in common with others, in the grazing use of the land by operation of law or under and in accordance with the customs of the graziers of the region involved."

Such statutes further state:

> "Any change in customary use so established must not be made after March 30, 1931, so as to prevent, restrict or interfere with the customary or established use of any other person or persons."

4. Range Improvements: Colvin holds an interest in numerous range improvements located within the Stone Cabin Allotment, including but not limited to those shown in the "Assignment of Range Improvements" affixed as Attachment "D" and hereby incorporated by reference.

5. Federal Grants: Range improvements constructed within the Stone Cabin Allotment prior to passage of the 1976 Federal Land Policy and Management Act ("FLPMA") were authorized under various acts dating between 1866 and 1976. The Act of July 25, 1866 (14 Statute at Large, 239-242) authorized private entities to hold right, title, and interest in water developments, reservoirs, ditches and other rights-of-way upon or across the public land and National Forest System land. Additional acts passed through 1976 granted private entities broad rights to hold right, title, and interest to improvements located upon public land and/or National Forest System land pursuant to the provisions of said acts. Range improvements constructed within the Stone Cabin Allotment after passage of FLPMA are authorized under both such prior acts and Range Improvement Permits/Cooperative Agreements pursuant to FLPMA and the Taylor Grazing Act.

6. Water Rights: Colvin holds numerous water right permits, certificates, claims, and applications to appropriate water from the State of Nevada in the Stone Cabin Valley and surrounding area, including but not limited to those shown in the "Abstract of Active Rights" affixed as Attachment "E" and incorporated by reference. Such water rights are bonafide private property interests which could be adversely impacted by the construction and operation of a Nevada rail route.

7. Wildlife, Recreation, Aesthetics, Cultural Resources, Wild Horses, and Wilderness Study Areas: Colvin has always striven to manage the ranch operation within the Stone Cabin Allotment in a manner that is consistent with the achievement of land use plan objectives for wildlife, recreation, aesthetic values, cultural resources, wild horses, and wilderness study areas. Such objectives are currently set forth by the "Approved Tonopah Resource Management Plan and Record of Decision" dated October 1997 ("1997 RMP/ROD") affixed as Attachment "F" and hereby incorporated by reference. By law, Colvin's ranch operation within the Stone Cabin Allotment must continue to be compatible with applicable land use plan objectives in the future.

8. Monitoring Investment: Since 1983, Colvin has invested a significant amount of funding, effort, and time in monitoring the effectiveness of its livestock management (and the management practices of federal land management agencies) in achieving 1997 RMP/ROD and previous land use plan objectives associated with Colvin's federal Grazing Preferences. Colvin's monitoring investment has included the selection and establishment of permanent vegetation study sites, wild horse censuses and distribution studies, use pattern mapping, monitoring relative changes inside and outside grazing exclosures, as well as the collection and evaluation of data regarding utilization by cattle, wild horses, and other herbivores, ecological condition, trend in ecological condition, trend in plant frequency, plant productivity, species composition, and regrowth potential. Between 1998 and 2004, Colvin's monitoring investment has averaged approximately 520 man hours (65 work days) annually, which equates to an annual monitoring expenditure of at least $50,000 in today's currency, including wages and associated expenses. About half of Colvin's total monitoring investment, equivalent to $25,000 annually, has been related directly to monitoring activities within the Stone Cabin Allotment.

9. Mining: There is presently a substantial amount of mining activity occurring annually within the Stone Cabin Allotment, particularly within the southern portion of the Allotment in and around the Golden Arrow area. Such mining rights and claims are additional private property interests which could be adversely impacted by the construction and operation of a Nevada rail route.

B. Issues Affecting Public Interests

The public land within the Stone Cabin Allotment is within the Battle Mountain Grazing District, Nevada. See Taylor Grazing Act, 43 U.S.C. § 315 (wherein "the Secretary of the Interior is authorized... to establish grazing districts... from any part of the public domain of the United States... and which in his opinion are chiefly valuable for grazing and raising forage crops").

The public land within the Stone Cabin Allotment is situated within the Tonopah Planning Area of the Battle Mountain Grazing District, Nevada. This planning area

is controlled by and subject to the 1997 RMP/ROD adopted in accordance with the Federal Land Policy and Management Act. See 43 U.S.C. § 1712 (wherein "The Secretary shall, with public involvement and consistent with the terms and conditions of this Act, develop... land use plans which provide by tracts or areas for the use of the public lands. Land use plans shall be developed for the public lands regardless of whether such lands previously have been classified, withdrawn, set aside, or otherwise designated for one or more uses"). The law provides that "All future resource management authorizations and actions (within the planning area), as well as budget or other action proposals to higher levels of the Bureau of Land Management and Department (of Interior), and subsequent more detailed or specific planning (within the planning area), **shall conform** to the approved (land use) plan." See 43 C.F.R. § 1610.5-3(a), emphasis added. See also 43 C.F.R. § 4100.0-8. See also 1997 RMP/ROD, p. 26 (wherein a Standard Operating Procedure applicable to the Tonopah Planning Area states that "All future authorizations will be in conformance with the RMP").

The 1997 RMP/ROD arose from a scoping process that began in 1990. Between 1990 and 1993, a Draft Environmental Impact Statement was prepared, ultimately concluding in the issuance of a "Draft Tonopah Resource Management Plan and Environmental Impact Statement" dated June 1993. Between 1993 and 1994, a Final Environmental Impact Statement was prepared, ultimately concluding in the issuance of the "Proposed Tonopah Resource Management Plan and Final Environmental Impact Statement" dated October 1994. Between 1994 and 1997, BLM evaluated the protests that were filed against the Proposed RMP/FEIS, ultimately concluding in the issuance of the 1997 RMP/ROD.

The 1997 RMP/ROD established resource management "objectives" and related RMP "determinations" relative to a range of resource uses within the Tonopah Planning Area, including, but not limited to, watershed, vegetation, visual resource management, wildlife habitat management, special status species, livestock grazing management, wild horses and burros, cultural resources, lands and rights-of-way, recreation, wilderness, fluid minerals, locatable minerals, and fire management. Each of these resource management "objectives", related RMP "determinations" and related "Standard Operating Procedures" ("SOPs") control the types of future resource management authorizations and actions that may occur on the public land within the Tonopah Planning Area. See 43 C.F.R. § 1610.5-3(a). See also 43 C.F.R. § 4100.0-8. The resource management "objectives", related RMP "determinations", and SOPs applicable to any rail alignment course within the Stone Cabin Allotment are discussed below. See 1997 RMP/ROD, p. 38 (which states "The Standard Operating Procedures section... explains most of the monitoring procedures and mitigation measures in common use").

At the outset, it must be stated that the nine year land use planning process culminating in the 1997 RMP/ROD did not consider or evaluate any rail alignment course within the Tonopah Planning Area, let alone specifically authorize the

Caliente Rail Route. See also 43 U.S.C. §§ 1761-1771 (laws relating to rights-of-way issuance upon public land).

1. Watersheds: The 1997 RMP/ROD objective is "To maintain or improve watershed condition in the Tonopah Planning Area". 1997 RMP/ROD, p. 5. See also Map 3 from the 1997 RMP/ROD.

* A related SOP states "Best Management Practices and appropriate mitigation will be identified during project-level environmental review and applied during project implementation for any ground-disturbing activity that may reduce soil productivity or cause surface erosion." 1997 RMP/ROD, p. 27.

The Stone Cabin Allotment includes the Stone Cabin watershed within the proposed rail alignment course for the Caliente Rail Route.

2. Vegetation: The 1997 RMP/ROD objective is "To provide for vegetative and ecological diversity." 1997 RMP/ROD, p. 5.

* Related determinations are to "Manage the vegetation resource for desired plant communities" and "Management of the vegetative resource will provide for the physiological needs... of the key forage plant species." 1997 RMP/ROD, p. 5. See also Map 5 from the 1997 RMP/ROD.

Desired plant communities for the Stone Cabin Allotment are currently expressed in terms of rangeland condition (ecological condition) to be achieved under the previous Tonopah Resource Area Management Framework Plan's established objective to "maintain and improve, where necessary, the condition of the rangeland vegetation resource." See 1997 RMP/ROD, Appendix 16, p. A-75.

3. Visual Resource Management. The 1997 RMP/ROD objective is "To designate visual resource management classes and maintain existing scenic qualities". 1997 RMP/ROD, p. 6.

The Stone Cabin Allotment is designated as a VRM Class IV within and surrounding the proposed rail alignment course for the Caliente Rail Route. See Map 7 from the 1997 RMP/ROD.

* A related determination is to "Manage the Tonopah Planning Area for the following Visual Resource Management... classes." 1997 RMP/ROD, p. 6. See also Map 7 from the 1997 RMP/ROD. The Class IV VRM rating provides "Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic elements (form, line, color, texture) inherent in the characteristic landscape." 1997

RMP/ROD, p. 6. The Class IV VRM rating adds "Structures in the foreground distance zone (0-1/2 mile) often create a contrast that exceeds the VRM class... Approval by the Area Manager is required on a case-by-case basis to determine whether the structure(s) meet the acceptable VRM class standards." 1997 RMP/ROD, p. 6.

* A related SOP states "Visual resources will continue to be evaluated, using the Contrast Rating process, as a part of activity and project planning. These evaluations will consider the significance of the proposed project and the visual sensitivity of the affected area. Stipulations will be developed and attached to project authorizations to maintain designated VRM classes. Stipulations may include requirements to locate activity sites behind topographic features to hide them from view, modify access routes, color buildings and equipment to blend in with their surrounds, develop projects in phases, etc. If VRM class objectives cannot be met, the impacts to visual resources will be detailed in the project-level environmental analysis and used by the Authorized Officer as a factor in the decision to authorize or deny a proposed action." 1997 RMP/ROD, p. 27.

4. Wildlife Habitat Management. The 1997 RMP/ROD objective is "To maintain and enhance wildlife habitat and provide for species diversity". 1997 RMP/ROD, p. 7.

* A related determination is to "Manage mule deer habitat for best possible condition within the site potential..." 1997 RMP/ROD, p. 8. See also Map 10 from the 1997 RMP/ROD.

* A related SOP states "... wildlife habitat will continue to be evaluated as part of project-level planning. Such evaluation will consider the significance of the proposed project and the sensitivity of... wildlife habitat in the affected area. Stipulations will be attached as appropriate to assure compatibility of projects with management objectives for... wildlife habitat." 1997 RMP/ROD, p. 28.

The Stone Cabin Allotment includes year-long mule deer range within and surrounding a portion of the proposed rail alignment course for the Caliente Rail Route. See Map 10 from the 1997 RMP/ROD.

* A related determination is to "Manage pronghorn antelope habitat for best possible condition within the site potential. In conjunction with (NDOW)... continue to support the reintroduction and augmentation of antelope... Develop additional water sources." 1997 RMP/ROD, p. 8. See also Map 9 from the 1997 RMP/ROD.

The Stone Cabin Allotment includes pronghorn antelope habitat within and surrounding most of the proposed rail alignment course for the Caliente Rail Route. See Map 9 from the 1997 RMP/ROD.

5. Special Status Species. The 1997 RMP/ROD objective is "To protect, restore, enhance, and expand habitat of species identified as threatened, endangered, or Nevada BLM Sensitive Species under the Endangered Species Act." 1997 RMP/ROD, p. 9.

* A related determination is that "Habitat for all Federally listed threatened or endangered species or Nevada BLM Sensitive Species... will be managed to maintain or increase current populations..." 1997 RMP/ROD, p. 9.

* A related SOP states "It is BLM policy to carry out the management of Nevada BLM Sensitive Species consistent with multiple-use for conservation of these species and their habitats and ensure that actions authorized or funded do not contribute to the need to list any of these species as threatened or endangered. In order to prevent listing of Nevada BLM Sensitive Species, BLM may enter into Conservation Agreements or Species Management Plans with the U.S. Fish and Wildlife Service." 1997 RMP/ROD, p. 28.

No threatened, endangered, or Nevada BLM Sensitive Species were identified within the Stone Cabin Allotment by the most recent BLM grazing evaluation completed in 1986.

6. Livestock Grazing Management. The 1997 RMP/ROD objective is "To create healthy, productive rangelands through implementation of the recommendations of the ongoing rangeland monitoring and evaluation program." 1997 RMP/ROD, p. 12.

* A related determination is that "The Tonopah MFP and Tonopah Grazing EIS... provide the guidance necessary for the livestock grazing program." 1997 RMP/ROD, p. 12. See also Map 16 from the 1997 RMP/ROD (wherein allotment boundaries are identified).

* A related determination is to "Manage livestock at initial stocking levels of 134,355 animal unit months". 1997 RMP/ROD, p. 12.
* A related SOP states "The clearing of vegetation from project sites will be restricted to the minimum amount necessary to properly and safely complete the project." 1997 RMP/ROD, p. 29.

* A related SOP states "All disturbed areas will be rehabilitated, where such action is necessary and/or practical, to replace ground cover and prevent erosion... All fences will be designed to assure a minimum of impacts to wildlife, wild horses/burros, recreation, and visual resources." 1997 RMP/ROD, p. 29.

* A related SOP states "Alteration of sagebrush areas either through herbicides, prescribed burning, or by mechanical means will be in accordance with procedures specified in the Western States' Sage Grouse Guidelines and the Memorandum of Understanding between Nevada Division of Wildlife and the Nevada BLM..." 1997 RMP/ROD, p. 29.

* A related SOP states "Vegetative manipulations that will alter the potential natural plan composition will not be allowed in riparian areas..." 1997 RMP/ROD, p. 29.

The initial stocking level for the Stone Cabin Allotment is 13,963 active AUMs (plus 4,368 active AUMs for wild horses within Stone Cabin Herd Management Area ("HMA"), for a grand total of 18,331 active AUMs). 1997 RMP/ROD, p. A-12. See 43 C.F.R. §§ 4100.0-5, 4130.8-1(c) (wherein AUM or Animal Unit Month is defined and described).

7. Wild horses and burros. The 1997 RMP/ROD objective is "To manage wild horse and/or burro populations within Herd Management Areas at levels which will preserve and maintain a thriving natural ecological balance consistent with other multiple-use objectives." 1997 RMP/ROD, p. 14.

* A related determination is to "Manage wild horses... in 16 herd management areas". 1997 RMP/ROD, p. 14. See also Map 18 from the 1997 RMP/ROD (wherein Herd Management Areas are delineated).

* A related SOP states "It is the intent of the BLM to manage wild horses... within areas occupied in 1971... The suitability of some areas to support wild horses... will be reassessed as appropriate in light of new information from monitoring and emergency gathers." 1997 RMP/ROD, p. 30.

The Stone Cabin Herd Management Area encompasses the entirety of the Stone Cabin and Willow Creek Allotments. Part of the proposed rail alignment course for the Caliente Rail Route will cross the Stone Cabin HMA by diagonally bisecting the Stone Cabin Valley south of US Highway 6.
* A related determination is to "Manage wild horses... at appropriate management level... for each herd management area". 1997 RMP/ROD, p. 14.

The Appropriate Management Level ("AML") for the Stone Cabin HMA is 364 wild horses. The AML for the Saulsbury HMA is 40 and the AML for the BLM Little Fish Lake HMA is 39. 1997 RMP/ROD, p. 15. The AML for the USFS Little Fish Lake Wild Horse Territory is 93, for a total AML of 132 wild horses in the Little Fish Lake wild horse areas (Wagon Johnnie Allotment).

8. Cultural Resources. The 1997 RMP/ROD objective is "To protect archaeological, historical, paleontological, and sociocultural resources and manage for information potential... public values... and conservation... in conjunction with other multiple uses." 1997 RMP/ROD, p. 16.

* A related determination is to "Classify and manage the following cultural resources... c. Manage for Conservation... historic sites associated with... locally important ranching operations..." 1997 RMP/ROD, pp. 16-17. See also 1997 RMP/ROD, pp. A-27.

Colvin & Son, LLC is the successor in interest to others that have grazed livestock upon the Stone Cabin Allotment and within the area of the proposed rail alignment course for the Caliente Rail Route for over 100 years and is a "locally important ranching operation." In addition, the Stone Cabin Partnership (aka the Clifford Family) has grazed livestock upon the Stone Cabin Allotment and within the area of the proposed rail alignment course for the Caliente Rail Route for over 100 years and is a "locally important ranching operation." Thus, any historic sites associated with the ranching operations within the Stone Cabin Allotment are to be managed for their conservation because such operations are "locally important ranching operations." However, no such historic sites are known to exist in or adjacent to the Caliente Rail Route course within the Stone Cabin Allotment.

9. Lands and Rights-of-Way. The 1997 RMP/ROD objective is "To make lands available for community expansion and private economic development and to increase the potential for economic diversity." 1997 RMP/ROD, p. 18.

* A related determination is "Make an additional 255,380 acres of public lands available for potential disposal." 1997 RMP/ROD, p. 18. See also Map 20 from the 1997 RMP/ROD (wherein Land Tenure areas are identified).

Certain public land is available for disposal within the Stone Cabin Allotment, but outside the proposed rail alignment course for the Caliente Rail Route. See Map 20 from the 1997 RMP/ROD (identifying Land Tenure areas).
* A related determination is "All other lands within the Tonopah Planning Area in which there are no unresolvable conflicts with other resource values will be open to consideration for linear or areal rights-of-ways, leases, and land-use permits. Any such grants, leases, or permits will include appropriate stipulations to protect the area's special values." 1997 RMP/ROD, p. 19. See also Map 20 from the 1997 RMP/ROD (wherein "Utility Corridors" are identified). See also Map 22 from the 1997 RMP/ROD (wherein Right-of-Way avoidance areas are identified).

* A related SOP states "Unless these lands are dedicated to a specific use or uses, or are included within avoidance or exclusion areas, they are available for rights-of-way..." 1997 RMP/ROD, p. 32.

* A related SOP states "All new proposed withdrawals must be identified in an approved land-use plan." 1997 RMP/ROD, p. 32.

* A related SOP states "Unless the land has been dedicated for a specific use or uses, public land within the Tonopah Planning Area is available for consideration for linear rights-of-way, and for utility transportation and distribution purposes. Such land is also available for areal rights-of-way purposes." 1997 RMP/ROD, p. 33.

* A related SOP states "Prior to issuance of right-of-way authorization, a site-specific environmental analysis is performed which considers, among other things, habitat of threatened, endangered, or Nevada BLM Sensitive Species; sites or places listed or eligible for inclusion on the National Register of Historic Places; wilderness areas and areas being studied for wilderness; riparian areas; nesting/breeding habitat for animals; big game seasonal habitat; visual resources; and other considerations mandated by law." 1997 RMP/ROD, p. 33.

* A related SOP states "Designated right-of-way corridors within the Tonopah Planning Area are three miles wide except where topographic constraints exist. Grants for rights-of-way are still required for facilities placed within designated corridors. Designation of a corridor does not necessarily mean that future rights-of-way are restricted to corridors, nor does it mean that there is a commitment by the BLM to approve all right-of-way applications within corridors..." 1997 RMP/ROD, p. 33.

Certain public land within the Stone Cabin Allotment is subject to a Utility Corridor and the majority of the proposed rail alignment course for the Caliente Rail Route lies within such Utility Corridor. However, no right-of-way for any railway is identified in the 1997 RMP/ROD. See Map 20 from the 1997 RMP/ROD (wherein Utility Corridors are identified).

10. Recreation. A 1997 RMP/ROD objective is "To encourage safe, public access and recreational use of public lands while ensuring protection of important resource values." 1997 RMP/ROD, p. 20.

* A related determination is "In order to protect sensitive resource values such as threatened and endangered species and cultural resources, designate 1,250,290 acres as limited to vehicle use (restrictions limiting use to existing roads, trails, and washes; seasonally, or by type of user) and keep 4,840,811 acres open to unrestricted vehicle use." 1997 RMP/ROD, p. 20. See also Map 30 from the 1997 RMP/ROD (wherein Off Highway Vehicle Restrictions are identified).

* A related SOP states "Recreation resources will continue to be evaluated on an individual basis as part of activity and project-level planning. Such evaluations will consider the sensitivity of, and the impacts on, recreation resources in the affected area. Stipulations will be attached as appropriate to assure the compatibility of projects with recreation management objectives." 1997 RMP/ROD, p. 33.

* A related SOP states "Vehicle use in Wilderness Study Areas (WSAs) is currently managed as limited to existing (1980 inventory) roads, trails and ways..." 1997 RMP/ROD, p. 33.

No Off Highway Vehicle Restrictions are identified within or adjacent to the proposed rail alignment course for the Caliente Rail Route within the Stone Cabin Allotment. See Map 30 from the 1997 RMP/ROD (wherein Off Highway Vehicle Restrictions are identified).

Another 1997 RMP/ROD objective is "To provide dispersed recreation opportunities on all lands which are not designated as Special Recreation Management Areas." 1997 RMP/ROD, p. 21. See also Appendix 10 from the 1997 RMP/ROD.

* A related determination is to "Designate the Tonopah Extensive Recreation Management Area to include the 6,026,570 acres not within a Special Recreation Management Areas. Develop minimal facilities necessary to meet the needs to dispersed recreational uses and to protect the environment. Approximately 60 acres will be used in construction of facilities..." 1997 RMP/ROD, p. 21.

No Special Recreation Management Areas are identified within or adjacent to the proposed rail alignment course for the Caliente Rail Route within the Stone Cabin Allotment.

Another 1997 RMP/ROD objective is "To provide a full range of recreational settings, from rural to wilderness, for the pursuit of a wide variety of recreational opportunities." 1997 RMP/ROD, p. 21.

* A related determination is to "Manage 465,725 acres of semiprimitive motorized values. Manage 90,370 acres of primitive and 339,120 acres of semiprimitive nonmotorized recreation opportunity settings. Primitive and semiprimitive nonmotorized lands will be managed for Class II Visual Resource Management." 1997 RMP/ROD, p. 21. See also Map 28 from the 1997 RMP/ROD (wherein Recreation Opportunity Spectrum restrictions are identified). See also 1997 RMP/ROD, pp. A-25, A-26.

No specific Recreation Opportunity Spectrum restrictions are identified within or adjacent to the proposed rail alignment course for the Caliente Rail Route

within the Stone Cabin Allotment. See Map 28 from the 1997 RMP/ROD (wherein Recreation Opportunity Spectrum restrictions are identified). Thus, the entire proposed rail alignment course for the Caliente Rail Route within the Stone Cabin Allotment is classified as either roaded natural or rural with respect to the Recreation Opportunity Spectrum. See Appendix 10 from the 1997 RMP/ROD.

11. Wilderness. The 1997 RMP/ROD objective is "To manage all lands released from wilderness consideration by Congress as a part of the full spectrum of multiple uses within the Tonopah Planning Area." 1997 RMP/ROD, p. 22. See also Map 26 from the 1997 RMP/ROD (wherein Wilderness Study Areas are identified).

* A related determination is "If released by Congress from further wilderness consideration, Wilderness Study Areas will be: 1. Managed as proposed in other resource programs (see Map 26 from the 1997 RMP/ROD). 2. Manage for 90,370 acres of primitive values, 245,780 acres of semiprimitive nonmotorized values, and 268,385 acres of semiprimitive motorized values. 3. Manage as Visual Resource Management Class II areas to comply with BLM policy. No competitive events will be authorized." 1997 RMP/ROD, p. 20. See also 1997 RMP/ROD, p. 27 (VRM classes as related to WSAs).

* A related SOP states "BLM policy requires that all... (WSAs) be managed in accordance with the provisions of Section 603(c) of the Federal Land Policy and Management Act and the BLM Interim Management Policy for Lands Under Wilderness Review (IMP) so as not to impair their suitability for preservation of wilderness... The IMP contains specific management direction for activities in WSAs which may occur or be authorized." 1997 RMP/ROD, p. 34.

No part of the Rawhide or Kawich Wilderness Study Areas within the Stone Cabin Allotment lie within or adjacent to the proposed rail alignment course for the Caliente Rail Route. See Map 26 from the 1997 RMP/ROD (wherein Wilderness Study Areas are identified).

12. Utility Corridors. The 1997 RMP/ROD objective is "To facilitate the placement of major transportation and utility systems passing through the Tonopah Planning Area and to minimize conflicts with other resource values." 1997 RMP/ROD, p. 22. See also Map 20 from the 1997 RMP/ROD (wherein Utility Corridors are identified).

* A related determination is "Designate transportation and utility corridors on 668 lineal miles (this includes those previously designated in the Esmeralda-Southern Nye Resource Management Plan...)." 1997 RMP/ROD, p. 22.

Certain public land within the Stone Cabin Allotment (along US Highway 6 and southwest to the Nellis Air Force Range boundary) was designated as a Utility Corridor and the majority of the proposed rail alignment course for the Caliente Rail Route lies within such corridor. However, no right-of-way for any railway is identified in the 1997 RMP/ROD. See Map 20 from the 1997 RMP/ROD (wherein Utility Corridors are identified).

13. Fluid Minerals. The 1997 RMP/ROD objective is "To provide opportunity for exploration and development of fluid minerals such as oil, gas, and geothermal resources, using appropriate stipulations to allow for the preservation and enhancement of fragile and unique resources." 1997 RMP/ROD, p. 22. See also Map 32 from the 1997 RMP/ROD (wherein Fluid Mineral Potential is identified).

* A related determination is "A total of 5,360,477 acres... will be open to fluid mineral leasing subject to standard lease terms and conditions." 1997 RMP/ROD, p. 22.

* A related SOP states "BLM actively encourages and facilitates the private development of public mineral resources in a manner that satisfies national and local needs, and provides for economically and environmentally sound exploration, extraction, and reclamation practices." 1997 RMP/ROD, p. 35.

* A related SOP states "Land-use plans and multiple-use management decisions of the BLM will recognize that mineral exploration and development can occur concurrently or sequentially with relation to other resource uses." 1997 RMP/ROD, p. 35.

No Fluid Mineral potential has been identified within or adjacent to the proposed rail alignment course for the Caliente Rail Route within the Stone Cabin Allotment. See Map 32 from the 1997 RMP/ROD (wherein Fluid Mineral Potential is identified).

14. Locatable Minerals. The 1997 RMP/ROD objective is "To provide opportunity for exploration and development of locatable minerals such as gold, silver, copper, lead, zinc, molybdenum, etc., consistent with the preservation of fragile and unique resources in areas identified as open to the operation of the mining laws." 1997 RMP/ROD, p. 23. See also Map 36 from the 1997 RMP/ROD (wherein Locatable Mineral Potential is identified). See also Map 24 from the 1997 RMP/ROD (wherein mining withdrawal areas are identified).

* A related determination is "A total of 6,028,948 acres... will be open to the operation of the mining laws." 1997 RMP/ROD, p. 23.

* A related SOP states "BLM provides for mineral entry, exploration, location, and operations pursuant to the mining laws in a manner that 1) will not unduly

hinder the mineral activates, and 2) assures that these activates are conducted in a manner which will prevent undue or unnecessary degradation of the public land." 1997 RMP/ROD, p. 35.

High, Moderate, and Low locatable mineral potential areas have been identified within the Stone Cabin Allotment within and adjacent to the proposed rail alignment course for the Caliente Rail Route. See Map 36 from the 1997 RMP/ROD (wherein Locatable Mineral Potential is identified).

15. Fire Management. The 1997 RMP/ROD objective is "To protect natural resources from unacceptable damage by fire in a cost-effective manner with a high regard for private property and safety. Promote resource management through prescribed fire to maintain the natural component of the ecosystem." 1997 RMP/ROD, p. 25. See also Map 38 from the 1997 RMP/ROD (wherein Fire Management Zones are identified).

* A related determination is "All wildfires in Fire Management Zone 1 will receive aggressive initial attack, to contain all fires in intensity levels 1 through 6, 90 percent of the time to 300 acres or less." 1997 RMP/ROD, p. 25.

* A related determination is "If an approved natural prescribed fire plan is written, some wildfires in Fire Management Zone 2 may be allowed to burn to promote a more natural fire regime..." 1997 RMP/ROD, p. 25.

* A related SOP states "The fire management program is guided by the approved Battle Mountain District Fire Management Activity Plan and this RMP." 1997 RMP/ROD, p. 37.

* A related SOP states "Every wildfire within the Tonopah Planning Area will have an appropriate action taken..." 1997 RMP/ROD, p. 37.

Fire Management Zones 1 and 2 exist within and around the proposed rail alignment course for the Caliente Rail Route in the Stone Cabin Allotment. See Map 38 from the 1997 RMP/ROD (identifying Fire Management Zones).

C. Legal Defects

1. Lack of Public Participation by "Other Interested Persons" Within the Stone Cabin Allotment and Neighboring Allotments. The "Record of Decision on Mode of Transportation and Nevada Rail Corridor for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, NV" dated April 2, 2004 is flawed as related to the "Rail Corridor Decision". See 69 Fed.Reg. 18557, 18564-18565 (4/8/04). The "Rail Corridor Decision" states:

"Department (of Energy) has decided to select the preferred rail corridor alternative, the Caliente corridor, in which to evaluate alignments for a rail line."

See 69 Fed.Reg. 18557, 18564 (4/8/04). However, at no time during the EIS process did the Department of Energy ("DOE") notify the owners of the public land interests and other private interests within the Stone Cabin Allotment and neighboring allotments which the Caliente Rail Route intends to cross. In fact, Colvin and other such owners were not aware of the EIS process until immediately before the "Rail Corridor Decision" was issued. On March 11, 2004, an Owner of the Twin Springs Ranch provided comment and requested information upon learning of the EIS process, but DOE provided no response to such comment before issuance of their "Rail Corridor Decision" and DOE did not re-initiate the NEPA process to include such owners in violation of NEPA and CEQ regulations. See 40 C.F.R. § 1501.7(a)(1) (wherein an agency must "(i)nvite the participation of affected Federal, State, and local agencies, any affected Indian tribe, the proponent of the action, and other interested persons"). See also Northwest Coalition for Alternatives to Pesticides v. Lyng, 844 F.2d 588, 594-595 (9th Cir. 1988); Wyoming v. U.S. Dept. of Agri, 277 F.Supp.2d 1197, 1219-1221 (D.Wyo. 2003). Unquestionably, the owners of the interests within the Stone Cabin Allotment and neighboring allotments to be crossed are and were within the category of "other interested persons". Accordingly, the "Rail Corridor Decision" (see 69 Fed.Reg. 18557, 18564-18565) and the "Notice of Intent" (see 69 Fed.Reg. 18565-18569) must be vacated, pending re-initiation of the NEPA process to include at least the owners of the interests within the Stone Cabin Allotment and neighboring allotments which the Caliente Rail Route intends to cross.

2. No FLPMA/NEPA Documentation Prepared by BLM. The "Record of Decision on Mode of Transportation and Nevada Rail Corridor for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, NV" dated April 2, 2004 is flawed as related to the "Rail Corridor Decision". See 69 Fed.Reg. 18557, 18564-18565 (4/8/04). The "Rail Corridor Decision" states:

"Department (of Energy) has decided to select the preferred rail corridor alternative, the Caliente corridor, in which to evaluate alignments for a rail line."

See 69 Fed.Reg. 18557, 18564 (4/8/04). However, it was not the authority of the Department of Energy to select as the preferred rail corridor the Caliente corridor as it exists upon public land, especially within the Tonopah Planning Unit. The Standard Operating Procedure for "Environmental Review and Management" within the 1997 RMP/ROD states:

"In compliance with NEPA and CEQ regulations, **BLM will prepare site-specific environmental reviews** before actions proposed in

> this RMP/EIS are implemented, or **prior to approval of any project authorized on public lands**. The environmental reviews provide site-specific assessments of the impacts from implementing these actions. As appropriate, these reviews are documented in... Environmental Impact Statements and Records of Decision."

Emphasis added. See 1997 RMP/ROD, p. 26. Here, BLM did not prepare an EIS upon which the "Rail Corridor Decision" was made, but instead DOE prepared an EIS. Any site-specific environmental review of any proposed rail right-of-way across public land within the Tonopah Planning Area should have been prepared, selected, and decided by BLM, not DOE. See also 43 U.S.C. § 1761(a)(6) (wherein the authority to grant a rail right-of-way upon public land is vested n the Secretary of the U.S. Department of Interior, aka BLM).

In addition, the "Notice of Intent to Prepare an Environmental Impact Statement for the Alignment, Construction, and Operation of a Rail Line to a Geological Repository at Yucca Mountain, Nye County, NV" dated April 2, 2004 is flawed for the same reason, since the "Notice of Intent" is contemplating the preparation of another EIS document by DOE, not by BLM. See 69 Fed.Reg. 18565-18569 (4/8/04). While DOE "invites" BLM in their "Notice of Intent" to "cooperat(e)" in the preparation of the EIS (69 Fed.Reg. 18568), such invitation does not satisfy the requirements of the 1997 RMP/ROD and/or abrogates BLM's authority to issue rail rights-of-way upon public land within (at least) the Tonopah Planning Area under the Federal Land Policy and Management Act. See also letter from Brian Sandoval, Nevada Attorney General, to James L. Connaughton, Chairman of the U.S. Council of Environmental Quality, dated January 26, 2005 (wherein the Nevada Attorney General complains that DOE appears to be usurping legal and regulatory requirements "in assigning to itself lead agency status for the evaluation and construction of what promises to be the largest new rail project in North America in many decades").

Accordingly, the "Rail Corridor Decision" (see 69 Fed.Reg. 18557, 18564-18565) and the "Notice of Intent" (see 69 Fed.Reg. 18565-18569) must be vacated, pending the preparation of requisite NEPA documentation by BLM itself.

3. False Assumptions and Faulty Logic was Used to Select the Caliente Rail Route Over Alternative Rail Routes. The "Record of Decision on Mode of Transportation and Nevada Rail Corridor for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, NV" dated April 2, 2004 is flawed as related to the "Rail Corridor Decision". See 69 Fed.Reg. 18557, 18564-18565 (4/8/04). The "Rail Corridor Decision" -- to select the Caliente Rail Route -- was based upon false assumptions and faulty logic.

The DOE's "Basis for Rail Corridor Decision" states "The Department considered potential land use conflicts and their potential to affect adversely construction of a rail line...", then concludes that the Caliente Rail Route "appears to have the

fewest land use or other conflicts...". The DOE's Decision implies that potential conflicts with the Desert National Wildlife Range and local community development plans for the Las Vegas metropolitan area associated with the Valley Modified Rail Route exceed potential conflicts associated with the Caliente Rail Route. See 69 Fed.Reg. 18564 (4/8/04). However, the "Rail Corridor Decision" and Yucca FEIS fail to consider and recognize numerous land uses and potential conflicts associated with the Caliente Rail Route which skewed the DOE's conclusions regarding potential conflicts to favor the Caliente Rail Route over the Valley Modified Rail Route and other alternative routes.

The DOE's "Rail Corridor Decision" states "DOE also considered concerns expressed by the public in Nevada... that DOE should avoid rail corridors in the Las Vegas Valley." Rejecting the Valley Modified Rail Route based upon these concerns is illogical because the nuclear waste would come in similar proximity to numerous metropolitan areas as it crossed the national rail system, such as Denver and Salt Lake City. This would be particularly true if train "consists" (complete train assemblies) were dedicated to the shipment of nuclear waste rather than intermixed with other commercial loads because such dedicated shipments would simply be switched onto the new Nevada railway and travel through the greater Las Vegas metropolitan area without ever stopping, just as they would through other metropolitan areas. The DOE itself recognizes that "environmental impacts identified in the Final EIS do not provide a clear basis for discriminating among alternative rail corridors in Nevada", and that "DOE does not consider the differences among the corridor alternatives to be sufficient to make any of them environmentally preferable." See 69 Fed.Reg. 18563 (4/8/04). Thus, despite "concerns expressed by the public in Nevada", it was illogical for the DOE to favor the Caliente Rail Route over the Valley Modified Rail Route and other alternative routes when the DOE flatly concluded that environmental risks associated with all of the alternatives are essentially equal.

II. Issues Specific to the No Action Alternative

The No Action Alternative proposed for evaluation under the Nevada Rail EIS requires the DOE to analyze the following actions that were not previously analyzed: 1) effects associated with a greater number of rail shipments using smaller casks; 2) effects associated with the transfer of radioactive material from large rail shipping casks into smaller shipping casks compatible with legal-weight trucks at intermodal transfer stations; or, 3) some combination of these actions. Without a new Nevada rail route, the "Mostly Rail" scenario of the Yucca FEIS could not be implemented on the existing national rail system in combination with the "Mostly Legal-Weight Truck" scenario through Nevada because a vast majority of the rail shipping casks would exceed legal-weight truck limits. To remedy this situation would require either a far greater number of rail shipments using smaller casks than was previously analyzed, or the transfer of radioactive material into smaller shipping casks at intermodal transfer stations (or some combination of these actions). Such shipping scenarios were not analyzed under the Yucca FEIS, so they need to be analyzed under the Nevada Rail EIS.

A. Issues Affecting Private Interests: Under the proposed No Action Alternative, impacts upon Colvin's interests in the Stone Cabin Allotment would be negligible because nuclear waste would primarily be shipped through Nevada to the Yucca Mountain Repository across US Interstate 15 and US Highway 95 south of the Nellis Air Force Range, avoiding the Stone Cabin Allotment by approximately 75 miles.

B. Mitigation of Impacts to Private Interests: There would be no need to mitigate impacts to Colvin within the Stone Cabin Allotment under the proposed No Action Alternative because the significant distance between the Allotment and truck shipping routes renders any impacts negligible.

C. Monitoring of Impacts to Private Interests: There would be no need to monitor impacts to Colvin within the Stone Cabin Allotment under the proposed No Action Alternative because the significant distance between the Allotment and truck shipping routes renders any impacts negligible.

D. Issues Affecting Public Interests: Impacts to the public within the Stone Cabin Allotment under the proposed No Action Alternative are anticipated to be negligible because of the significant distance between the Allotment and truck shipping routes.

E. Mitigation of Impacts to Public Interests: There would be no need to mitigate impacts to the public within the Stone Cabin Allotment under the proposed No Action Alternative because the significant distance between the Allotment and truck shipping routes renders any impacts negligible.

F. Monitoring of Impacts to Public Interests: There would be no need to monitor impacts to the public within the Stone Cabin Allotment under the proposed No Action Alternative because the significant distance between the Allotment and truck shipping routes renders any impacts negligible.

III. Issues Specific to the Selection of the Caliente Rail Route Rather Than Alternative Routes

The Yucca FEIS indicates that the Chalk Mountain Rail Route was relegated to "non-preferred" status early in the analysis process because the Air Force believed it would be unable to adequately adjust its schedule to meet training requirements if a railway bisected the Nellis Air Force Range and Nevada Test Site. In the early analysis period there was talk that several trains would travel the railway each day. In contrast, the Yucca FEIS estimates that at most 3 to 5 trains a week would travel the new Nevada rail system to ship waste casks and other needed items to the Yucca Mountain Repository. It must be assumed that an additional 3 to 5 trains a week would travel the new Nevada rail system to return to the transfer station with empty shipping cars. Thus, the total traffic across the new Nevada rail system under the scenario analyzed by the Yucca FEIS would average 6 to 10 trains a week.

During the Nuclear Waste Technical Review Board's winter board meeting in Caliente, Nevada on February 10, 2005, the DOE disclosed that its Yucca FEIS analysis was based upon the assumption that nuclear waste would primarily be shipped using 125 to 150-ton shipping casks under the "Mostly Rail' scenario. In contrast, such shipments are now expected to occur in smaller casks because subsequent discussions with facilities that spent nuclear fuel will be shipped from revealed that many of them do not have the capability to load and handle such large shipping casks. Thus, the number of trains a week required to transport a greater number of smaller shipping casks is likely to significantly exceed the average 6 to 10 trains a week estimated by the Yucca FEIS.

It is probable that long-term use of the new Nevada rail route will include substantially more rail traffic because additional repository storage will likely be put into service. The Yucca FEIS was limited to the analysis of impacts associated with the transportation and storage of 70,000 metric tons of radioactive waste (spent nuclear fuel and high-level radioactive waste), not because that is the storage limit of the Yucca Mountain area, nor because that is the total amount of radioactive waste that will need to be shipped and stored within the foreseeable future, but because the 1982 Nuclear Waste Policy Act ("NWPA"), as amended, categorically restricted such analysis to an initial repository site designed to store no more than 70,000 metric tons of such waste.

There is already close to 70,000 metric tons of radioactive waste being stored in temporary facilities across the nation, with more being generated each day. Given these facts, it is certain that far more than 70,000 metric tons of radioactive waste will need to be stored in repositories within the foreseeable future. It is very likely, and most logical, that once the initial Yucca Mountain repository site is operating, knowledge about the area's suitability as a radioactive waste storage repository and the infrastructure associated with the initial repository, including the Nevada rail route, will be used to justify expansion or construction of additional repositories at the Yucca Mountain waste storage complex.

When additional storage capacity is put into service at the Yucca Mountain complex, the amount of radioactive waste being shipped to Nevada will increase, either raising the frequency of rail traffic over the railway, extending the amount of time needed for operation, or a combination of both. The Yucca FEIS analyzed and evaluated the emplacement of the total projected inventory of commercial spent nuclear fuel and DOE high-level radioactive waste (119,000 metric tons of heavy metal) at Yucca Mountain under "Inventory Module 1" of its cumulative impacts section, concluding under this scenario that about twice as many shipment casks would be transported over a time period that would be extended by another 14 years, for a total of 20,000 shipping casks transported over a 38 year period. Assuming the initial railway construction takes 4 years and the additional repository storage capacity takes an additional 5 years to be put into service, an average of 3 to 5 trains per week would ship 500 casks a year during years 5 through 9 (after the railway is constructed, but before the additional repository capacity is in service), which equates to an average of 6 to 10 train trips a week including return trips with empty shipping cars. At the end of year 9 about 17,500

shipping casks would be left to be transported in years 10 through 38 (after the additional repository capacity is in service). This would require an average of 4 to 6 train shipments a week over the Nevada railway in years 10 through 38, which equates to an average of 8 to 12 train trips a week including return trips with empty shipping cars. The number of train trips a week could be substantially higher if shipping casks averaging less than 125 to 150-tons each are used.

The rate at which radioactive waste is generated will likely increase once long-term facilities to store such waste are in place. Existing nuclear power plants are likely to increase their output and additional plants are likely to be approved and put into service once the Yucca Mountain Repository is operating. Likewise, the generation of radioactive waste by the DOE and other research facilities will likely increase once long-term facilities to store such waste are in place. Each of these potential future developments would significantly increase the total amount of nuclear waste that would be transported and stored in the foreseeable future. It is not unreasonable to project that in the foreseeable future the number of shipments across the new Nevada railway could increase to an average of 12 to 15 trains per week, for a total of 24 to 30 trains per week including return trips with empty shipping cars. Such an increase in rail traffic would require several train trips each day. Thus, a reasonable analysis of the Nevada rail route alternatives must anticipate up to 4 years of near constant traffic during construction, and at least an additional 34 years of relatively frequent to very frequent train traffic.

During the Nuclear Waste Technical Review Board's winter board meeting in Caliente, Nevada on February 10, 2005, it became evident that the DOE's "Rail Corridor Decision" and prior analyses under the Yucca FEIS failed to recognize numerous private property interests that are associated with the Caliente Rail Route. The DOE's "Rail Corridor Decision" and Yucca FEIS recognized private property interests to the surface estate (deeded lands) which were depicted upon their "Caliente Corridor Land Ownership and Use" map, but failed to recognize other legitimate private property interests associated with land use across the length of the proposed Caliente Rail Route, including water and mineral rights and claims. The failure to understand, recognize, and evaluate potential impacts associated with private property interests other than surface ownership skewed the DOE's conclusions regarding potential land use conflicts to favor the Caliente Rail Route over the Valley Modified Rail Route and other alternative routes.

The DOE's "Rail Corridor Decision" expressed concern over potential conflicts with the "Desert National Wildlife Range and local community plans for development in the greater Las Vegas metropolitan area" associated with the Valley Modified Rail Route, but failed to recognize similar public concerns regarding Visual Resource Management restrictions, wildlife habitat designations, livestock grazing permits, wild horse Herd Management Areas, cultural resources, land disposal, recreation designations, Wilderness Study Areas, and mineral designations that would be impacted by the Caliente Rail Route. Failure to recognize and evaluate such potential impacts skewed

the DOE's conclusions regarding potential land use conflicts to favor the Caliente Rail Route over the Valley Modified Rail Route and other alternative routes.

Colvin encourages reconsideration of the Valley Modified Rail Route because it would require 69% less rail to be constructed and operated than would the Caliente Rail Route. While the Valley Modified route would put the Nevada rail shipments in closer proximity to denser human populations associated with Las Vegas and the surrounding area than would the Caliente Rail Route, it would seem that such concerns were inflated in the DOE's evaluations and decisions given the facts that: 1) shipments will go through areas with equally high human densities as the waste is transported across the existing national rail system in locations such as Denver and Salt Lake City; and, 2) the DOE recognizes that "environmental impacts... do not provide a clear basis for discriminating among alternative rail corridors in Nevada" and the DOE "does not consider the differences among the corridor alternatives to be sufficient to make any of them environmentally preferable." See 69 Fed.Reg. 18563 (4/8/04).

A. Issues Affecting Private Interests: The Valley Modified Rail Route, and other alternatives to the Caliente Rail Route under the Yucca FEIS, would result in negligible impacts upon Colvin's interests in the Stone Cabin Allotment because nuclear waste would primarily be shipped to the Yucca Mountain Repository across routes that would avoid the Stone Cabin Allotment by great distances.

B. Mitigation of Impacts to Private Interests: There would be no need to mitigate impacts to Colvin within the Stone Cabin Allotment under the Valley Modified Rail Route and other alternatives to the Caliente Rail Route evaluated by the Yucca FEIS because the significant distance between the Allotment and shipping routes renders any impacts negligible.

C. Monitoring of Impacts to Private Interests: There would be no need to monitor impacts to Colvin within the Stone Cabin Allotment under the Valley Modified Rail Route and other alternatives to the Caliente Rail Route evaluated by the Yucca FEIS because the significant distance between the Allotment and shipping routes renders any impacts negligible.

D. Issues Affecting Public Interests: Impacts to the public within the Stone Cabin Allotment under the Valley Modified Rail Route and other alternatives to the Caliente Rail Route evaluated by the Yucca FEIS are anticipated to be negligible because of the significant distance between the Allotment and shipping routes.

E. Mitigation of Impacts to Public Interests: There would be no need to mitigate impacts to the public within the Stone Cabin Allotment under the Valley Modified Rail Route and other alternatives to the Caliente Rail Route evaluated by the Yucca FEIS because the significant distance between the Allotment and shipping routes renders any impacts negligible.

F. Monitoring of Impacts to Public Interests: There would be no need to monitor impacts to the public within the Stone Cabin Allotment under the Valley Modified Rail Route and other alternatives to the Caliente Rail Route evaluated by the Yucca FEIS because the significant distance between the Allotment and shipping routes renders any impacts negligible.

IV. Issues Specific to the Caliente Rail Route

Probable increases in the total transportation load to be shipped across the Nevada railway in the foreseeable future must be taken into consideration when evaluating the Caliente Rail Route. As previously discussed, it can reasonably be expected that as many as 24 to 30 trains a week (including return trips with empty shipping cars) could traverse the Caliente Rail Route during its peak intake period in years 10 through 38 of the repository's operation.

A. Issues Affecting Private Interests

1. Private Land: Construction and use of the Caliente Rail Route would adversely impact Colvin's use and control of its deeded lands in the Stone Cabin Allotment south of US Highway 6, particularly those parcels of land highlighted on the "Plat Maps" affixed to Attachment "A" and hereby incorporated by reference because construction of the Caliente Rail Route would severely limit access to said parcels from the north and west. Access to such deeded parcels is already prohibited from the south by the Nellis Air Force Range and from the east by the Kawich Mountain Range. Construction and use of the Caliente Rail Route would create an island isolating these deeded parcels from the rest of the Colvin private land holdings, and access to that island would only be possible by crossing the Caliente railway. The same island effect would impact private holdings of others in the Golden Arrow area that are currently supporting extensive mining activities.

2. Grazing Preference: Construction and use of the Caliente Rail Route would adversely impact Colvin's BLM grazing preference associated with the Stone Cabin Allotment because the railway would diagonally bisect the entire Stone Cabin Valley south of US Highway 6.

Railway construction activities would result in acute disruptions to the distribution and travel patterns of Colvin cattle, wild horses, and wildlife. Such disruptions would intensify animal concentrations around wells and existing water sources to the west of the Rail Route where animal concentrations are presently approaching the level that can be sustained without adversely impacting soils, vegetation, and other natural resources. Furthermore, such disruptions would drive a significant amount of grazing activity away from the south central portion of Stone Cabin Valley that produces the majority of the Allotment's valuable winter forage, pushing the animals further into the foothills where winter forage is sparser and snow depths are greater. The overall result would be a significant decrease in the winter performance and condition of Colvin cattle, and a dramatic

increase in effort and cost to care for and manage cattle dispersed by construction disruptions. Colvin cattle have been born and raised in an open desert environment and are not accustomed to human presence and the noise and movement associated with construction activities. It can reasonably be assumed that Colvin cattle will avoid rail construction activities by staying about 1 mile away. Thus, the 29 mile Rail Route through the Stone Cabin Allotment could potentially displace cattle grazing from 58 square miles (37,120 acres) of the Allotment's prime winter range each year during the construction phase. Depending on how much traffic increases along roads to access the Rail Route during construction, the amount of area from which cattle grazing would be displaced may be significantly greater. Assuming that construction access is made primarily along the main County road that runs through the center of Stone Cabin Valley from US Highway 6 to the Nellis Air Force Range boundary, cattle grazing could be displaced from approximately 83 square miles (53,120 acres) of the Allotment's prime winter range each year during the construction phase.

Use of the Caliente Rail Route would cause chronic disruptions to the distribution and travel patterns of Colvin cattle, wild horses, and wildlife that would be similar to those described above for the construction phase. Desert born and raised Colvin cattle will view the railway as a continuous cattle guard which will act as a barrier and create an island of approximately 168 square miles (107,520 acres) in the southeast corner of the Stone Cabin Allotment between the Rail Route, the Kawich mountains, and the Nellis Air Force Range, virtually eliminating livestock access during the initial 24-year life of the project. Furthermore, it is reasonable to expect that once the Rail Route is in place, it will be used beyond the 24-year life of the initial project, either to service additional repository storage phases which will likely be approved in the Yucca Mountain area, or for commercial purposes after the initial project is complete. Thus, the island created by the Caliente Rail Route can reasonably be expected to eliminate livestock access in the southeast corner of the Stone Cabin Allotment into the indefinite future.

Finally, despite the fact that the Rail Route will effectively serve as a barrier to the free movement of cattle onto the island created in the southeast corner of the Stone Cabin Allotment, and despite the fact that construction and operation activities will drive large numbers of cattle away, some cattle are likely to occasionally loaf or rest on the railway where they could be struck by equipment during construction or by passing trains during operation of the railway.

3. Nevada Grazing Rights: Impacts to Colvin's Nevada grazing rights due to the Caliente Rail Route would be essentially identical to the impacts to Colvin's grazing preference discussed under item #2 above.

4. Range Improvements: Construction and use of the Caliente Rail Route would adversely impact Colvin's interest in those range improvements located within the island that would be created in the Stone Cabin Allotment between the Rail Route, Kawich mountains, and Nellis Air Force Range. The range improvement

projects within such island are indicated with an exclamation mark ("!") on the second page of Attachment "D" attached hereto. The utility of these range improvements to Colvin would be severely impacted during the construction phase, and would be all but eliminated once construction was complete because the Rail Route would function as a continuous cattle guard, blocking livestock access to the southeast corner of the Stone Cabin Allotment.
Construction and use of the Caliente Rail Route would also adversely impact Colvin's interest in those range improvements located within the Stone Cabin Allotment which lie northwest of the Rail Route within approximately 1 mile. Such range improvement projects are indicated with an ampersand ("&") on the second page of Attachment "D" attached hereto. The utility of these range improvements to Colvin would be adversely impacted during construction and operation of the Rail Route because increased human activity, noise, and movement would drive Colvin cattle away from range improvements located within about 1 mile of the railway, significantly reducing their usefulness to the Colvin ranch operation. Such impacts would become more severe as the rail traffic increases to meet foreseeable future transportation needs.

5. Federal Grants: The impacts to Colvin's range improvements described above also apply to improvements authorized under Federal grants pursuant to acts passed between 1866 and 1976.

6. Water Rights: Construction and use of the Caliente Rail Route would adversely impact Colvin's water rights located within the island that would be created in the Stone Cabin Allotment between the Rail Route, Kawich mountains, and Nellis Air Force Range. Colvin water rights associated with Colvin deeded lands located within such island are indicated with an pound sign ("#") on Attachment "E" attached hereto. Additional Colvin water rights located within such island not associated with Colvin deeded lands are indicated with an exclamation mark ("!") on Attachment "E" attached hereto. The utility of these water rights to the Colvin livestock operation would be severely impacted during construction and operation of the Rail Route because the distribution and travel patterns of Colvin cattle would be disrupted, blocking livestock access to the southeast corner of the Stone Cabin Allotment.

Construction and use of the Caliente Rail Route would also adversely impact Colvin's interest in water rights located within the Stone Cabin Allotment which lie northwest of the Rail Route within approximately 1 mile. Such water rights are indicated with an ampersand ("&") on Attachment "E" attached hereto. The utility of these water rights to the Colvin livestock operation would be adversely impacted during construction and operation of the Rail Route because increased human activity, noise, and movement would drive Colvin cattle away from watering facilities located within about 1 mile of the railway, significantly reducing their usefulness to the Colvin ranch operation. Such impacts would become more severe as the rail traffic increases to meet foreseeable future transportation needs.

7. Wildlife, Recreation, Aesthetics, Cultural Resources, Wild Horses, and Wilderness Study Areas: Construction and use of the Caliente Rail Route would adversely impact Colvin's interest in managing the ranch operation within the Stone Cabin Allotment to minimize and mitigate friction between the livestock operation and 1997 RMP/ROD objectives for wildlife, recreation, aesthetic values, cultural resources, wild horses, and Wilderness Study Areas. The Colvin ranching operation is currently in balance with these other multiple uses and 1997 RMP/ROD objectives are being achieved within the Allotment. Construction and use of the Caliente Rail Route would result in disruptions to the distribution and travel patterns of people (including personnel accessing the Nellis Air Force Range and Nevada Test Site, federal management agency personnel, Colvin employees, recreationists, miners, and others), Colvin cattle, wild horses, and wildlife, upsetting the balance that has been achieved between various multiple uses. The Colvin operation would need to be adjusted in unknown ways to restore the balance or to mitigate for new multiple use conflicts that would arise due the shift in use patterns caused by the Rail Route.

8. Monitoring Investment: Construction and use of the Caliente Rail Route would adversely impact Colvin's investment in monitoring, particularly with respect to wild horse distribution, utilization patterns by herbivores including cattle and wild horses, and trend in ecological condition. Construction and use of the railway would result in disruptions to the distribution and travel patterns of Colvin cattle, wild horses, and wildlife as a direct result of the Rail Route bisecting Stone Cabin Valley and altering the accessibility of water, forage, and other resources important to grazing animals. Disruptions and alterations to distribution and travel patterns in turn influence localized grazing intensities (utilization levels) and long-term trend in ecological condition. Because each available water source has a service area with a radius of at least four miles and each existing Vegetation Study Site is located within the intersection of at least one such service area, alterations in animal concentrations at water sources throughout the Stone Cabin Allotment due to construction and use of the Caliente Rail Route would result in corresponding alterations in grazing intensities at existing Vegetation Study Sites within the area. Monitoring efforts would need to be intensified at the 15 Vegetation Study Sites in the Stone Cabin Allotment south of US Highway 6 to determine the magnitude of such alterations in grazing intensity and to adjust management accordingly to insure that 1997 RMP/ROD objectives continue to be achieved in the future. Depending upon the degree of change in grazing patterns, areas that are not presently monitored may experience a significant increase in animal pressure as a result of the railway, requiring new Vegetation Study Sites to be established and monitored.

9. Mining: Construction and use of the Caliente Rail Route would adversely impact mining activity within the Stone Cabin Allotment, particularly within the island that would be created in the southeast corner of the Stone Cabin Allotment between the Rail Route, Kawich mountains, and Nellis Air Force Range, severely

limiting access by equipment needed for mining in the highly active Golden Arrow area.

B. Mitigation of Impacts to Private Interests

Colvin presents a Favored Mitigation scenario and an Optional Mitigation scenario for the Caliente Rail Route below. Mitigation actions common to the Favored and Optional mitigation scenarios are depicted in blue on the map affixed as Attachment "G" hereto and incorporated by reference. Additional mitigation actions specific to the Favored Mitigation scenario are depicted in green on the map in Attachment "G" and additional mitigation actions specific to the Optional Mitigation scenario are depicted in red on the map in Attachment "G."

Common Mitigation Actions Under Both Colvin's Favored and Optional Scenarios: An array of actions must be taken to mitigate impacts to Colvin that will result from construction and operation of the Caliente Rail Route within the Stone Cabin Allotment if either the Favored or Optional mitigation scenario is implemented. Such Common Mitigation Actions are described below.

Common Mitigation Actions:

Fence the Caliente Railway on its northwest side from Warm Springs Pass through Stone Cabin Valley, across Cactus Flat and Ralston Valley to the southwest corner of the Ralston Allotment. See map affixed as Attachment "G" for a conceptual location of this fence. Such fence would prevent grazing animals to the north and west of the Caliente Rail Route from accessing the railway. Colvin desires that its cattle be fenced out of the railway to eliminate the chance that said cattle could be struck by trains transporting nuclear waste, thereby eliminating loss of cattle due to such accidents and, more importantly, eliminating any perceived liability upon Colvin's part in any potential rail accident that might otherwise be attributed to cattle on the track. Consistent therewith, the DOE shall retain all maintenance responsibility for all railway fences during the entire period that the Caliente Rail Route services the Yucca Mountain Repository and shall indemnify and hold Colvin harmless for any estray cattle that access the railway across such fences. Colvin does not intend to access the portion of the Ralston Allotment that would lie between the Caliente Rail Route and the Nellis Air Force Range under either the Favored Mitigation or Optional Mitigation scenario, so the fence on the north side of the railway proposed under the Common Mitigation Actions would be the only fence necessary to prevent cattle from accessing the Nellis Air Force Range once the railway fencing was completed.

Fence both sides of US Highway 6 where it crosses the Stone Cabin and McKinney Tanks Allotments. See map affixed as Attachment "G" for conceptual locations of these fences. The presence of the Caliente Railway would increase

cattle and wild horse concentrations along said highway, significantly increasing the risk of accidents due to motorists striking these animals.
Therefore, Colvin desires that such animals be fenced out of the highway to eliminate the risk of motor accidents due to their presence on the roadway, and, more importantly, to eliminate Colvin's liability that might otherwise be claimed (contrary to Nevada's open range laws) as a result of its cattle on the highway. Consistent therewith, the DOE shall retain all maintenance responsibility for such highway fences during the entire period that the Caliente Rail Route services Yucca Mountain.

Construct two (2) highway underpasses under US Highway 6 to facilitate the movement of cattle across the highway once the highway fences are constructed. See map affixed as Attachment "G" for conceptual locations. Small underpasses are too dark and tunnel-like for desert born and raised cattle to readily pass through, so these underpasses must be large enough to allow such cattle to pass through easily. In general, underpasses sufficient for the movement of desert cattle like Colvin's would be large enough for heavy equipment and semi-trucks to pass through. Therefore, these underpasses should be constructed to allow heavy equipment to pass under the highway.

Fence the low ridge that divides West Stone Cabin Valley from East Stone Cabin Valley starting at US Highway 6 and proceeding northward to a rock outcrop southwest of McIntyre Summit. See map affixed as Attachment "G" for a conceptual location of this fence. Colvin and Stone Cabin Partnership shall share maintenance responsibility for this division fence. The Caliente Rail Route would dramatically alter livestock distribution and travel patterns which would only be partially mitigated by the railway and highway fences described above. To further mitigate such disruptions to existing livestock distribution and travel patterns, grazing use by Colvin and Stone Cabin Partnership must be separated into exclusive use areas. The division fence between the West and East Stone Cabin Valleys would help create such exclusive use areas by providing for exclusive use by Colvin in the East Stone Cabin Valley Unit and exclusive use by Stone Cabin Partnership in the West Stone Cabin Valley Unit. Colvin would also be given exclusive use of the Stone Cabin Valley Unit south of US Highway 6 as part of its exclusive use area. To mitigate for areas within the Stone Cabin Allotment that Stone Cabin Partnership would no longer graze as a result of the Colvin exclusive use areas, Stone Cabin Partnership will receive grazing permits for portions of the currently vacant BLM Ralston Allotment and USFS McKinney Tanks Allotment located north of US Highway 6, providing Stone Cabin Partnership with a total grazing preference at least as large as its current preference.

Construct pipelines from four (4) existing water sources owned and controlled by Colvin for which Colvin holds water right certificates or vested water right claims recognized by the State of Nevada, as follows. Construct a pipeline approximately two miles long from Highway Well northward across US Highway

6 (through the new underpass) to a livestock watering trough. Construct a pipeline approximately two miles long from Twin Mills Well northwesterly to a livestock watering trough. Construct a pipeline approximately two miles long from Cactus Flat #1 Well northward to a livestock watering trough. Construct a pipeline approximately 1.5 miles long from Five Mile Ranch across US Highway 6 through an existing drainage culvert southwesterly to a livestock watering trough. See map affixed as Attachment "G" for conceptual locations for these range improvements. Pipeline materials, labor, and construction costs shall be the DOE's responsibility. Control and ownership of these improvements shall be vested in Colvin through Range Improvement Permits issued subject to FLPMA and Section 4 of the Taylor Grazing Act. Colvin shall bear all maintenance responsibilities for such range improvements upon their completion.

Develop three (3) new wells for which Colvin has applications for the right to appropriate water currently pending before the State of Nevada, as follows. Develop Butte Well in the west-central portion of East Stone Cabin Valley consistent with Colvin's 1995 BLM Range Improvement Permit application. Develop Homestead Well in the north-central portion of Stone Cabin Valley consistent with Colvin's 1995 BLM Range Improvement Permit application. In addition, construct a pipeline approximately two miles long from Homestead Well northward across US Highway 6 (through the new underpass) to a livestock watering trough. Develop Lucky Well in the west-central portion of Stone Cabin Valley consistent with Colvin's 1995 BLM Range Improvement Permit application. In addition, construct a pipeline approximately one mile long from Lucky Well west-southwesterly to a livestock watering trough in the Ralston Allotment. Also, as an alternative to the pipeline from Twin Mills Well, construct a pipeline approximately 3.5 miles long from Lucky Well southeasterly to a livestock watering trough. Such pipeline would be downhill to the trough from Lucky Well, rather than uphill to the trough from Twin Mills Well. See map affixed as Attachment "G" for conceptual locations for these range improvements. Project materials, labor, and construction costs for these range improvements shall be the DOE's responsibility. Control and ownership of these improvements shall be vested in Colvin through Range Improvement Permits issued subject to FLPMA and Section 4 of the Taylor Grazing Act. Colvin shall bear all maintenance responsibilities for such range improvements upon their completion.

Construct a pipeline along the Caliente Rail Route so that Colvin, and others holding existing water rights, can sell excess irrigation and stockwater duties (quantities of water) in their off-seasons to help supply the water needs of the DOE during construction and operation of the Yucca Mountain Repository as well as the water needs of the greater Las Vegas area. See map affixed as Attachment "G" for a conceptual location of this pipeline. Such pipeline should be large enough to accommodate the foreseeable future demands of the Yucca Mountain Repository and the greater Las Vegas metropolitan area that could reasonably be supplied from the watersheds the Caliente Rail Route crosses while meeting existing water demands within such watersheds.

Colvin's Favored Mitigation: In addition to the above Common Mitigation Actions, specific mitigation actions needed to implement Colvin's Favored Mitigation scenario are described below.

The combination of the Common Mitigation Actions and Favored Mitigation Actions would create a Kawich Unit southeast of the Caliente Rail Route that would be reserved for grazing by wild horses and wildlife by excluding grazing by domestic livestock. Excluding domestic livestock from the Kawich Unit would provide enough forage therein to satisfy the forage demand for the combined AML for wild horses in the Stone Cabin, Saulsbury, and Little Fish Lake HMAs and the Little Fish Lake Wild Horse Territory, while continuing to satisfy existing wildlife demands. Creation of the Kawich Unit would be accomplished by fencing the northwest side of the Caliente Railway through the Stone Cabin Allotment to prevent livestock access while providing public access for other purposes across three surface crossings with cattle-guards. All wild horse use within the Stone Cabin, Saulsbury, and both Little Fish Lake wild horse areas would be moved into the Kawich Unit which would have an AML for 536 wild horses. The combination of the Common Mitigation Actions and Favored Mitigation Actions would also create exclusive livestock use areas for Colvin and for Stone Cabin Partnership which would be free from wild horses or have AMLs of zero (0).

Colvin's exclusive use areas would consist of the East Stone Cabin Valley Unit north of US Highway 6, the Stone Cabin Valley Unit south of US Highway 6 and northwest of the Caliente Railway, the South Ralston Unit south of US Highway 6 and north of the Caliente Railway, and the South McKinney Tanks Unit south of US Highway 6, as well as the Wagon Johnnie and Little Fish Lake Allotments in Little Fish Lake Valley. Together, the creation of such exclusive use areas that would be free of wild horse competition, the indemnity to Colvin for estray cattle within the Kawich Unit, the construction of highway fences and underpasses, the development of new pipelines and wells for stockwater, the construction of a pipeline to service the needs of the Yucca Mountain Repository and the greater Las Vegas metropolitan area, the acquisition of the portions of the currently vacant Ralston and McKinney Tanks grazing preferences south of US Highway 6, and reimbursement for additional monitoring expenses (see section C Below) would mitigate all of the impacts of the Caliente Rail Route affecting Colvin and would leave Colvin with a functional ranching operation with a total grazing capacity at least as large as its current preference.

The Stone Cabin Partnership's exclusive use areas would consist of the West Stone Cabin Valley Unit north of US Highway 6, the North McKinney Tanks Unit north of US Highway 6, the Hunts Canyon Unit, and the North Ralston Unit north of US Highway 6, as well as its current USFS Allotment(s). The creation of exclusive use areas that would be free of wild horse competition and acquisition of the portions of the currently vacant Ralston and McKinney Tanks grazing preferences north of US

Highway 6 would leave Stone Cabin Partnership with a functional ranching operation with a total grazing capacity at least as large as its current preference.

Favored Mitigation Actions (in addition to Common Mitigation Actions):

Construct three (3) surface crossings across the Caliente Railway within the Stone Cabin Allotment, as follows. Construct a surface crossing at an unimproved road that crosses the railway a short distance west of Warm Springs Pass. This crossing would provide public access to the Kawich mountains and roads that follow the bench on their northwest slopes. Construct a surface crossing at an unimproved road that crosses the railway to the Golden Arrow area about midway between Flag Well and Twin Mills Well. This crossing would provide public access to the Golden Arrow area, surrounding roads, and the Kawich Wilderness Study Area. Construct a surface crossing at the paved road that crosses the railway in the southwest corner of the Stone Cabin Allotment to provide access to the Nellis Air Force Range. See map affixed as Attachment "G" for conceptual locations for these crossings. Each surface crossing shall include a cattle guard large enough to allow passage of legal-weight semi-trucks and similar heavy equipment (12 feet clearance width, minimum). In the event inadequate DOE fence maintenance allows any Colvin cattle to access the Kawich Unit, gates shall be constructed by DOE at each cattle guard, with a minimum of 20 feet between the gate and the nearest outside cattle guard brace, to allow timely retrieval of such estray cattle. Such gates may be locked at the discretion of Colvin to prevent their use for other purposes, thereby eliminating the risk that they may inadvertently be left open.

Exclude domestic livestock grazing from the Kawich Unit southeast of the Caliente Rail Route and establish an AML for a maximum of 536 wild horses therein. Such AML is equivalent to the combined AMLs of the Stone Cabin (AML= 364), Saulsbury (AML= 40), and Little Fish Lake (AML= 132) wild horse areas. See map affixed as Attachment "G" for a conceptual location of the Kawich Unit. While the Kawich Unit represents approximately 28% of the total acreage within the Stone Cabin Allotment, it produces about 35% of the allotment's total forage, or 6,970 AUMs of the total 19,913 AUM carrying capacity, including suspended AUMs. The combined AML of 536 wild horses would require 6,432 AUMs of forage per year, so the Kawich Unit carrying capacity is sufficient to satisfy the forage demand for all 536 wild horses, if domestic livestock are excluded from the area.
With the exclusion of domestic livestock from the Kawich Unit, stockwater rights located therein would no longer serve their intended function. Therefore, upon implementation of the Common and Favored Mitigation actions herein, Colvin would identify and quitclaim to an affected non-profit wild horse advocacy group, or affected groups as tenants-in-common, the following water rights, as identified in Attachment "E": 7-Beatty Spring; 26-Taylor Well; 34-Haws Canyon Creek; 35-Golden Arrow Well; 36-Kawich Well; and, 38-Divide Well.

Compensate for forage that was previously available to Stone Cabin Allotment permittees, but would be excluded from their use and reserved for use by wild horses and wildlife in the Kawich Unit by setting wild horse AMLs to zero (0) in the following grazing Units created under Colvin's Favored Mitigation scenario: the West Stone Cabin Valley Unit north of US Highway 6; the East Stone Cabin Valley Unit north of US Highway 6; the Stone Cabin Valley Unit south of US Highway 6 and northwest of the Caliente Railway; the eastern portion of the South Ralston Unit south of US Highway 6 and north of the Caliente Railway that lies within the Saulsbury HMA; the Hunts Canyon Unit (the northern part of the Saulsbury HMA); and, the Wagon Johnnie Allotment (includes both the Little Fish Lake HMA and Little Fish Lake Wild Horse Territory). The following grazing Units would remain free of wild horses because they are located outside of delineated HMAs: the portion of the South Ralston Unit south of US Highway 6 and north of the Caliente Railway that lies west of the Saulsbury HMA boundary; the South McKinney Tanks Unit south of US Highway 6; the North McKinney Tanks Unit north of US Highway 6; the North Ralston Unit north of US Highway 6; and, the Little Fish Lake Allotment in Little Fish Lake Valley. See map affixed as Attachment "G" for a conceptual location of these grazing Units.

To further mitigate for areas within the Stone Cabin Allotment that Colvin would no longer graze as a result of the creation of the Kawich Unit and the creation of the Stone Cabin Partnership exclusive use area in the West Stone Cabin Valley Unit, Colvin will receive grazing permits for portions of the currently vacant BLM Ralston Allotment and USFS McKinney Tanks Allotment located south of US Highway 6, providing Colvin with a functional ranching operation with a total grazing capacity at least as large as its current preference.

The annual season-of-use associated with Colvin's grazing permit for the Stone Cabin and Ralston allotments combined shall be from March 1 through June 15 and from October 16 through February 28. An additional 20 cattle shall be authorized annually within both the Stone Cabin and Ralston allotments from June 16 through October 15 to account for stragglers and strays. This will provide Colvin with the flexibility needed to eliminate potential land use conflicts between the Stone Cabin/Ralston allotments and the Wagon Johnnie Allotment which has a season-of-use from May 16 through November 15.

In addition to Colvin's Cactus Flat #3 Well, provide at least eight (8) additional water sources within the portions of the currently vacant BLM Ralston Allotment and USFS McKinney Tanks Allotment located south of US Highway 6 by either conveying to Colvin via quitclaim stockwaters that are determined by the Federal Court of Claims (under the case commonly referred to as the Hage case) to be owned and controlled by the United States by operation of takings actions from the previous permittee, or by constructing new wells and water developments to be owned and controlled by Colvin via Range Improvement Permits pursuant to FLPMA and the Taylor Grazing Act, and associated Nevada water permits.

Colvin's Optional Mitigation: In addition to the above Common Mitigation Actions, specific mitigation actions needed to implement Colvin's Optional Mitigation scenario are described below.

The combination of the Common Mitigation Actions and Optional Mitigation Actions would allow Stone Cabin Allotment cattle to continue grazing the area southeast of the Caliente Rail Route. Wild horse AMLs would not change in the Stone Cabin, Saulsbury, and Little Fish Lake wild horse areas.

Access to the area southeast of the Caliente Rail Route by domestic livestock and the general public would be provided by fencing both sides of the Caliente Railway and constructing seven (7) railroad underpasses to prevent livestock from accessing the railway itself while allowing access to its southeast side. The DOE would construct and maintain said fences and hold Colvin harmless for any estray cattle that enter the fenced railway. Cattle-guards and gates would be constructed at the entrance at one side of each railroad underpass to allow for control of cattle movement. The combination of the Common Mitigation Actions and Optional Mitigation Actions would also create exclusive livestock use areas for Colvin and for Stone Cabin Partnership.

Colvin's exclusive use areas would consist of the East Stone Cabin Valley north of US Highway 6, the Stone Cabin Valley south of US Highway 6 to the Nellis Air Force Range boundary, the eastern half of South Ralston south of US Highway 6 and north of the Caliente Railway, and the South McKinney Tanks Allotment south of US Highway 6. Together, the creation of such exclusive use areas, the construction of highway fences and underpasses, the construction of railroad fences and underpasses, the indemnity to Colvin for estray cattle within the fenced railway, the development of new pipelines and wells for stockwater, the construction of a pipeline to service the needs of the Yucca Mountain Repository and the greater Las Vegas metropolitan area, the acquisition of the portions of the currently vacant Ralston and McKinney Tanks grazing preferences south of US Highway 6 from the Stone Cabin Allotment boundary to about the center of Ralston Valley, and reimbursement for additional monitoring expenses (see section C Below) would adequately mitigate all of the impacts of the Caliente Rail Route affecting Colvin and would leave Colvin with a functional ranching operation with a total grazing capacity at least as large as its current preference.

The Stone Cabin Partnership's new exclusive use areas would consist of the West Stone Cabin Valley north of US Highway 6, the North McKinney Tanks Allotment north of US Highway 6, and the North Ralston Allotment north of US Highway 6. The creation of such new exclusive use areas and acquisition of the portions of the currently vacant Ralston and McKinney Tanks grazing preferences north of US Highway 6 would leave Stone Cabin Partnership with a functional ranching operation with a total grazing capacity at least as large as its current preference.

Optional Mitigation Actions (in addition to Common Mitigation Actions):

Fence the Caliente Railway on its southeast side from Warm Springs Pass through Stone Cabin Valley and across Cactus Flat to the southwest corner of the Stone Cabin Allotment. See map affixed as Attachment "G" for a conceptual location of this fence. In combination with the railway fence to be constructed under the Common Mitigation Actions, the Caliente Rail Route would thus be totally fenced on both sides through the Stone Cabin Allotment. Colvin desires that its cattle be fenced out of the railway to eliminate the chance that said cattle could be struck by trains transporting nuclear waste, thereby eliminating loss of cattle due to such accidents and, more importantly, eliminating any perceived liability upon Colvin's part in any potential rail accident that might otherwise be attributed to cattle on the track. Consistent therewith, the DOE shall retain all maintenance responsibility for such railway fences during the entire period that the Caliente Rail Route services the Yucca Mountain Repository and shall indemnify and hold Colvin harmless for any estray cattle that access the railway across such fences.

Construct seven (7) railroad underpasses, as follows. Construct an underpass at an unimproved road that crosses the railway a short distance west of Warm Springs Pass. Construct an underpass at an unimproved road that crosses the railway due south of Highway Well. Construct an underpass at an unimproved road that crosses the railway north of Midway Well. Construct an underpass at an unimproved road that crosses the railway to the Golden Arrow area about midway between Flag Well and Twin Mills Well. Construct an underpass at an unimproved road that crosses the railway southeast of Twin Mills Well. Construct an underpass at an unimproved road that crosses the railway east of Cactus Flat #1 Well. Construct an underpass at the paved road that crosses the railway in the southwest corner of the Stone Cabin Allotment to provide access to the Nellis Air Force Range. See map affixed as Attachment "G" for conceptual locations of these improvements. These underpasses would provide access by domestic cattle and the general public to the Kawich mountains and roads that follow the bench on their northwest slopes, to the Golden Arrow area and the Stone Cabin Valley southeast of the Caliente Rail Route, including surrounding roads, and to the Kawich Wilderness Study Area.

Small railroad underpasses are too dark and tunnel-like for desert raised cattle to readily pass through, so these underpasses must be large enough to allow such cattle to pass through easily. In general, underpasses sufficient for movement of desert cattle like Colvin's would be large enough for heavy equipment and semi-trucks to pass through. Therefore, these underpasses should be constructed to allow heavy equipment to pass under the railway. Cattle-guards and gates would be required at the entrance at one side of each railroad underpass to allow for control of cattle movement. Each cattle guard needs to be large enough to allow passage of legal-weight semi-trucks and similar heavy equipment (12 feet clearance width, minimum). Each gate needs to be large enough to allow grazing animals to pass through readily. Gates may be locked at the discretion

of Colvin during its livestock grazing season to prevent their use for purposes other than controlling cattle movement, thereby eliminating the risk that they may inadvertently be left open. When not needed to control Colvin cattle movement, such gates would be locked in the open position to allow free passage by wildlife and wild horses through the railroad underpasses.

Develop three (3) new wells for which Colvin holds water right permits with the State of Nevada, as follows. Develop Kawich Well southwest of Warm Springs Pass consistent with Colvin's 1995 BLM Range Improvement Permit application. Develop Golden Arrow Well in the Golden Arrow area of the Stone Cabin Allotment consistent with Colvin's 1995 BLM Range Improvement Permit application. Develop Divide Well to the southeast of the Golden Arrow area in the Stone Cabin Allotment consistent with Colvin's 1995 BLM Range Improvement Permit application. See map affixed as Attachment "G" for conceptual locations of these range improvements. Project materials, labor, and construction costs shall be the DOE's responsibility. Control and ownership of these improvements shall be vested in Colvin through Range Improvement Permits issued subject to FLPMA and Section 4 of the Taylor Grazing Act. Colvin shall bear all maintenance responsibilities for such range improvements upon their completion.

Develop two (2) additional wells, as follows. Develop Midway Well at least 1 mile southeast of the Caliente Rail Route to the southeast of Flag Well. Develop Valley Well at least 1 mile southeast of the Caliente Rail Route to the southeast of Twin Mills Well. See map affixed as Attachment "G" for conceptual locations of these range improvements. Project materials, labor, and construction costs shall be the DOE's responsibility. Control and ownership of these improvements shall be vested in Colvin through Range Improvement Permits issued subject to FLPMA and Section 4 of the Taylor Grazing Act. Colvin shall bear maintenance responsibilities for all such range improvements upon their completion.
To mitigate for areas within the Stone Cabin Allotment that Colvin would no longer graze as a result of the Caliente Rail Route footprint and the creation of the Stone Cabin Partnership exclusive use area in the West Stone Cabin Valley, Colvin will receive grazing permits for portions of the currently vacant BLM Ralston Allotment and USFS McKinney Tanks Allotment located south of US Highway 6 from the Stone Cabin Allotment boundary to about the center of the Ralston Valley, providing Colvin with a functional ranching operation with a total grazing capacity at least as large as its current preference. The annual season-of-use associated with Colvin's grazing permit for the Stone Cabin and Ralston allotments combined shall be from March 1 through June 15 and from October 16 through February 28. An additional 20 cattle shall be authorized annually within both the Stone Cabin and Ralston allotments from June 16 through October 15 to account for stragglers and strays. This will provide Colvin with the flexibility needed to eliminate potential land use conflicts between the Stone Cabin/Ralston allotments and the Wagon Johnnie Allotment which has a season-of-use from May 16 through November 15.

In addition to Colvin's Cactus Flat #3 Well, provide at least 6 additional water sources within the portions of the currently vacant BLM Ralston Allotment and USFS McKinney Tanks Allotment located south of US Highway 6 from the Stone Cabin Allotment boundary to about the center of the Ralston Valley by either conveying to Colvin via quitclaim stockwaters that are determined by the Federal Court of Claims (under the case commonly referred to as the Hage case) to be owned and controlled by the United States by operation of takings actions from the previous permittee, or by constructing new wells and water developments to be owned and controlled by Colvin via Range Improvement Permits pursuant to FLPMA and the Taylor Grazing Act, and associated Nevada water permits.

C. Monitoring of Impacts to Private Interests

Favored Mitigation Scenario: There are currently 31 permanent Vegetation Study Sites in the Stone Cabin Allotment that Colvin generally monitors at least twice annually. Under Colvin's Favored Mitigation Scenario, the Kawich and West Stone Cabin Valley Units would no longer need to be monitored by Colvin, removing 14 Vegetation Study Sites from its monitoring load. However, at least 4 new Vegetation Study Sites would need to be established in the newly created Stone Cabin Valley Unit to monitor grazing influences within that area because locations that are not presently monitored will experience a significant increase in animal pressure as a result of the railway and additional water developments. Also, 16 existing Vegetation Study Sites within the South Ralston Unit would be added to Colvin's monitoring load. Thus, the total number of Vegetation Study Sites that Colvin would need to monitor in association with the Stone Cabin/Ralston Allotments would increase to 37, a 19% increase over the 31 Vegetation Study Sites Colvin currently monitors in the Stone Cabin Allotment. A 19% increase in Colvin's $25,000 annual monitoring investment for the Stone Cabin Allotment equates to an additional $4,750 annual investment. However, the 4 new Vegetation Study Sites that need to be established in the Stone Cabin Valley Unit and the 16 Vegetation Study Sites in the South Ralston Unit that have not been monitored since the allotment has been vacant will require more intensive monitoring efforts until basic grazing patterns in those areas are established and management is adjusted accordingly. Under the Favored Mitigation Scenario, Colvin anticipates that its actual annual monitoring investment will increase by about $6,000 for the first 10 years after the Caliente Rail Route construction begins. Therefore, the DOE shall reimburse Colvin for $6,000 per year for the first 10 years after construction of the Caliente Rail Route begins and shall reimburse Colvin for $4,750 each year thereafter for as long as the railroad is operated to service the Yucca Mountain Repository. Since such reimbursements are based upon today's costs and expenses, they shall be adjusted annually based upon cost-of-living adjustment percentages determined by the U.S. Social Security Administration.

Optional Mitigation Scenario: There are currently 31 permanent Vegetation Study Sites in the Stone Cabin Allotment that Colvin generally monitors at least twice annually. Under Colvin's Optional Mitigation Scenario, the West Stone Cabin Valley Unit would no longer need to be monitored by Colvin, removing 5 Vegetation Study Sites from its monitoring load. However, at least 6 new Vegetation Study Sites would need to be established in Stone Cabin Valley south of US Highway 6 to monitor grazing influences within that area because locations that are not presently monitored will experience a significant increase in animal pressure as a result of the railway and additional water developments. Also, 11 existing Vegetation Study Sites within the South Ralston Unit would be added to Colvin's monitoring load. Thus, the total number of Vegetation Study Sites that Colvin would need to monitor in association with the Stone Cabin/Ralston Allotments would increase to 43, which is a 39% increase over the 31 Vegetation Study Sites Colvin currently monitors in the Stone Cabin Allotment. A 39% increase in Colvin's $25,000 annual monitoring investment for the Stone Cabin Allotment equates to an additional $9,750 annual investment.

However, the 6 new Vegetation Study Sites that need to be established in the Stone Cabin Valley and the 11 Vegetation Study Sites in the South Ralston Unit that have not been monitored since the allotment has been vacant will require more intensive monitoring efforts until basic grazing patterns in those areas are established and management is adjusted accordingly. Under the Optional Mitigation Scenario, Colvin anticipates that its actual annual monitoring investment will increase by about $12,200 for the first 10 years after the Caliente Rail Route construction begins. Therefore, the DOE shall reimburse Colvin for $12,200 per year for the first 10 years after construction of the Caliente Rail Route begins and shall reimburse Colvin for $9,750 each year thereafter for as long as the railroad is operated to service the Yucca Mountain Repository. Since such reimbursements are based upon today's costs and expenses, they shall be adjusted annually based upon cost-of-living adjustment percentages determined by the U.S. Social Security Administration.

D. Issues Affecting Public Interests

The Caliente Rail Route would impact multiple-use relationships and the current balance between land uses, thereby affecting public interests within the Stone Cabin Allotment, particularly interests associated with attainment of 1997 RMP/ROD objectives and SOPs related to: watersheds; vegetation; visual resource management; wildlife habitat management; livestock grazing management; wild horses; lands, rights-of-way, and utility corridors; recreation; Wilderness Study Areas; locatable minerals; and, fire management.

E. Mitigation of Impacts to Public Interests

Favored Mitigation Scenario: Under the Favored Mitigation scenario, creation of the Kawich Unit with its exclusion of domestic livestock grazing and creation of

exclusive use Units for domestic livestock with wild horse AMLs of zero (0) would reduce multiple use conflicts throughout the Stone Cabin Allotment. Thus, impacts to public interests regarding 1997 RMP/ROD objectives and SOPs affected by the Caliente Rail Route would effectively be mitigated.

Optional Mitigation Scenario: Under the Optional Mitigation scenario, multiple use conflicts between domestic livestock, wildlife, wild horses, and other range users would increase in localized areas as a result of disruptions to distribution patterns and travel habits due to the construction and operation of the Caliente Rail Route. While the Optional Mitigation scenario would mitigate impacts to Colvin that would result from construction and operation of the railway, it would not effectively mitigate impacts to public interests regarding 1997 RMP/ROD objectives and SOPs affected by the Caliente Rail Route.

F. Monitoring of Impacts to Public Interests

Extensive monitoring would be required to fully understand and adjust for the various impacts to public interests that may result from the construction and operation of the Caliente Rail Route. Colvin's monitoring is focused upon issues that directly affect its interests, so an evaluation of the impact of the Caliente Rail Route upon monitoring requirements to address unrelated public interests is beyond the scope of these comments.

Supplemental Comments

These supplemental scoping comments clarify the intent behind Colvin & Son, LLC's ("Colvin's") February 22, 2005 scoping comments and describe an interim plan to direct management until such time as all approved mitigation measures are implemented within the Stone Cabin and Ralston allotments. These supplemental comments were prepared to address concerns that were raised by Stone Cabin Partnership (the Clifford family) in response to Colvin's initial February 22, 2005 scoping comments.

The Cliffords' primary concerns with Colvin's initial proposal to mitigate impacts that would result from construction and operation of the Caliente Rail Route were raised in meetings and conversations with Resource Concepts, Inc., and in a recent meeting with Larry Schutte, Colvin's ranch manager. The Cliffords' primary concerns were:

1) The Cliffords believe that the proposed exclusive use area in the West Stone Cabin Valley Unit does not provide them with their proportional share of the Stone Cabin Allotment;

2) The Cliffords believe that no portion of the currently vacant Ralston and McKinney Tanks grazing preferences will be permitted to Colvin & Son, LLC or to Stone Cabin Partnership in the near future because of ongoing litigation between the United States and Hage; and,

3) The Cliffords fear that their grazing use would be confined to the West Stone Cabin Valley Unit without the vacant Ralston and McKinney Tanks preference north of US Highway 6 ever being assigned to them, leaving them with little flexibility to adjust their grazing operation to changing conditions.

From the beginning it was Colvin's intent that all of the "common" and "favored" mitigation actions outlined in it's February 22, 2005 scoping comments would be implemented concurrently as soon as possible upon commencement of Caliente Rail Route construction activities. To the extent any such proposed mitigation actions are not implemented, impacts to the interests of Colvin and others within the Stone Cabin Allotment would not be completely mitigated and the parties would not be left whole.

Colvin holds an active preference of 11,973 AUMs within the Stone Cabin Allotment (65% of the total active forage demand). Stone Cabin Partnership holds an active preference of 1,990 AUMs (11% of the total active forage demand). Wild horses have been allocated 4,368 AUMs within the Stone Cabin Allotment (24% of the total active forage demand).

The West Stone Cabin Valley Unit represents about 22% of the total acreage within the Stone Cabin Allotment and is estimated to produce at least 15% of the allotment's available forage under current conditions. Thus, the West Stone Cabin Valley Unit provides more than the Stone Cabin Partnership's proportional share of the allotment's acreage and more than satisfies their active preference which is only 11% of

the total active forage demand in the allotment. Thus, Stone Cabin Partnership would remain whole without any Ralston or McKinney Tanks grazing preference.

The East Stone Cabin Valley Unit and Stone Cabin Valley Unit together comprise about 50% of the total acreage within the Stone Cabin Allotment and are estimated to produce approximately 50% of the allotment's available forage under current conditions. These two units combined do not provide for Colvin's proportional share of the allotment's acreage and do not satisfy Colvin's active preference which is 65% of the total active forage demand in the allotment. Thus, in order to remain whole under Colvin's favored mitigation scenario, Colvin must receive some of the Ralston and McKinney Tanks grazing preference.

The Kawich Unit represents about 28% of the total acreage within the Stone Cabin Allotment and is estimated to produce at least 35% of the allotment's available forage under current conditions. Thus, the Kawich Unit provides more than the proportional share of the allotment's acreage and forage needed by its wild horses at the Appropriate Management Level of 364 horses (22% of the total active forage demand in the Stone Cabin Allotment). Thus, the Kawich Unit will be used to accommodate wild horses not only from the Stone Cabin HMA, but also from the Saulsbury HMA and Little Fish Lake wild horse areas.

It was never Colvin's intent that Stone Cabin Partnership would be confined within the West Stone Cabin Valley Unit without additional areas available for their use. Colvin has long recognized that year-long use by wild horses within the central region of the Stone Cabin Allotment caused serious competition between wild horses and Stone Cabin Partnership cattle, resulting in a need for the Partnership to increase grazing levels in the West Stone Cabin Valley. The net result of such year-long competition between wild horses and Stone Cabin Partnership cattle has been a reduction in the productivity of forage within both the central region of the Stone Cabin Allotment and portions of the West Stone Cabin Valley.

Colvin desires that the negative impacts arising from year-long competition between wild horses and Stone Cabin Partnership cattle be remedied to allow for resource improvement in affected areas in the Stone Cabin Allotment. Therefore, Colvin's February 22, 2005 scoping comments recommended mitigation measures that would confine wild horses to the southeast side of the Caliente Railway. In a further effort to facilitate resource improvement in areas that have been affected by ongoing year-long competition between wild horses and Stone Cabin Partnership cattle in the Stone Cabin Allotment, Colvin's February 22, 2005 scoping comments recommended mitigation measures that would provide Stone Cabin Partnership with increased opportunities to schedule seasonal rest within the West Stone Cabin Valley by securing additional grazing resources for the Partnership within the Ralston and McKinney Tanks allotments north of US Highway 6.

To insure that the long-term intent of Colvin's February 22, 2005 scoping comments is realized without placing Stone Cabin Partnership at undue short-term risk, Colvin recommends that the following interim management provisions direct

management in the Stone Cabin Allotment from the commencement of Caliente Railway construction until such time as all approved mitigation measures are implemented within the Stone Cabin and Ralston allotments.

Interim Management Provisions

Upon commencement of Caliente Railway construction within the Stone Cabin Allotment, Colvin shall be authorized to graze its full Stone Cabin Preference within the Ralston and McKinney Tanks Allotments until such time as construction of the fence on the northwest side of the railway is completed. During this period, Colvin shall be authorized to trail its cattle through the Stone Cabin Allotment during its moves between Wagon Johnnie and the Ralston/McKinney Tanks allotments, and the entire Ralston and McKinney Tanks allotments shall be available for Colvin's use to allow Colvin to schedule seasonal rest within these allotments as needed. Such grazing by Colvin in the Ralston and McKinney Tanks allotments shall be authorized through a term grazing permit granting the entire vacant preferences of said allotments to Colvin & Son, LLC as soon as possible. Until such term grazing permit is secured by Colvin, such grazing in the Ralston and McKinney Tanks allotments shall be authorized annually through Temporary Non-Renewable grazing authorizations. This interim management provision will reduce competition for forage within the Stone Cabin Allotment during the winter grazing period by moving the vast majority of Colvin's use into adjoining vacant allotments until such time as wild horses can be confined to the southeast side of the Caliente Railway. During this period, the entire Stone Cabin Allotment shall be available for use by the Stone Cabin Partnership.

After the fence on the northwest side of the railway is completed, all wild horse use within the Stone Cabin HMA, Saulsbury HMA, and Little Fish Lake wild horse areas shall be moved to the Kawich Unit (southeast of the railway), the Kawich Unit Appropriate Management Level shall be set to accommodate a maximum of 536 wild horses, and Appropriate Management Levels for wild horses north and west of the railway shall be set to zero. During this period, Colvin shall be allowed to schedule periodic winter use within the Stone Cabin Allotment, south half of the Ralston and McKinney Tanks Allotments, or north half of the Ralston and McKinney Tanks Allotments as needed. This interim management provision will reduce competition for forage within the Stone Cabin, Ralston, and Wagon Johnnie allotments by separating the wild horses from the cattle. It will further reduce competition for forage within the Stone Cabin Allotment during those periods that Colvin schedules to use the Ralston and McKinney Tanks Allotments. During this period, the entire Stone Cabin Allotment north and west of the railway shall be available for use by the Stone Cabin Partnership, but no cattle grazing shall be allowed within the Kawich Unit.

Upon completion of the highway fences, the West/East Stone Cabin Valley division fence, and all other approved mitigation measures, Colvin shall transfer the grazing preference associated with the portions of the Ralston and McKinney Tanks allotments to Stone Cabin Partnership and a range line agreement previously executed by both parties shall become effective. Thereafter, Stone Cabin Partnership shall have the West Stone Cabin Valley Unit, the North Ralston Unit, and

the North McKinney Tanks Unit as exclusive use areas and Colvin shall have the East Stone Cabin Valley Unit, the Stone Cabin Valley Unit, the South Ralston Unit, and the South McKinney Tanks Unit as exclusive use areas. This interim management provision will insure that Stone Cabin Partnership is never confined to the West Stone Cabin Valley Unit without other areas available for their grazing use. Stone Cabin Partnership is thus assured that all of the approved mitigation measures are in place and the preference associated with the North Ralston and North McKinney Tanks Units is secured before the agreement regarding exclusive use areas within the Stone Cabin Allotment becomes effective.

Table 5.31b.3 Stone Cabin Allotment Impacted Features - Colvin

Impacted Features	Common Segment
Stockwaters w/in 4 miles	23
Stockwaters w/in 1 mile	8
Fences (ea)	2
Roads (ea)	
Trails (ea)	12
Pipelines (ea)	
Other	

Table 5.31B.4 Stone Cabin Allotment Mitigation Project Comparison - Colvin

Proposed Mitigation Units	Common Segment	
	Without Fencing	With Fencing
Fence (mi)		81
Gates (ea)		24
Railroad Cattleguards (ea)		2
Road Cattleguards (ea)		12
Road Crossings (ea)		
Trail Crossings (ea)		3
Cattle Crossings (ea)		2
Sheep Crossings (ea)		
Pipeline Construction (mi)		40
Pipeline Crossings (ea)		
Other		
Unspecified Stockwaters		
Troughs (ea)		8
Wells (ea)		3
Springs (ea)		
Other		

Colvin & Sons, LLC is adamant that leaving the right-of-way unfenced is unworkable and unacceptable. They declined to discuss an unfenced alternative and requested that mitigation units for such not be included in the above table. Furthermore, all mitigation units are estimates and cannot be accurately determined until the centerline of the track is staked and design plans are available.

COLVIN ATTACHMENT A

Stewart Title Guaranty Company
Schedule A, Legal Description, Plat Maps

CLTA STANDARD COVERAGE POLICY - 1990
If you want information about coverage or need assistance to resolve complaints, please call our toll free number: 1-800-729-1902. If you make a claim under your policy, you must furnish written notice in accordance with Section 3 of the Conditions and Stipulations.
Visit our World-Wide Web site at: http://www.stewart

Attachment A
(13 pages)

POLICY OF TITLE INSURANCE ISSUED BY

STEWART TITLE
GUARANTY COMPANY

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE EXCEPTIONS FROM COVERAGE CONTAINED IN SCHEDULE B AND THE CONDITIONS AND STIPULATIONS, STEWART TITLE GUARANTY COMPANY, a Texas corporation, herein called the Company, insures, as of Date of Policy shown in Schedule A, against loss or damage, not exceeding the Amount of Insurance stated in Schedule A, sustained or incurred by the insured by reason of:

1. Title to the estate or interest described in Schedule A being vested other than as stated therein;
2. Any defect in or lien or encumbrance on the title;
3. Unmarketability of the title;
4. Lack of a right of access to and from the land;

and in addition, as to an insured lender only:

5. The invalidity or unenforceability of the lien of the insured mortgage upon the title;
6. The priority of any lien or encumbrance over the lien of the insured mortgage, said mortgage being shown in Schedule B in the order of its priority;
7. The invalidity or unenforceability of any assignment of the insured mortgage, provided the assignment is shown in Schedule B, or the failure of the assignment shown in Schedule B to vest title to the insured mortgage in the named insured assignee free and clear of all liens.

The Company will also pay the costs, attorneys' fees and expenses incurred in defense of the title or the lien of the insured mortgage, as insured, but only to the extent provided in the Conditions and Stipulations.

Signed under seal for the Company, but this Policy is to be valid only when it bears an authorized countersignature.

Sanctity of Contract

STEWART TITLE
GUARANTY COMPANY

Stewart Morris Jr.
Chairman of the Board

Malcolm S. Morris
President

Countersigned by:
Tom R. Denhart
Authorized Signatory

COW COUNTY TITLE COMPANY
Company

TONOPAH, NV 89049
City, State

25019281

Page 1 of Policy Serial No. CNJP-1597-596575

151 (Rev. 1-19-91)

CLTA STANDARD COVERAGE

SCHEDULE A

Order Number: 25019281 Premium: $960.00

Date of Policy: September 21, 2000 at 11:21amPolicy No.: CNJP-2228-1597-596575

Amount of Insurance: 250,000.00

1. Name of Insured:
   COLVIN & SON, LLC, a Nevada Limited Liability Company

2. The estate or interest in the land which is covered by this Policy is:
   A FEE

3. Title to the estate or interest in the land is vested in:
   COLVIN & SON, LLC, a Nevada Limited Liability Company

4. The land referred to herein is situated in the State of Nevada, County of Nye, described as follows:

   SEE "LEGAL DESCRIPTION" ATTACHED

STEWART TITLE
Guaranty Company

1512

LEGAL DESCRIPTION

Order No.: 25019281

The land referred to herein is situated in the State of Nevada, County of Nye, described as follows:

TOWNSHIP 5 NORTH, RANGE 45 EAST, M.D.B.&M.

Section 21: The Southeast Quarter (SE1/4) of the Southwest Quarter (SW1/4)

TOWNSHIP 4 NORTH, RANGE 46 EAST, M.D.B.&M.

Section 20: The Northeast Quarter (NE1/4) of the Southwest Quarter (SW1/4)

Section 35: The Northeast Quarter (NE1/4) of the Northeast Quarter (NE1/4)

TOWNSHIP 4 NORTH, RANGE 47 EAST, M.D.B.&M.

Section 11: The North Half (N1/2) of the Northwest Quarter (NW1/4)

TOWNSHIP 5 NORTH, RANGE 47 EAST, M.D.B.&M.

Section 13: The Northeast Quarter (NE1/4) of the Northwest Quarter (NW1/4)

Section 26: The Southwest Quarter (SW1/4) of the Northwest Quarter (NW1/4)

TOWNSHIP 6 NORTH, RANGE 47 EAST, M.D.B.&M.

Section 25: The South Half (S1/2) of the Southeast Quarter (SE1/4)

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STEWART TITLE
Guaranty Company

TOWNSHIP 6 NORTH, RANGE 47 EAST, M.D.B.&M.

H.E. Survey No. 120, embracing a portion of Section 32 and 33 in Township 6 North, Range 47 East of the Mount Diablo Meridian, Nevada, more particularly bounded and described as follows:

Beginning at corner No. 1, from which U.S. Location Monument No. 263, bears South sixteen degrees east seven and nine-tenths chains distance; thence North seventy-eight degrees fifty-seven minutes West ten and forty-four hundredths chains to corner No. 2; thence North thirty degrees thirty three minutes West eight and twenty-nine hundredths chains to corner No. 3; thence North fifty-four degrees ten minutes East eleven and twenty-five hundredths chains to corner No. 4; thence North four degrees fifty-five minutes West twenty-eight and twenty-five hundredths chains to corner No 5; thence South eighty-seven degrees eleven minutes East three and eight-tenths chains to Corner No. 6; thence South two degrees seven minutes West seven and sixty two-hundredths chains to corner No. 7; thence South twenty-nine degrees thirty-two minutes East nine and forty-two hundredths chains to corner No. 8; thence South fifty-one minutes West twenty-seven and eighty-eight hundredths chains to corner No. 1, the place of beginning.

TOWNSHIP 7 NORTH, RANGE 47 EAST, M.D.B.&M.

The H.E. Survey No. 144, embracing a portion of, approximately, Sections 33 and 34 in Township 7 North, Range 47 East of the Mount Diablo Meridian, Nevada, more particularly bounded and described as follows:

Beginning at corner No. 1, from which the North corner to Sections 3 and 4 in Township 6 North of Range 47 East of the Mount Diablo Meridian, bears South sixty-three degrees fifty-one minutes West twenty-four and thirty-one hundredths chains distant; thence, North eighty-four degrees fifty-three minutes West fifty-nine and eighty-hundredths chains to corner No. 2; thence, North twenty-seven degrees forty-eight minutes East ten and thirteen-hundredths chains to corner No. 3; thence, South seventy-nine degrees thirty-two minutes East fifty-seven and

Continued on next page

fifty-two-hundredths chains to corner No. 4; thence South twenty-four degrees thirty-nine minutes West four and twenty-six hundredths chains to corner No. 1 the place of beginning.

TOWNSHIP 3 NORTH, RANGE 48 EAST, M.D.B.&M.

Section 5:	Lot 4 of the Northwest Quarter (NW1/4) and the Southwest Quarter (SW1/4) of the Northwest Quarter (NW1/4)
Section 6:	Lots 1 and 2 of the Northeast Quarter (NE1/4) and the South Half (S1/2) of the Northeast Quarter (NE1/4)

Excepting therefrom that portion conveyed for Highway purposes by Deed recorded November 28, 1938 in Book 47 of Deeds, page 119 as File No. 8784, Nye County, Nevada records.

TOWNSHIP 1 NORTH, RANGE 49 EAST, M.D.B.&M.

Section 2:	Lot 4 of the Northwest Quarter (NW1/4)
Section 3:	Lots 1, 2, and 3
Section 5:	The South Half (S1/2) of the South Half (S1/2)
Section 6:	The North Half (N1/2) of the Southeast Quarter (SE1/4)
Section 22:	The South Half (S1/2) of the Southeast Quarter (SE1/4) and the Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4)
Section 23:	The Northwest Quarter (NW1/4) of the Southwest Quarter (SW1/4)

TOWNSHIP 2 NORTH, RANGE 49 EAST, M.D.B.&M.

Section 7:	The Southwest Quarter (SW1/4) of the Southeast Quarter (SE1/4) and the Southeast Quarter (SE1/4) of the Southwest Quarter (SW1/4)
Section 17:	The Northwest Quarter (NW1/4) of the Northwest Quarter (NW1/4)
Section 33:	The Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4)

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Section 34: The South Half (S1/2) of the Southwest Quarter (SW1/4) and the Northwest Quarter (NW1/4) of the Southwest Quarter (SW1/4)

TOWNSHIP 2 NORTH, RANGE 47 EAST, M.D.B.&M.

Section 14: The Southeast Quarter (SE1/4) of the Northeast Quarter (NE1/4)

TOWNSHIP 9 NORTH, RANGE 48 EAST, M.D.B.&M.

The H.E. Survey No. 108, embracing a portion of, approximate, Sections thirteen, twenty-three, and twenty-four in Township Nine North of Range forty eight east of the Mount Diablo Meridian, Nevada, more particularly bounded and described as follows:

Beginning at corner No. 1, from which U.S. Location Monument No. 251, bears South twenty-eight degrees forty-two minutes West eighty-one chains distant; thence, North fifty-one degrees twenty-five minutes West three and sixteen-hundredths chains to corner No. 2; thence, North sixty-three degrees thirty one minutes East nine and ninety-seven-hundredths chains to corner No. 3; thence, North fifty degrees forty-one minutes East thirty three and eighty-three hundredths chains to corner No. 4; thence North seven degrees thirty-nine minutes West seventeen and fifty-four-hundredths chains to corner No. 5; thence, North sixty-eight degrees nine minutes East twenty-one and twenty-one hundredths chains to corner No. 6; thence, South nine degrees four minutes West nine and three-tenths chains to corner No. 7; thence, South twenty-three degrees twelve minutes West twenty-two and seventy-two-hundredths chains to corner No. 8; thence, South fifty-seven degrees fourteen minutes West twenty-four and twelve-hundredths chains to corner No. 9; thence, South forty-four degrees forty-five minutes West nine and sixteen-hundredths chains No. 10; thence, South seventy-four degrees thirty-four minutes West thirteen and thirty-six-hundredths chains to corner No. 1, the place of beginning.

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TOWNSHIP 9 NORTH, RANGE 48 EAST, M.D.B.&M.

The H.E. Survey No. 84, embracing a portion of, approximately, Section twenty-six in Township nine North of Range forty-eight East of the Mount Diablo Meridian, Nevada, more particularly bounded and described as follows:

Beginning at corner No. 1, from which U.S. Location Monument No. 251, bears South thirty degrees twenty-four minutes West two and seventy-five hundredths chains distant; thence, North sixty-five degrees five minutes East eight and forty-six hundredths chains to corner No. 2; thence, South five degrees forty-two minutes West thirty-eight and twenty-one hundredths chains to corner No. 3; thence, South five degrees twenty-seven minutes East ten and eighty-six-hundredths chains to corner No. 4; thence, South seventeen degrees fifty-seven minutes East thirty one and fifty-seven-hundredths chains to corner No. 5; thence, South eighty-two degrees thirty-five minutes West three and seventy-seven hundredths chains to corner No. 6; thence, North twenty-one degrees forty-seven minutes West thirty-four and seven-hundredths chains to corner No. 7; thence, North thirty-one degrees fifty-six minutes West six and twenty-eight hundredths chains to corner No. 8; thence North twenty-two degrees forty-six minutes East fourteen and twenty-four-hundredths chains to corner No. 9; thence, North nineteen minutes West twenty-five and four hundredths chains to corner No. 1, the place of beginning.

TOWNSHIP 9 NORTH, RANGE 49 EAST, M.D.B.&M.

Section 9:	The East Half (E1/2) of the Southeast Quarter (SE1/4) and the Southeast Quarter (SE1/4) of the Northeast Quarter (NE1/4)
Section 10:	The West Half (W1/2) of the Southwest Quarter (SW1/4) and the Southwest Quarter (SW1/4) of the Northwest Quarter (NW1/4)
Section 15:	The West Half (W1/2) of the Northwest Quarter (NW1/4)

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TOWNSHIP 10 NORTH, RANGE 49 EAST, M.D.B.&M.

Section 2:	Lots 3 and 4 of the Northwest Quarter (NW1/4) and the North Half (N1/2) of the Southwest Quarter (SW1/4) and the Southwest Quarter (SW1/4) of the Southwest Quarter (SW1/4) and the Southeast Quarter (SE1/4) of the Northwest Quarter (NW1/4)
Section 11:	The West Half (W1/2) of the West Half (W1/2) and the Southeast Quarter (SE1/4) of the Southwest Quarter (SW1/4) and the Northeast Quarter (NE1/4) of the Southwest Quarter (SW1/4)
Section 14:	The Northeast Quarter (NE1/4) of the Northwest Quarter (NW1/4) and the East Half (E1/2) of the Southwest Quarter (SW1/4) and the East Half (E1/2) of the Southeast Quarter (SE1/4) and the Southwest Quarter (SW1/4) of the Southwest Quarter (SW1/4) and the Southeast Quarter (SE1/4) of the Northeast Quarter (NE1/4)
Section 22:	The East Half (E1/2) of the Northeast Quarter (NE1/4) and the West Half (W1/2) of the Southeast Quarter (SE1/4)
Section 27:	The West Half (W1/2) of the Southwest Quarter (SW1/4) and the West Half (W1/2) of the Northeast Quarter (NE1/4) and the Northwest Quarter (NW1/4) of the Southeast Quarter (SE1/4) and the East Half (E1/2) of the West Half (W1/2) and the Southwest Quarter (SW1/4) of the Southeast Quarter (SE1/4)

TOWNSHIP 11 NORTH, RANGE 49 EAST, M.D.B.&M.

Section 3:	The South Half (S1/2) of the Northwest Quarter (NW1/4)
Section 4:	The South Half (S1/2) of the Northeast Quarter (NE1/4)
Section 11:	The Northeast Quarter (NE1/4) of the Southwest Quarter (SW1/4)
Section 12:	The Southwest Quarter (SW1/4) of the Southwest Quarter (SW1/4) and the South Half (S1/2) of the Southeast Quarter (SE1/4)

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Section 13:	The Northeast Quarter (NE1/4) and the Northwest Quarter (NW1/4) of the Southeast Quarter (SE1/4) and the East Half (E1/2) of the Southwest Quarter (SW1/4)
Section 24:	The East Half (E1/2) of the Northwest Quarter (NW1/4) and the Northwest Quarter (NW1/4) of the Southwest Quarter (SW1/4)
Section 26:	The West Half (W1/2) of the Southwest Quarter (SW1/4) and the Southeast Quarter (SE1/4) of the Southwest Quarter (SW1/4) and the Southwest Quarter (SW1/4) of the Southeast Quarter (SE1/4)
Section 33:	The Southeast Quarter (SE1/4) of the Northwest Quarter (NW1/4) and the Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4)
Section 35:	The West Half (W1/2) of the West Half (W1/2) and the East Half (E1/2) of the Northwest Quarter (NW1/4)
Section 36:	Tract No. 37, Patent No. 1116192 in unsurveyed Section 36 in Township 11 North, Range 48 East, M.D.B.&M., and in unsurveyed Section 31 in Township 11 North, Range 49 East, M.D.B.&M., as shown on the Official Plat of the survey of said land on file in the General Land Office

TOWNSHIP 12 NORTH, RANGE 49 EAST, M.D.B.&M.

The H.E. Survey No. 119, embracing a portion of, approximately, Sections nineteen and twenty in Township twelve North of Range forty-nine East of the Mount Diablo Meridian, Nevada, more particularly bounded and described as follows:

Beginning at corner No. 1; from which U.S. Location Monument No. 272, bears South sixty-seven degrees nine minutes East one and sixty-six-hundredths chains distant; thence, North sixty-five degrees twenty-nine minutes West thirty-five and ninety-nine-hundredths chains to corner No. 2; thence, North eighty-one degrees fifty-seven minutes West seven and eighty-hundredths chains to corner No. 3; thence, North fifty-eight degrees twenty-nine minutes West forty-five and eighty-hundredths chains to corner No. 4; thence, North nine

Continued on next page

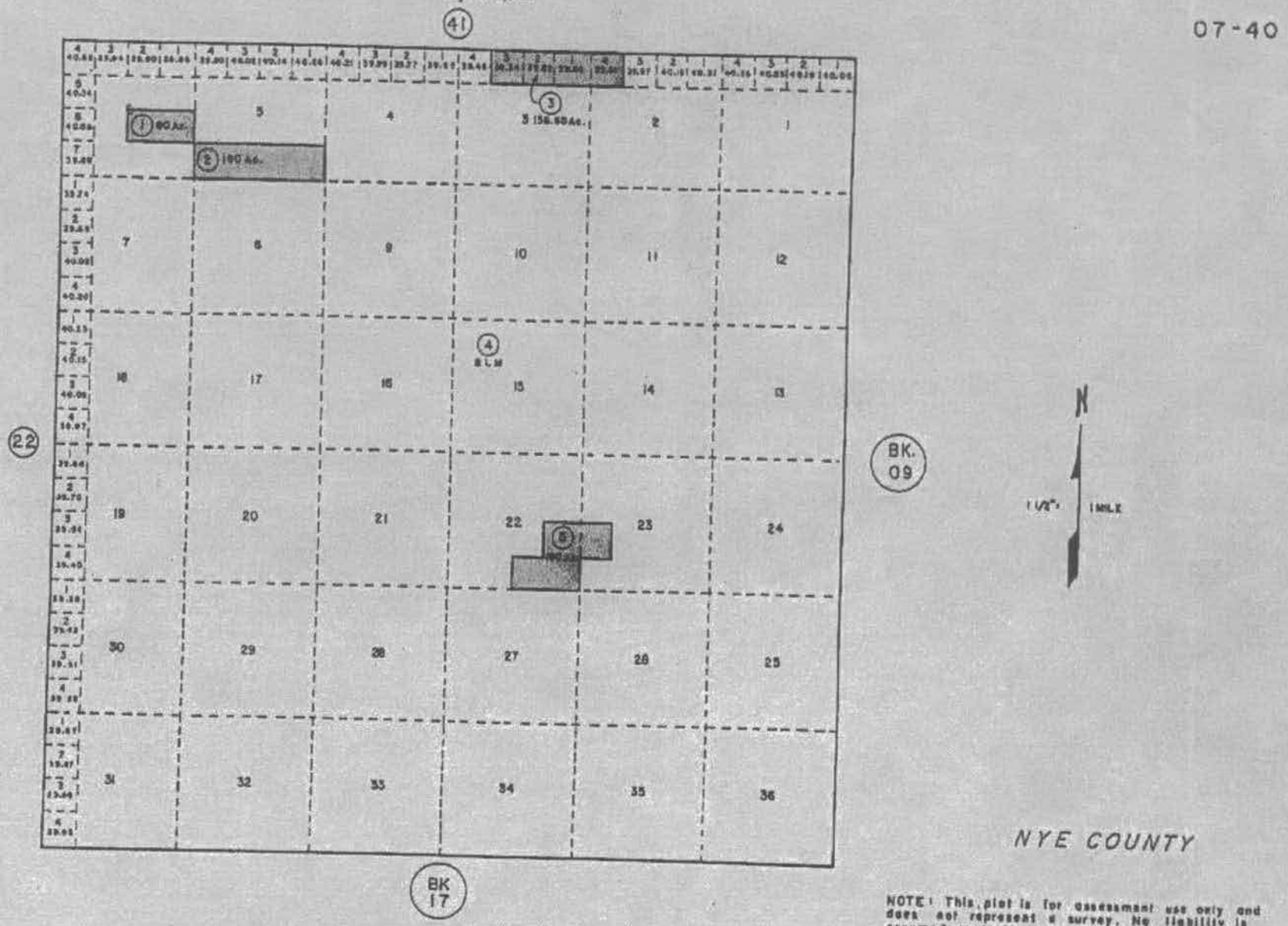
degrees ten minutes East nine and twenty-eight-hundredths chains to corner No. 5; thence, South seventy-three degrees thirty-five minutes East fifteen and fifty-two-hundredths chains to corner No. 6; thence, South forty-one degrees nineteen minutes East fourteen and seventy-three-hundredths chains to corner No. 7, thence South sixty-two degrees thirty-seven minutes East twenty-six and sixty-seven hundredths chains to corner No. 8 thence, North forty-seven degrees fifty-two minutes East twenty-seven and fifty-nine-hundredths chains to corner No. 9; thence, South sixty-nine degrees forty minutes East ten and twenty-seven-hundredths chains to corner No. 10; thence, South thirty-seven minutes West thirty-six and thirty-eight-hundredths chains to corner No. 1, the place of beginning.

TOWNSHIP 11 NORTH, RANGE 50 EAST, M.D.B.&M.

Section 6:	Lot 1 of the Northeast Quarter (NE1/4) and the Southeast Quarter (SE1/4) of the Northeast Quarter (NE1/4) and the East Half (E1/2) of the Southwest Quarter (SW1/4) and the West Half (W1/2) of the Southeast Quarter (SE1/4)
Section 7:	The West Half (W1/2) of the Northeast Quarter (NE1/4) and the East Half (E1/2) of the Northwest Quarter (NW1/4) and the Northeast Quarter (NE1/4) of the Southwest Quarter (SW1/4) and Lot 4 of the Southwest Quarter (SW1/4)

T I N, R49E

07-40

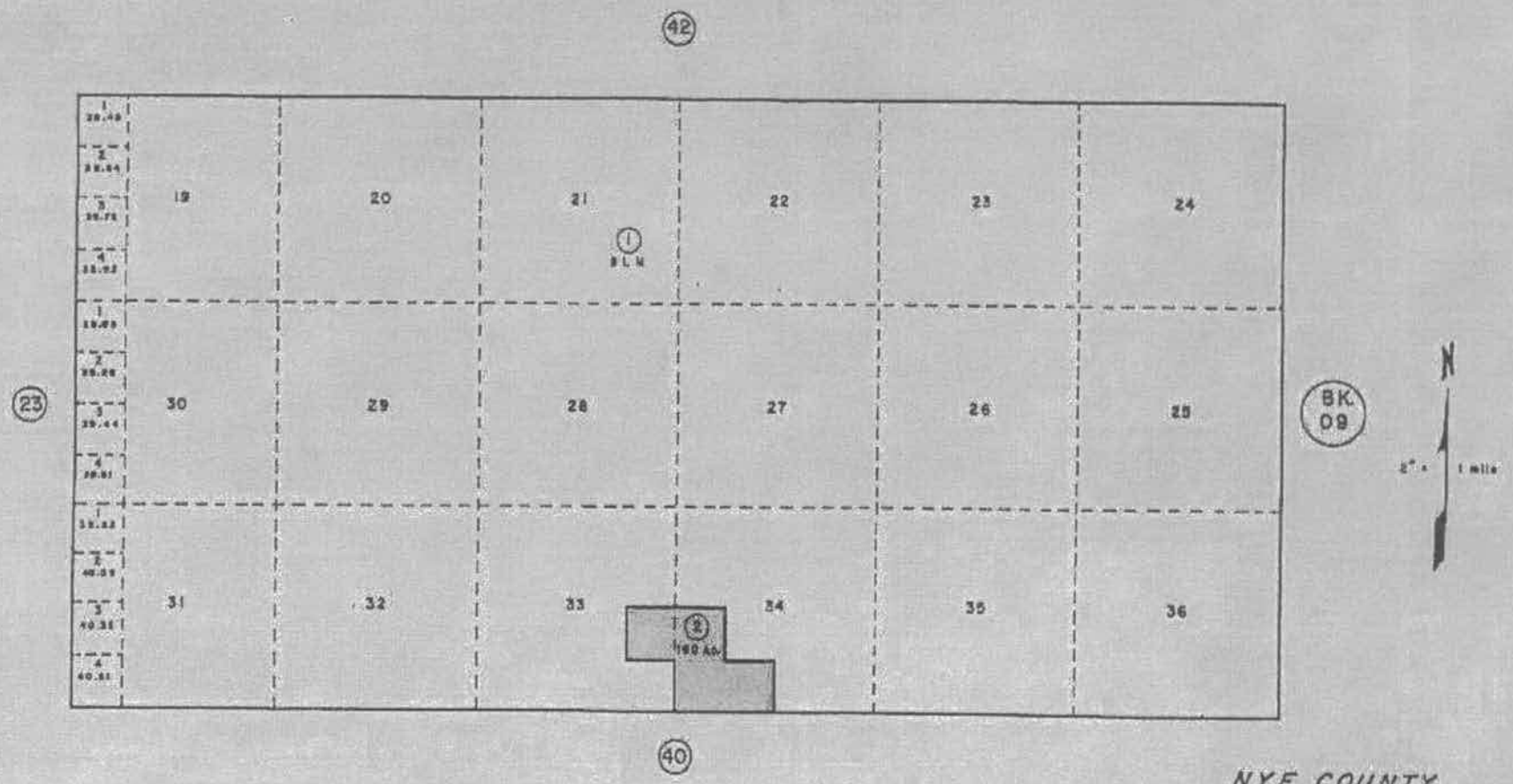


NYE COUNTY

NOTE: This plat is for assessment use only and does not represent a survey. No liability is assumed as to the accuracy of the data delineated hereon.

S½-T 2 N, R49E

07-41



NYE COUNTY

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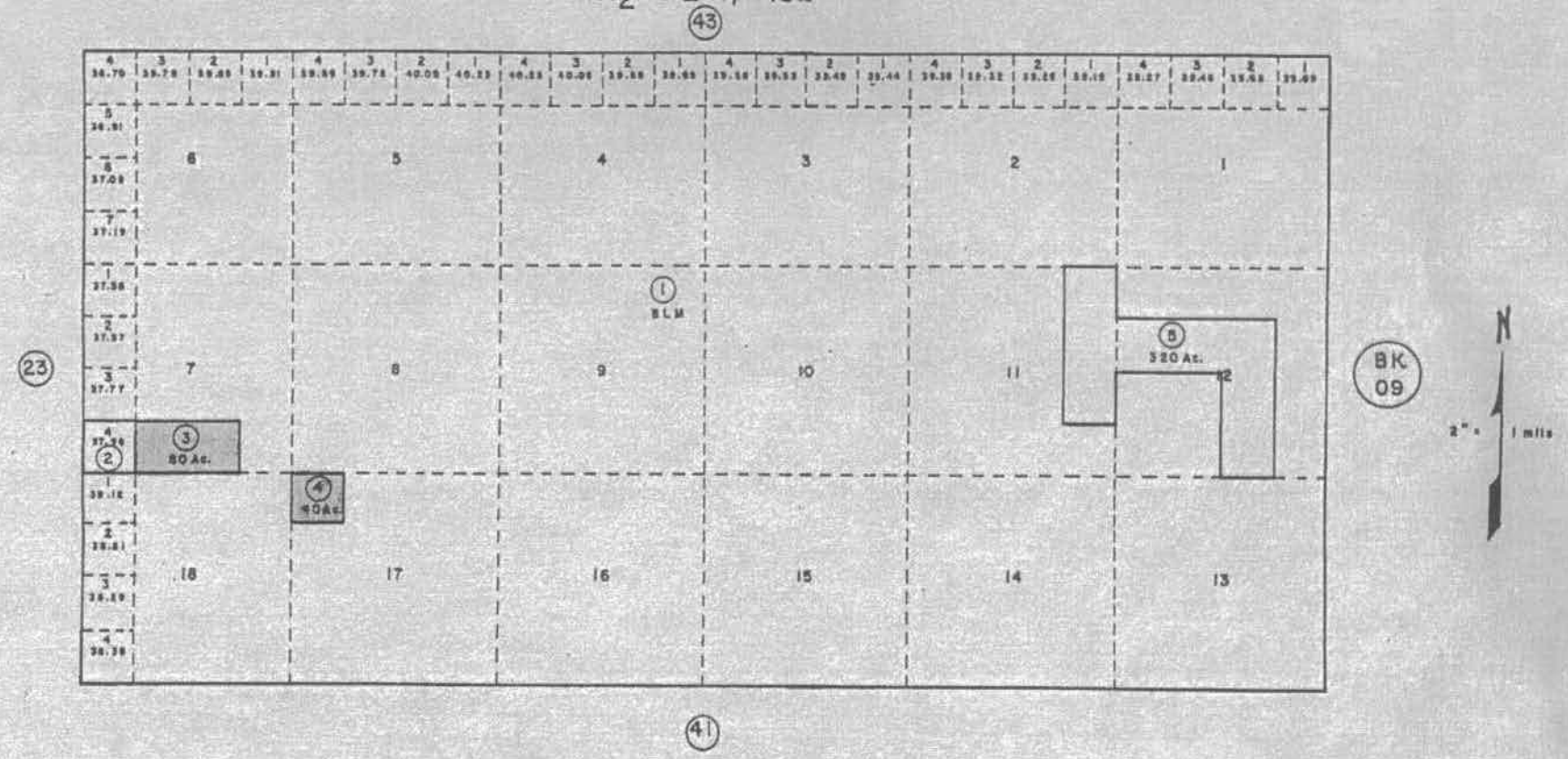
N½ -T 2 N, R49E



NYE COUNTY

NOTE: This plat is for assessment use only and does not represent a survey. No liability is assumed as to the accuracy of the data delineated hereon.

COLVIN ATTACHMENT B

Colvin and Son, LLC Offered BLM Base Property

Exhibit A

COLVIN & SON, LLC OFFERED BLM BASE PROPERTY

Grazing Application, Preference Summary
(Form 4130-1a)

The following described Colvin & Son, LLC. owned lands are offered as the base property for the Wagon Johnnie and Stone Cabin Bureau of Land Management grazing preferences. Such offered owned lands were conveyed by Colvin and Son. to Colvin & Son, LLC, as evidenced by the attached Grant Bargain and Sale Deed, dated August 31, 2000.

TOWNSHIP 3 NORTH, RANGE 48 EAST, M.D.B.&M.

Section 5: Lot 4 of the Northwest Quarter (NW1/4) and the Southwest Quarter (SW1/4) of the Northwest Quarter (NW1/4)

Section 6: Lots 1 and 2 of the Northeast Quarter (NE1/4) and the South Half (S1/2) of the Northeast Quarter (NE1/4)

TOWNSHIP 10 NORTH, RANGE 49 EAST, M.D.B.&M.

Section 2: Lots 3 and 4 of the Northwest Quarter (NW1/4) and the North Half (N1/2) of the Southwest Quarter (SW1/4) and the Southwest Quarter (SW1/4) of the Southwest Quarter (SW1/4) and the Southeast Quarter (SE1/4) of the Northwest Quarter (NW1/4)

Section 11: The West Half (W1/2) of the West Half (W1/2) and the Southeast Quarter (SE1/4) of the Southwest Quarter (SW1/4)

Section 14: The Northeast Quarter (NE1/4) of the Northwest Quarter (NW1/4) and the East Half (E1/2) of the Southwest Quarter (SW1/4) and the East Half (E1/2) of the Southeast Quarter (SE1/4) and the Southwest Quarter (SW1/4) of the Southwest Quarter (SW1/4)

TOWNSHIP 11 NORTH, RANGE 49 EAST, M.D.B.&M.

Section 26: The West Half (W1/2) of the Southwest Quarter (SW1/4) and the Southeast Quarter (SE1/4) of the Southwest Quarter (SW1/4) and the Southwest Quarter (SW1/4) of the Southeast Quarter (SE1/4)

Section 35: The West Half (W1/2) of the West Half (W1/2) and the East Half (E1/2) of the Northwest Quarter (NW1/4)

Attachments: Bargain and Sale Deed, Colvin and Son. to Colvin & Son, LLC, 8/31/00
Articles of Organization of Colvin & Son, LLC, 7/28/00

COLVIN ATTACHMENT C

Colvin and Son, LLC BLM Grazing Permit

Form 4130-3a
(February 1993)

FORM APPROVED
OMB NO. 1004-0041
Expires: November 30, 1995

Attachment C
(2 pages)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GRAZING PERMIT

STATE	NV
OFFICE	065
OPERATOR NUMBER	276100
PREFERENCE CODE	03
DATE PRINTED	02/12/01
TERM	02/12/2001 TO 02/12/2011

COLVIN & SON LLC

TOM COLVIN
HCR 58
RITTER, OR 97872

BUREAU OF LAND MANAGEMENT
TONOPAH R.A.
P.O. BOX 911
TONOPAH, NV 89049-0911

THIS IS NOT A BILL

HIS GRAZING PERMIT IS OFFERED TO YOU BASED ON YOUR RECOGNIZED GRAZING REFERENCE ON THE PUBLIC LANDS AND/OR OTHER LANDS ADMINISTERED BY THE BLM. OU ARE AUTHORIZED TO MAKE GRAZING USE TO THE EXTENT OF YOUR ACTIVE GRAZING REFERENCE AS SHOWN BELOW UPON YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS NCORPORATED HEREIN AND YOUR PAYMENT OF GRAZING FEES.

LLOT PASTURE	LIVESTOCK NUMBER	KIND	GRAZING PERIOD BEGIN	END	%PL	TYPE USE	AUM"S
0079 WAGON JOHNNIE							
	201	CATTLE	05/16	11/15	100	ACTIVE	1216
0082 STONE CABIN							
	2067	CATTLE	03/01	0[illegible]	100	ACTIVE	5165
	20	CATTLE	05/16	11/1[illegible]	100	ACTIVE	121
	1500	CATTLE	10/16	02/2[illegible]	100	ACTIVE	6707

TERMS AND CONDITIONS:

GRAZING WITHIN THE WAGON JOHNNIE ALLOTMENT WILL BE IN ACCORDANCE WITH THE STEWARDSHIP AMP AND CONSENT DECISION DATED MAY [illegible], 1992. GRAZING IN THE STONE CABIN ALLOTMENT WILL BE IN ACCORDANCE WITH THE CONSENT DECISION DATED MAY 11, 1992.

FAILURE TO MAINTAIN ASSIGNED RANGE IMPROVEMENTS IS A PROHIBITED ACT UNDER 43 CFR 4140.1(A)(4),(5) WHICH COULD RESULT IN "... WITHHOLDING ISSUANCE OF A GRAZING PERMIT OR LEASE, OR SUSPEND THE GRAZING USE AUTHORIZED UNDER THE GRAZING PERMIT OR LEASE, IN WHOLE OR PART, OR CANCEL A GRAZING PERMIT OR LEASE..." AS STATED IN 43 CFR 4170.1-1(A)

PERSUANT 43 CODE OF FEDERAL REGULATIONS(CFR)10.4(G) THE HOLDER OF THIS AUTHORIZATION MUST NOTIFY THE AUTHORIZED OFFICER, BY TELEPHONE, WITH WRITTEN CONFIRMATION, IMMEDIATELY UPON THE DISCOVERY OF NATIVE AMERICAN HUMAN REMAINS, FUNERARY OBJECTS, SACRED OBJECTS, OR OBJECTS OF CULTURAL PATRIMONY (AS DEFINEDAT 43 CODE OF FEDERAL REGULATIONS 10.2). FURTHER PERSUANT TO 43 CFR 10.4(C) AND (D), THE HOLDER MUST

CASE FILE

Form 4136-3a
(February 1993)

OI ATOR NUMBER:

FORM APPROVED
OMB NO. 1004-0041
Expires: November 30, 1995

STOP ACTIVITIES IN THE VICINITY OF THE DISCOVERY AND PROTECT IT FOR 30 DAYS OF UNTIL NOTIFIED TO PROCEED BY THE AUTHORIZED OFFICER. THE HOLDER IS RESPONSIBLE FOR THE COST OF CONSULTATION, EVALUATION AND MITIGATION. ANY DECISION ON TREATMENT AND/OR MITIGATION WILL BE MADE BY THE AUTHORIZED OFFICER AFTER CONSULTING WITH THE HOLDER.
FAILURE TO PAY A GRAZING BILL WITHIN 15 DAYS OF THE DUE DATE WILL RESULT IN A LATE FEE OF 10% OF THE BILL AMOUNT (NOT LESS THAN $25.00 OR NO MORE THAN $250.00) 43 CFR 4130.8-1 (F)

SALT BLOCKS WILL BE PLACED MORE THAN ONE MILE FROM WATER DEVELOPMENTS. 43 CFR 4130.3-2(C)
CHANGES REQUIRING THE REISSUE OF A GRAZING BILL AFTER THE BILL HAS BEEN SENT TO THE PERMITEE WILL BE SUBJECT TO A SERVICE CHARGE OF $10.00 PER BILL (43 CFR 4130.8-3).

FAILURE TO PAY A GRAZING BILL WITHIN 15 DAYS OF THE DUE DATE WILL RESULT IN A LATE FEE OF 10% OR THE BILL AMOUNT (NOT LESS THAN $25.00 OR MORE THAN $250.00) 43 CFR 4130.8-1(F)

43 CFR 4120.3-1(A) STATES "RANGE IMPROVEMENTS SHALL BE INSTALLED, USED, MAINTAINED, AND/OR MODIFIED ON PUBLIC LANDS, OR REMOVED FROM THESE LANDS, IN A MANNER CONSISTENT WITH MULTIPLE USE MANAGEMENT."
BIRD LADDERS ARE REQUIRED ON ALL WATER DEVELOPMENTS.
THE TERMS AND CONDITIONS OF THIS PERMIT MUST BE CONSISTENT WITH THE STANDARDS AND GUIDELINES APPROVED FEBRUARY 12, 1997 FOR THE MOJAVE - SOUTHERN GREAT BASIN RESOURCE ADVISORY COUNCIL.
ACTUAL USE REPORTS WILL BE TURNED IN WITHIN 15 DAYS AFTER THE END OF GRAZUNG SCHEDULE (43 CFR 4130.3-2(D).

LLOTMENT SUMMARY (AUM'S)

LLOT		PREFERENCE ACTIVE	SUSP	TOTAL
0079	WAGON JOHNNIE	1219		121
0082	STONE CABIN	11973	417	12390

IS PERMIT ; 1. CONVEYS NO RIGHT, TITLE OR INTEREST IN BY THE UNITED STATES ANY LANDS OR RESOURCES AND 2. IS SUBJECT TO (A) MODIFICATION, SUSPENSION OR NCELLATION AS REQUIRED BY LAND PLANS AND APPLICABLE LAW; (B) ANNUAL REVIEW D TO MODIFICATION OF TERMS AND CONDITIONS AS APPROPRIATE, AND (C) THE TAYLOR AZING ACT, AS AMENDED, THE FEDERAL LAND POLICY AND MANAGEMENT ACT, AS ENDED, THE PUBLIC RANGELANDS IMPROVEMENT ACT, AND THE RULES AND REGULATIONS W OR HEREAFTER PROMULGATED THEREUNDER BY THE SECRETARY OF THE INTERIOR.

CEPTED:
GNATURE OF PERMITTEE: Tom Colvin Jr DATE Feb 13 2001

EA MANAGER: W. Craig MacKinnon DATE Feb 13, 2001

THIS NOTARIZED

CASE FILE

COLVIN ATTACHMENT D

Colvin and Son, LLC BLM Assignment of Range Improvements

Attachment D
(2 pages)

Form 4120-8
(February 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ASSIGNMENT OF RANGE IMPROVEMENTS

INSTRUCTIONS - Prepare four copies. Submit original to assignor and one copy each to the assignee, case or lease file, and District project file.

FOR BLM USE ONLY

State .....
Office .....
Operator No. .....

I HEREBY ASSIGN all my right, title, and interest to *(name of assignee)*

COLVIN & SON, LLC

, in and to the range improvements authorized by the following [X] Cooperative Agreements for Range Improvements (Form 4120-6) and/or [X] Range Improvement Permit (Form 4120-7) project(s) listed below

NUMBER	TYPE**	NAME	LOCATION*

All Range Improvement Permits and Cooperative Agreements for Range Improvements which have been issued to Colvin & Son, or their predecessors in interest, including but not ~~limited to those projects listed in the attached Exhibit A (Stone Cabin Allotment) and~~ Exhibit B (Wagon Johnnie Allotment)

Date
08/31/00

Signature of Assignor Tom Colvin Jr
Tommy Colvin, Jr. for Colvin & Son

I, Colvin & Son, LLC, assignee named in the above assignment of [X] Cooperative Agreements for Range Improvements [X] Permits do hereby agree to be fully bound by all the terms and provisions of the said [X] Cooperative Agreements for Range Improvements [X] Permits and the regulations under which they were issued to the same extent and in the same manner as the assignor herein.

Tom Colvin Jr
Tommy Colvin, Jr. for Colvin & Son, LLC
(Assignee's Signature)

Assignment approved _____
(Date)

08/31/00
(Date)

By _____
(Signature)

*Give legal description

**Type of authorization: A = Cooperative Agreement; P = Permit

USGPO 1998 673-004/41097

Exhibit A

Colvin & Son - BLM Range Improvements
Stone Cabin Allotment (00082)

Sorted by: Project Type then Project Number

	RANGE IMPROVEMENT PROJECT				
	PROJECT NUMBER(s)	TYPE RIP*	TYPE CA**	PROJECT DATE	PROJECT NAME
	0020 ?	x			Flag Well [T3N R48E 32 NE NW]
	0048 ?	x			McIntyre Reservoir
!	0629 ?	x			Colvin Corrals
	0630	x		9/20/66	Highway Well [T4N R49E 32 SW NE]
&	4189	x		2/24/55	Cactus Flat Well #1 (Also known as Reed's Ranch Well #1) [T1N R47E 30 NE NE]
&	4295	x		2/24/55	Twin Mills Well and Corral [T1N R47E 2 NW NW]
	4415	x			Two Mile Canyon Corral
	?		x	10/12/70	Willow Creek Division Fence (Colvin and Clifford)
	?		x		Yellow Cone Fence Extension (Colvin)
	0141, 0169		x	10/3/69	Italian Spring and Pipeline Extensions (0141 is less than 1 mile long, 0169 is 2 miles long) [T6N R49E 4 SE SE through Sections 5&6]
	0428		x	10/3/69	Yellow Cone Fence (Colvin and Hage)
!	0496		x	10/3/69	Taylor Well [T1N R48E 32 SE NW
	0564		x	2/10/67	Two Mile Pipeline (Colvin and Clifford)
!	3523		x	11/10/69	Haws Canyon Pipeline
!	4135, 0454		x	11/10/69	Haws Canyon Pipeline and Extension
	4177		x		Yellow Cone Cattleguard
	4178		x	2/9/67	Stone Cabin Ditch (Colvin and Clifford)
	4208		x	11/26/73	Willow Creek Fence (Colvin and Clifford)
	4424		x	4/30/75	Italian Springs Horse Trap (all SC users)
!	4425		x	4/30/75	Haws Canyon Horse Trap (all SC users)

* RIP = Range Improvement Permits (Section 4 Permits).
** CA = Cooperative Agreements.

COLVIN ATTACHMENT E

Colvin and Son, LLC Abstract of Active Rights

COLVIN & SON LLC ABSTRACT OF ACTIVE RIGHTS

Colvin & Son only

01/27/2005

	RCD	SERIAL	CHANGE	STATUS	OWN OF REC	PRIORITY	SOURCE	ANT CFS	DUTY	USE	UNITS	POINT OF DIVERSION	PLACE OF USE	ACTION DUE	REMARKS
	1	02361		CLAIM	COLVIN & SON,LLC	<1902	FIVE-MILE SPRING	0.01		S	300C	0348 06 NWNE			FILED 8/25/19; 2 RESERVOIRS; MAP
	2	02362		CLAIM	COLVIN & SON,LLC	<1902	STONE CABIN CR.CHA	0.04	2.19 MGA	S	1000C,100H	0448 34 NESE			EARTHEN RESERVOIR;SEE ALSO 47795,47796;382(D)46,NYE CO.
&	3	02363		CLAIM	COLVIN & SON,LLC	<1915	CACTUS FLATS1 WELL	0.04		S	1000C,100H	0147 10 NENE			WELL,WINDMILL,AUX.GAS PUMP;REED RCH;382(D)46,NYE CO.
&	4	02365		CLAIM	COLVIN & SON,LLC	<1916	TWIN MILLS WELL	0.04	8.03 MGA	S	1000C,100H	0147 02 L3 (NENW)			WELL, WINDMILL;382(D)46,NYE CO.
	5	02366		CLAIM	COLVIN & SON,LLC	<1915	CACTUS FLATS3 WELL	0.04	8.03 MGA	S	1000C,100H	0146 09 NWNE			PUMP JACK,TANK,TROUGHS;382(D)46;RALSTON ALLOT.AMEND DEC,2004
#	6	02377		CLAIM	COLVIN & SON,LLC	<1880	BREEN SPRING	0.05		S	1000C,500H	0149 23 SWSW			EARTH BASIN; MAP
!	7	02378		CLAIM	COLVIN & SON,LLC		BEATTY SPRING	0.02		S		0149 28 SENW			MAP
#	8	02379		CLAIM	COLVIN & SON,LLC	<1880	HAWS CREEK SPRING	0.025	5.84 MGA	S	800	0149 03 NWNW			FILED 1/25/1951; BASIN; MAP
	9	02859		CLAIM	COLVIN & SON,LLC	<1900	L.FISH LAKE VALLEY	29.527	4724.24AF	I,S,D	1181.06 AC	1250 31 SESE	POR 4 TPS		NUMEROUS PODs;MAP;5 SHEETS;+1982 AFFIDAVIT OF BOB WILLIAMS
	10	03866		CLAIM	COLVIN & SON,LLC	<1902	STONE CABIN CREEK	0.01	1.28 MGA	S	300 C	0448 34 NESE			DUG RESERVOIR, 60 FT.DIA;8 FT.DEEP;SEE ALSO 47795,47796
	11	04625		CLAIM	COLVIN & SON,LLC	<1905	LONGSTREET SPRING	0.065	45 AF	I,S,D	10 AC	0747 31,34	POR 33,34		FILED 12/03/1987;MEADOW PASTURE;ALSO STOCK(SEE 62149)
	12	2560		C 8023	COLVIN & SON,LLC	19121121	WHITESIDE LAKE	2.0	154.29 AF	I,D	51.43 AC	1049 22 SWSE	POR SW 27		MAP
#	13	4310		C 7183	COLVIN & SON,LLC	19170217	HAWS CANYON SPR.#1	0.025		S	810 C	0249 17 NWNW			MAP;WITH PIPE LINES?
#	14	4311		C 7184	COLVIN & SON,LLC	19170217	HAWS CANYON SPRING	0.025		S	810 C	0249 07 SWSW			MAP
	15	4312		C 7182	COLVIN & SON,LLC	19170217	COYOTE HOLE SPRING	0.00625	1.46 MGA	S	200 C	0247 14 SENE			DITCH TO TROUGH
	16	4315		C 7185	COLVIN & SON,LLC	19170217	FOUR-MILE SPRING	0.025		S	810 C	0447 11 NWNW			MAP;MAY BE PIPE LINE
	17	4316		C 7186	COLVIN & SON,LLC	19170217	SIDE HILL SPRING	0.025		S	810 C	0547 26 SWSW			MAP;MAY INCLUDE POND
	18	4317		C 7187	COLVIN & SON,LLC	19170217	POINT OF ROCKS SPR	0.025		S	810 C	0547 13 NENW			MAP
	19	4318		C 7189	COLVIN & SON,LLC	19170217	WARM SPRINGS	0.025		S	810 C	0647 25 SWSE			MAP
	20	4351		C 1721	COLVIN & SON,LLC	19170310	IRON SPRING	0.008		S	250	0849 10 SWSE			FROM DWR DATABASE;+ RESERVOIR
#	21	4536		C 1067	COLVIN & SON,LLC	19170801	HAWS CREEK,SPRINGS	0.5519	264.91 AF	I,D	55.19 AC	0249 15 SWSW	POR 34,35,2,3		MAP
	22	4689		C 794	COLVIN & SON,LLC	19171109	ITALIAN SPRING	0.012	2.83 MGA	S	180C,1000S	0649 04 SESE			FROM DWR DATABASE; + 3 MILES PIPE LINES
	23	13544		PERMIT	COLVIN & SON,LLC	19501116	RIM ROCK WELL	0.032	4.51 MG	S	1000C,50H	0549 17 SESW	SESW 17	20050104 C,B	NEGOT.W/USFS;IN BOX CANYON;1M MI.N.HOT CREEK;SEE 67625
	24	13549		C 4228	COLVIN & SON,LLC	19501116	FLAG WELL	0.031	7.3 MGA	S	1000C	0348 32 NENW	NENW 32		FROM DWR DATABASE,150'WELL,6"CASING,WINDMILL,STOR.TANK,TROUG
	25	42646		C11644	COLVIN & SON,LLC	19801015	ANDERSON SPRING	0.05	11.75 MGA	S	1600 C	1149 11 NESW	POR 11,12,13		WILLIAMS RANCH;11,500 FT,2"PLASTIC PIPE,3 TROUGHS,POND;MAP
!	26	45271		C12305	COLVIN & SON,LLC	19820261	TAYLOR WELL	0.007	1.65 MGA	S	400 C	0148 32 SENW	SENW 32		10,000 GAL.STOR.TANK,300 GAL.TROUGH; SEE ALSO 46772
	27	45862		C11451	COLVIN & SON,LLC	19820621	HIGHWAY WELL	0.0312	7.3 MGA	S	1000 C	0449 32 SWNE	SWNE 32		UNKNOWN DEPTH;5 HP PUMP JACK,STOR.TANK,TROUGH;SEE 13548
	28	46740		APPLPRO	COLVIN & SON,LLC	19830318	HOT CREEK	0.05		S	1617 C	0849 21 NESE	POR 20,21,22	19830910RFA	PROTEST BY RUSSELL:"WATER BEING ADJUD'D, #14428 IS SENIOR"
	29	46741		APPLPRO	COLVIN & SON,LLC	19830318	PAGE SPRING	0.05		S	1617 C	0849 28 NWNW	NWNW 28	19830910RFA	PROT.BY RUSSELL:"WATER BEING ADJUD'D,#14428 IS SENIOR
	30	46742		APPLPRO	COLVIN & SON,LLC	19830318	UPPER WARM SPRING	0.05		S	1617 C	0849 21 SESW	SESW 21	19830910RFA	PROT.BY RUSSELL:"WATER BEING ADJUD'D, " " SEE ALSO 03189
	31	46743		APPLPRO	COLVIN & SON,LLC	19830318	PAT SPRING	0.05		S	1617 C	0849 21 NESE	NESE 21	19830910RFA	PROT.BY RUSSELL:"WATER BEING ADJUD'D, " " SEE ALSO 03188
	32	47795		PERMIT	COLVIN & SON,LLC	19840314	STONE CABIN CR	0.05		S	1617 C	0448 34 NESE	NESE 34		ALSO 02362,03866;PROTEST OVERRULED,FEB,2003;PC,PBU DEC.04
	33	47796		PERMIT	COLVIN & SON,LLC	19840314	STONE CABIN CR	0.05		S	1617 C	0448 34 SENE	SENE,NESE 34		ALSO 02362,03866;PROTEST OVERRULED,FEB,2003;PC,PBU DEC.04
!	34	48204		C12317	COLVIN & SON,LLC	19840713	HANES CANYON CREEK	0.05	11.8 MGA	S	1617 C	0248 11 SWSE	SWSE 11		FROM DWR DATABASE
!	35	58111		PERMIT	COLVIN & SON,LLC	19920923	GOLDEN ARROW WELL	0.05	11.8	S	1620 C	0248 33 SWNW	POR 32,33,5	20050326 C,B	NEGOTIATING WITH BLM;EOT FILED 4/11/01;NEARBY:30312,43387MN
!	36	58112		PERMIT	COLVIN & SON,LLC	19920923	KAMICH WELL	0.05	11.8 MGA	S	1620 C	0349 01 SWNE	POR 3/49, 4/49	20050326 C,B	NEGOTIATING WITH BLM;EOT FILED 4/11/01
	37	58113		APPLPRO	COLVIN & SON,LLC	19920923	BUTTE WELL	0.05		S	1620 C	0548 14 NENW	NENW 14	199211157RFA	PROTESTED BY CLIFFORD;COMMON USE,WOULD ATTRACT WILD HORSES
!	38	58114		PERMIT	COLVIN & SON,LLC	19920923	DIVIDE WELL	0.05	11.8 MGA	S	1620 C	0148 11 NENW	NENW 11	20050326 C,B	NEGOTIATING WITH BLM; EOT FILED 4/11/01
	39	58598		APPL	COLVIN & SON,LLC	19930309	LUCKY WELL	0.05		S	1620 C	0247 07 SENE	7,8,17-20	19930604RFA	BLM REQUESTING W INTEREST;COMMON USE WITH STONE CABIN

** I-IRRIG; MM-MINING/MILLING; S-STOCK; IND-INDUSTRIAL; D-DOMESTIC **

Attachment E
(2 pages)

RCD	SERIAL	CHANGE	STATUS	OWN OF REC	PRIORITY	SOURCE	AMT CFS	DUTY	USE	UNITS	POINT OF DIVERSION	PLACE OF USE	ACTION DUE	REMARKS
40	58909		APPL	COLVIN & SON,LLC	19930608	HOMESTEAD WELL	0.05		S	1620 C	0348 03 LI	POR 2,3,4	19930918RFA	BLM REQUESTING % INTEREST;COMMON USE WITH STONE CABIN
41	62349	48805	C15877	COLVIN & SON,LLC	19850130	LONGSTREET SPRING	0.018		S	1617 C	0747 32 NWSE	POR 32,33(HES144)		300 FT.1%"PIPE,6'DIA.TROUGH,400 GAL/CFD,CFU 48805;SEE 04625
42	67823		PERMIT	COLVIN & SON LLC	20010717	SEVEN MILE WELL	0.0344		S	1,100C	1250 05 NWSE	POR 05		PC,PDU FILED 7/19/04;#09344(GARDNER)SAME SOURCE
43	67824		PERMIT	COLVIN & SON LLC	20010717	7 MILE WASH WELL	0.0344		S	1617 C	1250 18 SESE	POR SW 18	20050802 C	SENT REQUEST TO CORRECT TYPE ERROR: (S; SEC.18, NOT 08)
44	67825	13544	APPLPRO	COLVIN & SON LLC	19501116	BOX CANYON WELL	0.032		S	1000C,50H	0849 18 SENE	SENE 18	20011015RFA	PROT.BY USFS("NO AUTHORIZATION")ADD'L INFO SUPPLIED 2/21/03
45	71659		APPLN	COLVIN & SON,LLC	20040907	NORTH VALLEY WELL	3.0		I	360 AC	1150 06 NESW	POR 6,7		POR ALSO IRRIGATED BY #02859
46	71660		APPLN	COLVIN & SON,LLC	20040907	MIDDLE VALLEY WELL	4.0		I	480 AC	1150 07 SWSW	POR 7,12,13		POR ALSO IRRIGATED BY #02859
47	71661		APPLN	COLVIN & SON,LLC	20040907	FISH LAKE RANCH WL	7.4		I	880 AC	1149 26 SESW	POR 26,35,2,11,14		POR ALSO IRRIGATED BY #02859
48	71662		APPLN	COLVIN & SON,LLC	20040907	UPPER FISH LAKE WL	3.7		I	440 AC	1049 22 SWSE	POR 22,27		POR ALSO IRRIGATED BY #02859, 2560
49	71663		APPLN	COLVIN & SON,LLC	20040907	LOWER FISH LAKE WL	2.7		I	320 AC	0949 10 SWNW	POR 9,10,15		POR ALSO IRRIGATED BY #02859

Count= 49

** I=IRRIG; MM=MINING/MILLING; S=STOCK; IND=INDUSTRIAL; D=DOMESTIC **

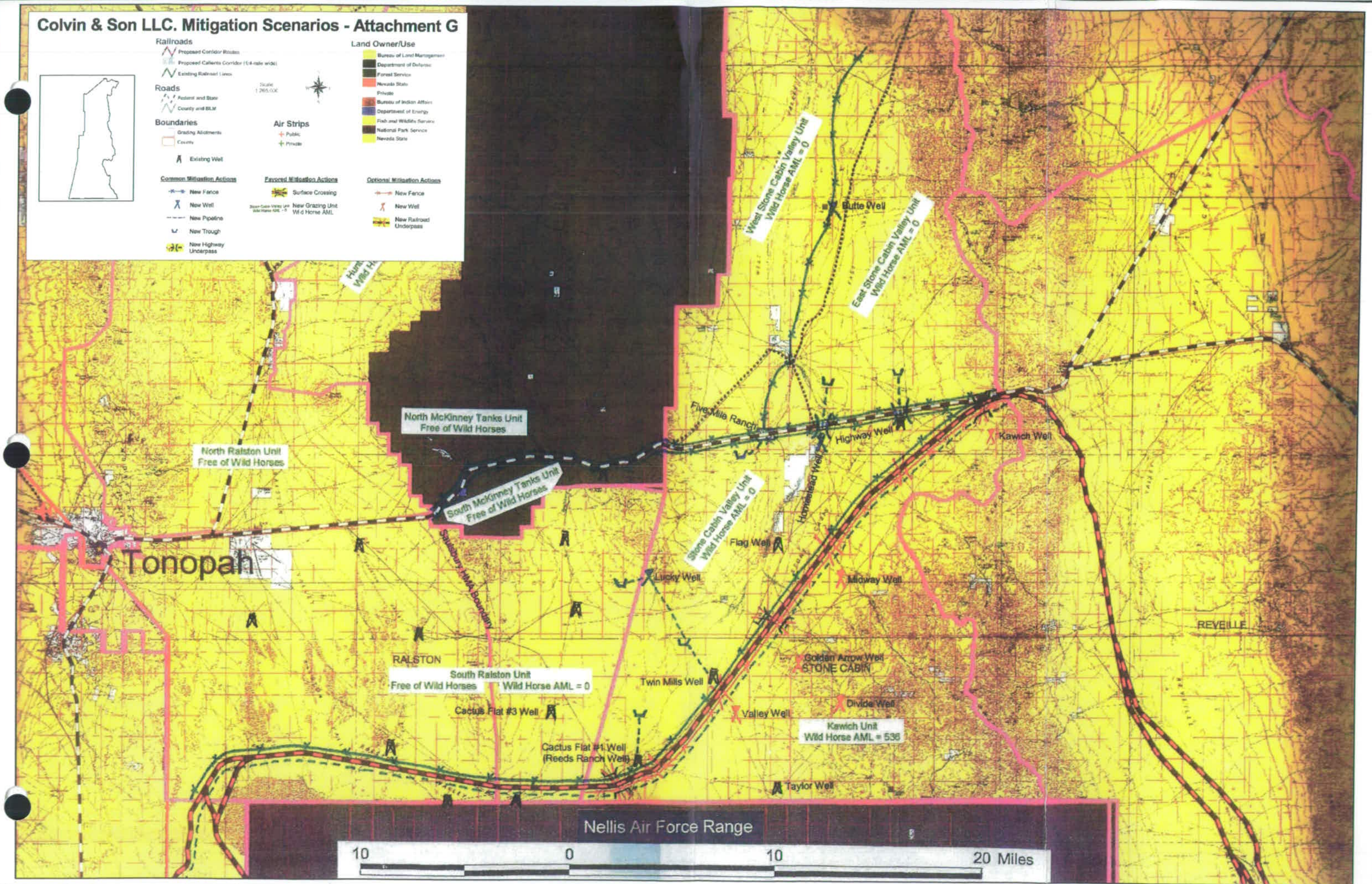
COLVIN ATTACHMENT F

Tonopah Resource Management Plan and Record of Decision: See Appendix A

COLVIN ATTACHMENT G

Colvin and Son, LLC Mitigation Scenarios Map

Colvin & Son LLC. Mitigation Scenarios - Attachment G



5.32 RALSTON ALLOTMENT

Permittee: None

5.32.1 Existing Situation

The railroad would enter the Ralston Allotment at the southeastern corner and extend west and parallel to the southern boundary of the allotment. At the southwestern corner there are two proposed route options labeled Track 1 and Track 2 on Figure 5.32.1. See Table 5.32.1 and Figure 5.32.1 for details of the allotment boundary and track routes.

Table 5.32.1 Ralston Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
381,607	5,722	N/A			ML1	
					18.62	466
Total – 387,328					ML2	
					19.66	492

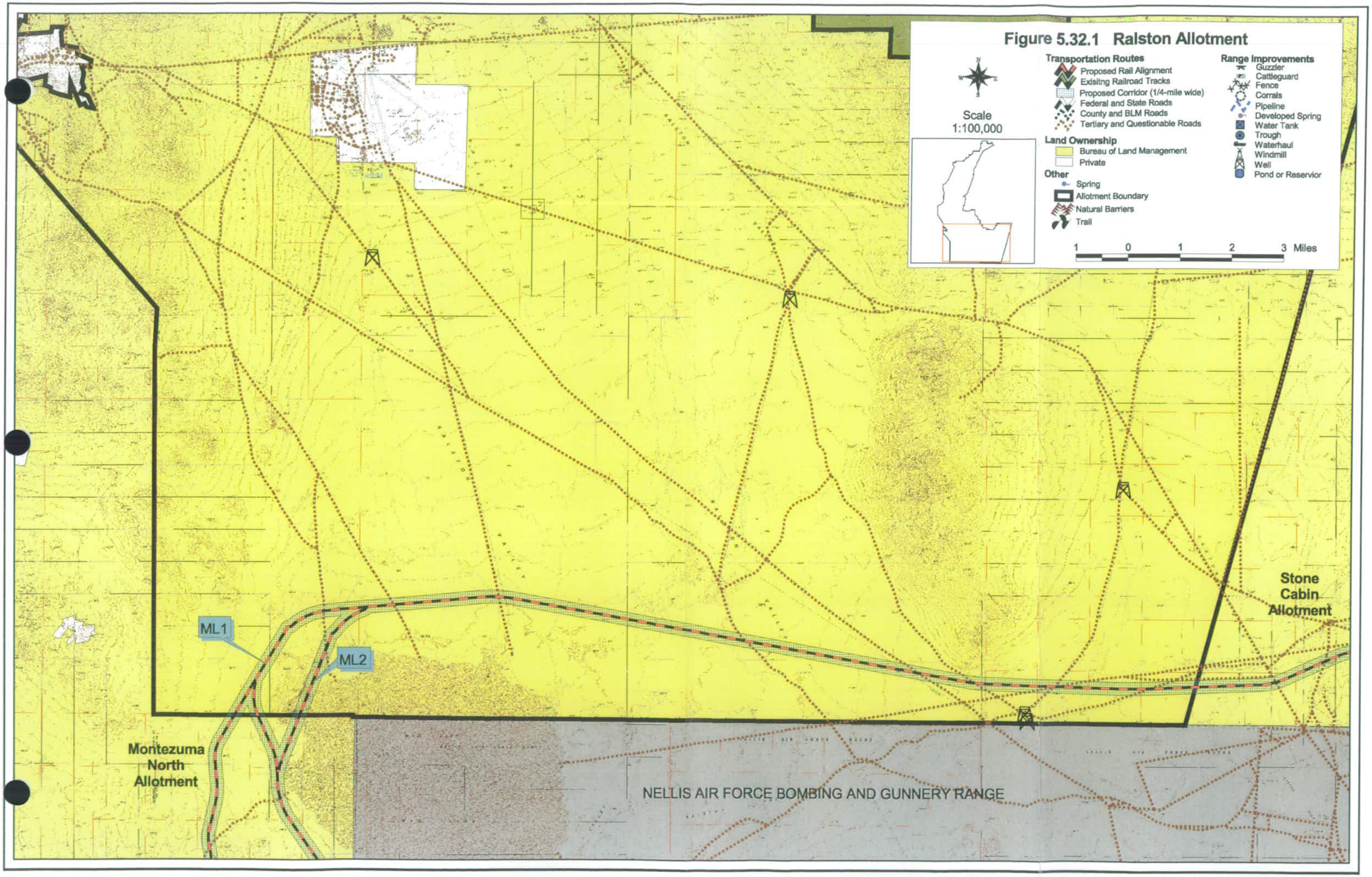


Figure 5.32.1 Ralston Allotment
Scale
1:100,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
1 0 1 2 3 Miles
ML1
ML2
Montezuma North Allotment
Stone Cabin Allotment
NELLIS AIR FORCE BOMBING AND GUNNERY RANGE

5.33 MONTEZUMA NORTH ALLOTMENT

Permittee: None

5.33.1 Existing Situation

The Montezuma North Allotment is located south of Tonopah. The western boundary is the California state line and the eastern boundary is Nevada Test and Training Range. There are two track route options proposed to travel through this allotment. See Table 5.33.1 and Figure 5.33.1 for details of the allotment and railroad route.

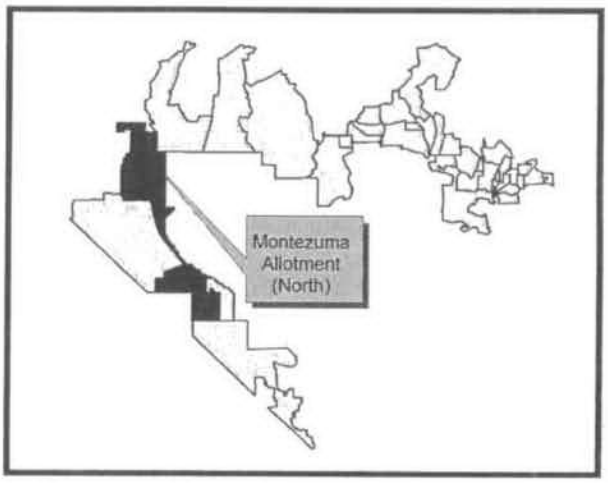


Table 5.33.1 Montezuma North Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
366,849	16,280	N/A			ML1	
					36.99	925
Total – 385,744					ML2	
					36.75	919

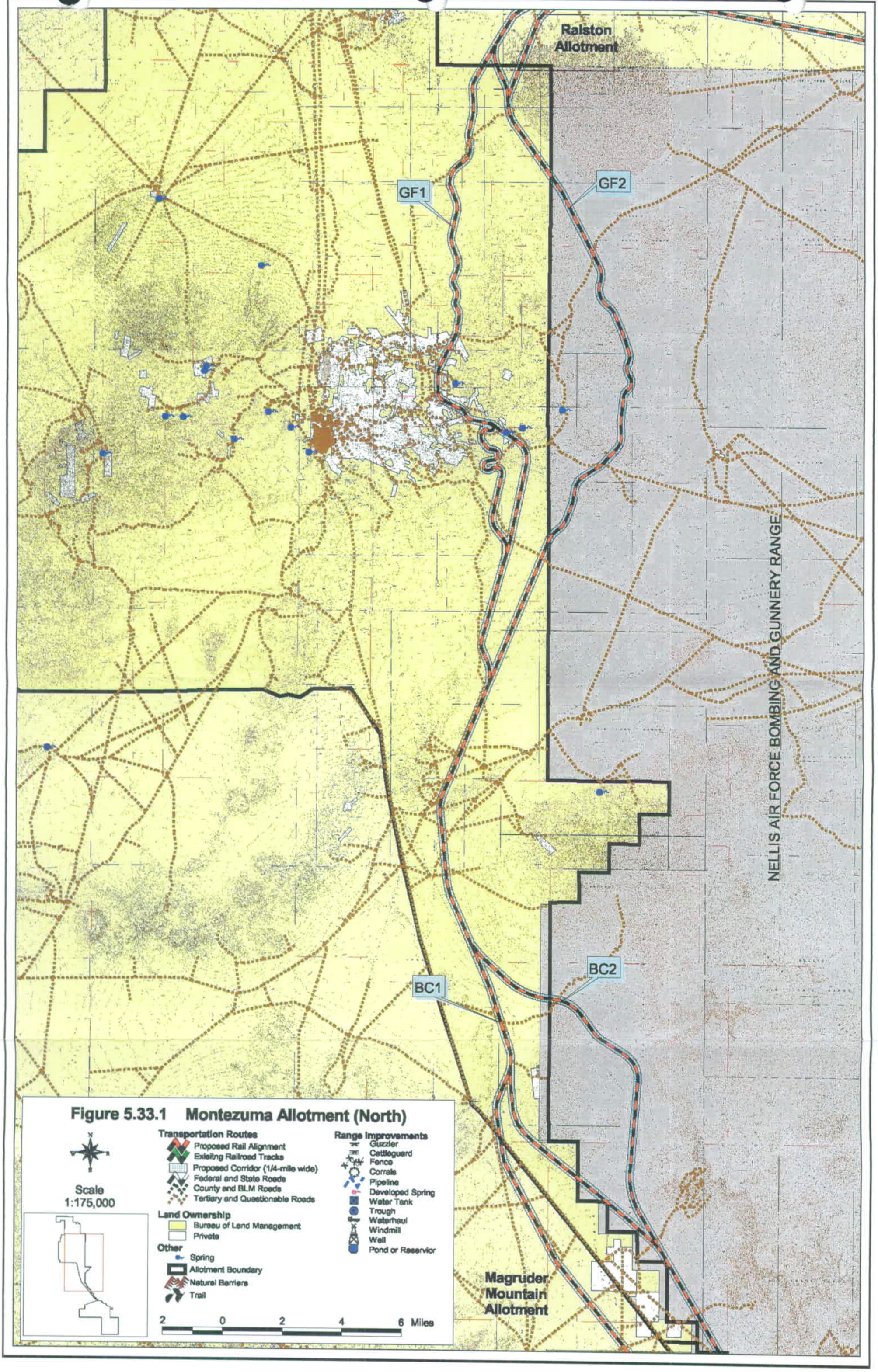


Figure 5.33.1 Montezuma Allotment (North)

5.34 MAGRUDER MOUNTAIN ALLOTMENT

Permittee: None

5.34.1 Existing Situation

The north end of the Magruder Mountain Allotment is located eight miles south of Goldfield. The California state line is the western boundary. See Table 5.34.1 and Figure 5.34.1 for details of the allotment boundary and railroad route.

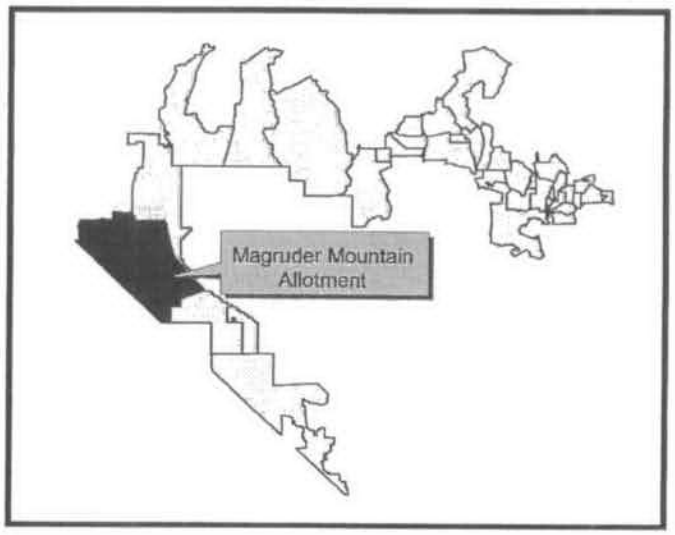


Table 5.34.1 Magruder Mountain Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
667,671	7,181	N/A			BC1	
Total – 674,852					15.69	392

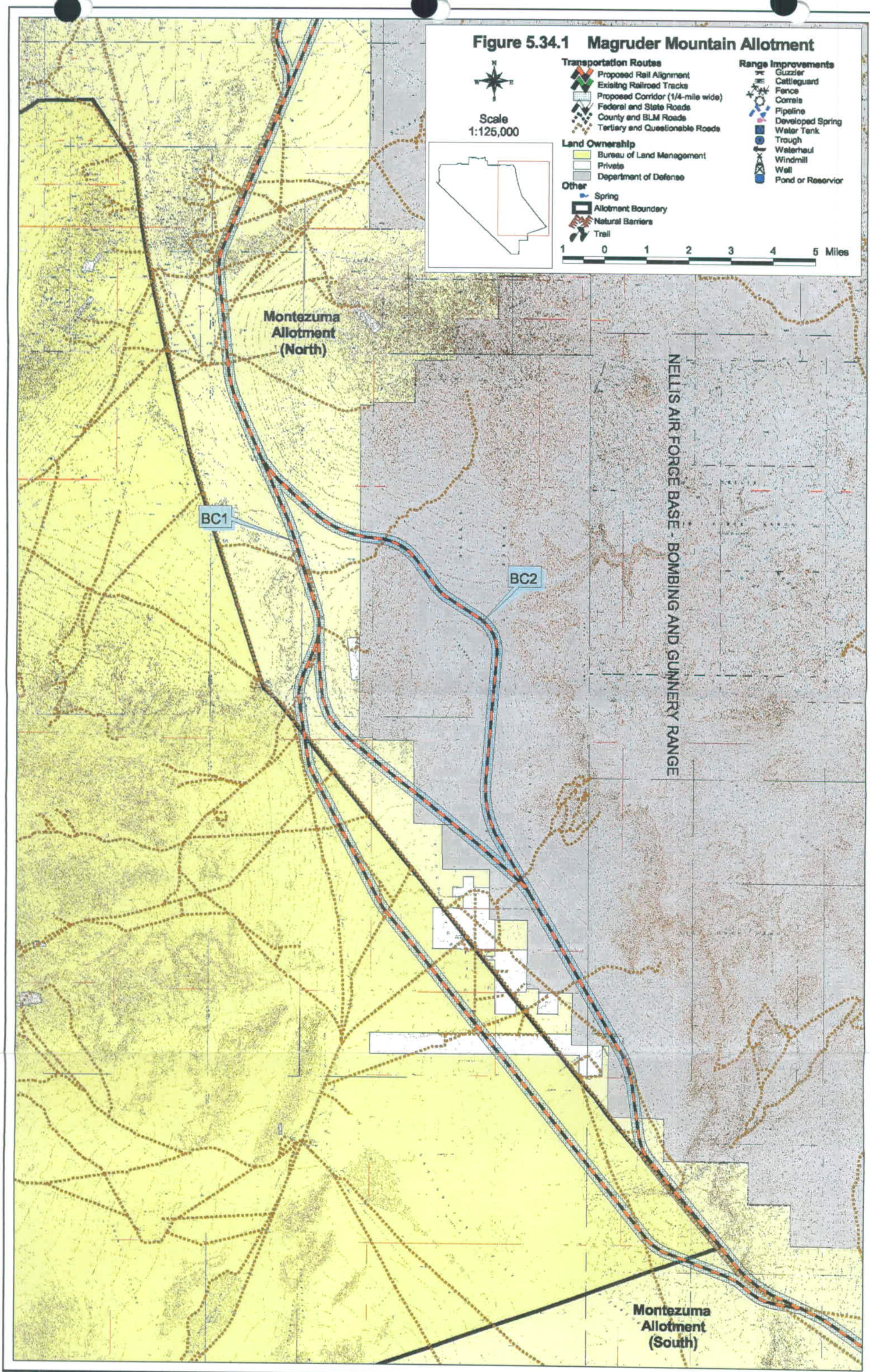


Figure 5.34.1 Magruder Mountain Allotment
N
W
E
S
Scale
1:125,000
Transportation Routes
Proposed Rail Alignment
Exisitng Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Department of Defense
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterhaul
Windmill
Well
Pond or Reservior
1 0 1 2 3 4 5 Miles
Montezuma Allotment (North)
BC1
BC2
NELLIS AIR FORCE BASE - BOMBING AND GUNNERY RANGE
Montezuma Allotment (South)

5.35 MONTEZUMA SOUTH ALLOTMENT

Permittee: None

5.35.1 Existing Situation

There are four railroad route options proposed to travel across the allotment. The acreage and miles of each railroad route option through the allotment are detailed in Table 5.35.1. See Figure 5.35.1 for details of the allotment boundary and railroad routes.

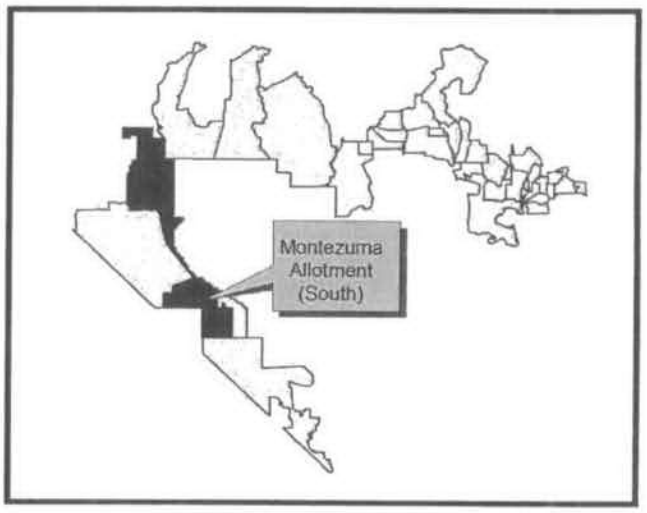


Table 5.35.1 Montezuma South Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
224,596	7,706	N/A			BC2-BW2	
					20	500
					BC1-BW1	
Total – 232,934					18.85	471
					BC2-BW1	
					19.78	495
					BC1-BW2	
					19.07	477

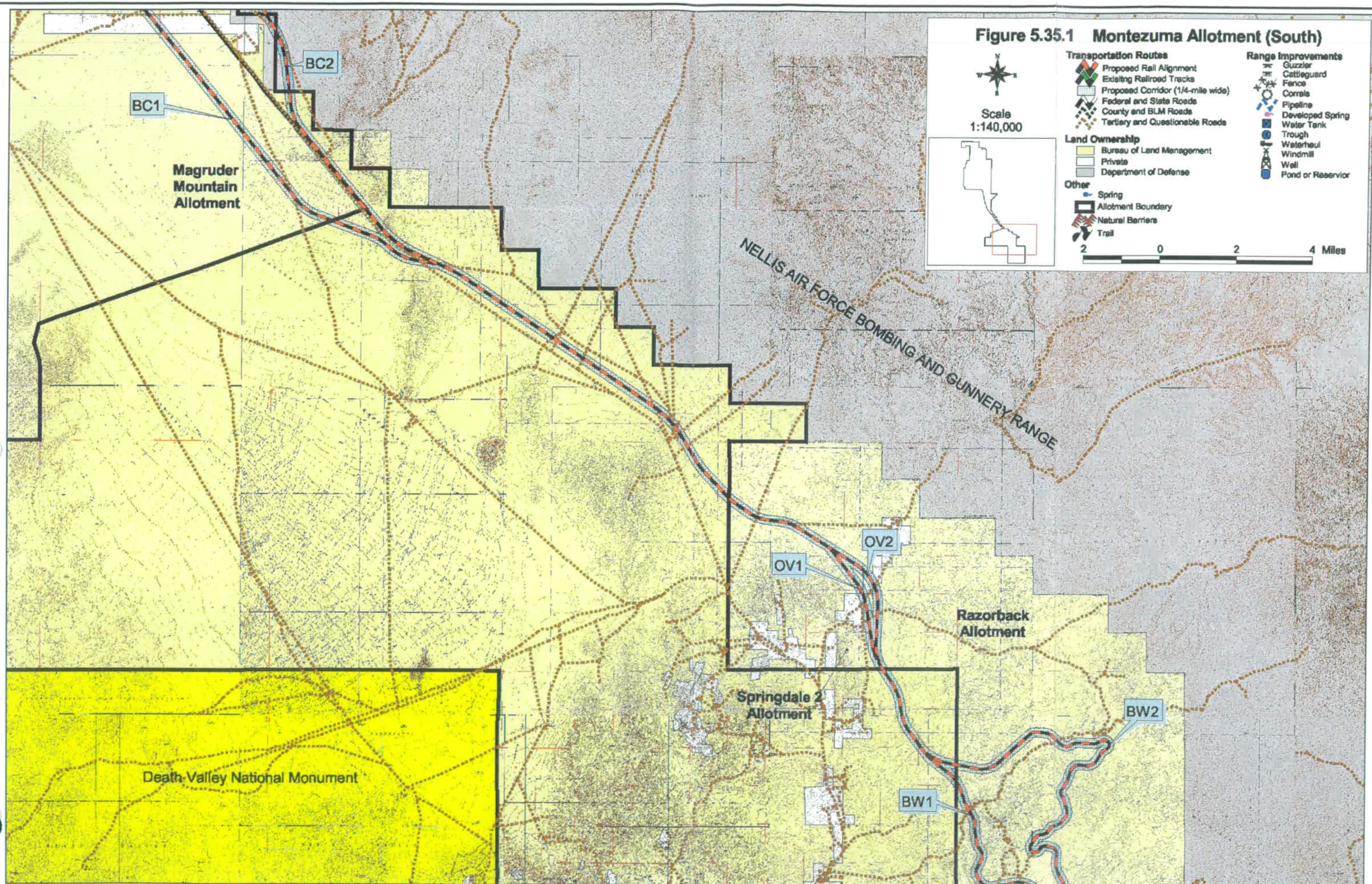
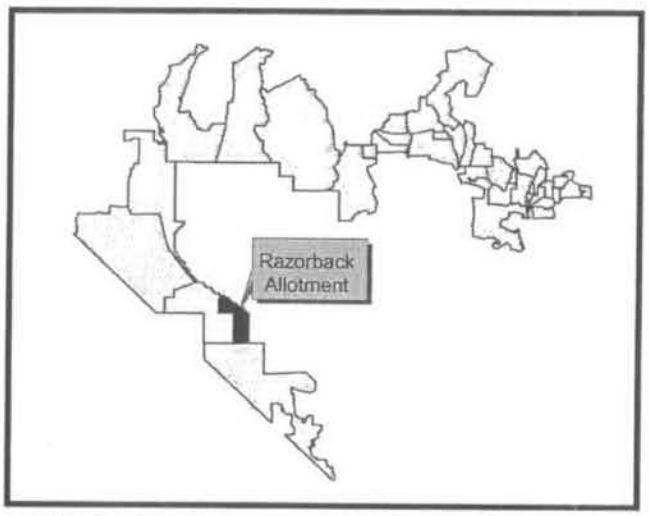


Figure 5.35.1 Montezuma Allotment (South)
Scale
1:140,000
Transportation Routes
Proposed Rail Alignment
Existing Railroad Tracks
Proposed Corridor (1/4-mile wide)
Federal and State Roads
County and BLM Roads
Tertiary and Questionable Roads
Land Ownership
Bureau of Land Management
Private
Department of Defense
Other
Spring
Allotment Boundary
Natural Barriers
Trail
Range Improvements
Guzzler
Cattleguard
Fence
Corrals
Pipeline
Developed Spring
Water Tank
Trough
Waterheul
Windmill
Well
Pond or Reservior
2 0 2 4 Miles
BC2
BC1
Magruder Mountain Allotment
NELLIS AIR FORCE BOMBING AND GUNNERY RANGE
OV2
OV1
Razorback Allotment
Springdale 2 Allotment
BW2
BW1
Death Valley National Monument

5.36 RAZORBACK ALLOTMENT

Permittee: Fleur De Lis Ranch
(Sale pending to Paul Holcher)
Contact: Paul Holcher
Address: P.O. Box 822
Fallon, NV 89407



5.36.1 Existing Situation

Base Property: Land

ALLOTMENT DESCRIPTION

The Razorback allotment borders Nellis Air Force Base on the west side near the town of Beatty. It is approximately eighteen miles long and six miles wide. There is private property within the allotment near the north end in Oasis Valley, which is fenced. There is fencing where US Highway 95 crosses through the allotment near the north end. The small portion of the allotment on the west side of the highway typically is not grazed. The only other fencing within the allotment is around the private property pastures where cattle are held as the grazing season ends. Otherwise cattle have access to all areas of the allotment. See Tables 5.36.1 and 5.36.2, and Figure 5.36.1 for details of the allotment boundary and railroad route.

Table 5.36.1 Razorback Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
72,941	1,969	106 cattle	5-01 / 1-31	968	OV1 - North Common Segment	
					6.57	164
Total – 73,655					OV2 - North Common Segment	
					6.8	170
					BW2 – South Common Segment	
					17.78	445
					BW1 – South Common Segment	
					12.00	300
					Mitigatory Route	
					9.82	246

Table 5.36.2 Razorback Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
959	385	1,344

GRAZING SYSTEM

Season-long use. Cattle may graze all areas of the allotment at any time except for the area west of the highway. Movement throughout the allotment is controlled with water availability and placement of troughs, which are moved and filled by truck as necessary to utilize all areas of the allotment. Near the end of the grazing season cattle began to return to the private pastures where they are kept when not on BLM permit.

STOCKWATER DESIGN

Water on the allotment includes natural springs and wells on the private property, a windmill at the Base boundary in Beatty Wash and a well at the south end of the allotment. In all there are six waters within four miles of the proposed corridor. Generally water is hauled by truck to BLM designated areas within the allotment.

5.36.2 Fencing Preference

Track options OV2, BW1, BW2 and a proposed Mitigatory Route would create additional problems if fenced. The OV1 option would need fencing on approximately nine miles from the spur of options OV1 and OV2 on the north side to the south side of Beatty Wash.

5.36.3 Proposed Railroad Alignment

The proposed railroad would enter the allotment in the northwest corner and then splits into two options, OV1 and OV2 on the map, which come together again before splitting into two additional options labeled BW1 and BW2. The tracks then exit as one common segment option at the southeast corner of the allotment. Since the allotment contains two different points of entry, two different points of exit, and two options for each point of entry and exit, each optional leg was analyzed for impacts. This means that if a full route through the allotment was to be analyzed for impacts and mitigation in its entirety, it would require combining the impacts and mitigation from one leg listed in 'A' and one leg listed under 'B' below.

A. First Entry/Exit Legs
   - North Common Segment – OV1
   - North Common Segment – OV2
   - Mitigatory Route

B. Second Entry/Exit Legs
   - BW2 – South Common Segment
   - BW1 – South Common Segment

5.36.4 Impacts and Mitigation Without Fencing - Track OV1/North Common Segment

Impacts and mitigation cannot be specifically determined until the centerline is staked, and until the design is available showing the depth of cuts and fills. The depth of cuts and fills will have a big bearing on the degree of obstruction of livestock and vehicle movement. The track would cross the Oasis Valley and the headwaters of the Amargosa River in an area that is very wet and marshy and prone to flooding. This track option could damage a sensitive wetland area, and possibly create more problems downstream with wildlife and disrupt the aquifer of the Amargosa River.

IMPACTS TO VEGETATION AND FORAGE

Inside the 164 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss

of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

Move the proposed alignment north and east, thus passing between the private property and Nellis Air Force Base, then turn south to tie into the Track BW1 option. This route would move the track around the private property and the Amargosa aquifer and will be referred to as the Mitigatory Route.

IMPACTS TO EXISTING FENCE

This route may cross fences at the boundary of the private property.

MITIGATION

Mitigatory Route.

IMPACTS TO LIVESTOCK MOVEMENT

Without fencing, the railway will interfere with cattle movements and grazing habits to some extent, depending on the depths of cuts and fills. The track will block the path of cattle as they return to the private pastures at the end of the grazing season.

MITIGATION

Construct three cattle crossings approximately every mile between trail crossings not to exceed 25 percent grade to allow cattle access to private pastures and areas on either side of the track.

IMPACTS TO ROADS AND TRAILS

The track and service road will cross four trails used to access the private property and the allotment.

MITIGATION

Construct crossings on the four trails not to exceed twelve percent grade.

IMPACTS TO LIVESTOCK FROM COLLISIONS

The train will pose a risk of death loss from collision. This route would pass through the private property where cattle congregate at the end of the season when returning to the home pastures. This increases the possibility of a large number of cattle being on the track

MITIGATION

Reimburse Permittee for the full value of lost animals. Fence the track to minimize the possibility of cow-train collisions from the spur of OV2 route to the BW options.

IMPACTS TO OVERALL LIVESTOCK OPERATION

This track option also would pass within ¼ mile of the homes on the private property creating noise and visual impacts that would likely devalue the property. The Permittee does not

consider the Track OV1 as a viable option, as there are no mitigation measures that could remedy the problems created by this track alignment.

MITIGATION

Mitigatory Route.

5.36.5 Impacts and Mitigation - Track OV2/North Common Segment

Impacts and Mitigations are the same as listed above for the OV1 option, with the exception that the impacts to vegetation and forage would occur on 170 acres of right-of-way.

This track option crosses private property and the Amargosa River aquifer along with the power and phone line that parallel the existing road through the private property. This track alignment option crosses the aquifer in a sandy area, and the Permittee feels it would create fewer problems with controlling the water flow and cattle movement. It is farther from the home sites and fenced area on the east side of the private property where cattle congregate, which would reduce the chance of large numbers of cattle being on the track and would not need fencing. There are fewer impacts on the allotment and the private property with the OV2 option, however it would cross private property and be within .5 mile of homes, causing severe impacts with no direct mitigation options.

MITIGATION

Construct and Use Mitigatory Route

5.36.6 Impacts and Mitigation - Track BW2/South Common Segment

IMPACTS TO VEGETATION AND FORAGE

Inside the 445 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

The exact amount of forage loss cannot be determined until construction is completed. Minimum mitigation entails keeping disturbance to the least amount possible during construction. See Section 3.7, Disturbed Area Rehabilitation.

Development of the Mitigatory Route/BW1 option and three new wells will also mitigate the impacts to livestock movement. The wells are to be located in the southern portion of the allotment, with specific locations to be determined cooperatively by the DOE, BLM, and the Permittees.

IMPACTS TO LIVESTOCK MOVEMENT

This route would block cattle movement between the north and south end of the allotment and create problems for water dispersal, which is used to control cattle movement throughout the allotment.

MITIGATION

Construct nine cattle crossings not to exceed 25 percent grade, approximately every mile between trail crossings.

IMPACTS TO ROADS AND TRAILS

This route would cross five trails used to maintain the allotment.

MITIGATION

Construct five trail crossings not to exceed twelve percent grade.

IMPACTS TO LIVESTOCK FROM COLLISIONS

The train will pose a risk of death loss from collision

MITIGATION

Reimburse Permittee for the full value of lost animals.

5.36.7 Impacts and Mitigation - Track BW1/South Common Segment

IMPACTS TO VEGETATION AND FORAGE

Inside the 300 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

Same as the BW2/South Common Segment.

IMPACTS TO LIVESTOCK MOVEMENT

Track will impede cattle movement throughout the allotment.

MITIGATION

Construct four cattle crossings at not greater than 25 percent grade, approximately every mile between trail crossings.

IMPACTS TO ROADS AND TRAILS

This route will cross seven trails within the allotment.

MITIGATION

Two trails are very near each other where the track would cross Beatty Wash and may be prone to flooding. These two trails could become one crossing at the track. The track would cross two other trails that are near each other to the south of Beatty Wash. One trail would suffice to travel through and maintain the allotment with the Permittee to determine later which trail to keep open. This would require a total of five trail crossings not to exceed twelve percent grade.

IMPACTS TO LIVESTOCK FROM COLLISION S

Same as the BW2 route.

MITIGATION

Same as the BW2 route.

5.36.8 Impacts and Mitigation Without Fencing - Mitigatory Route

Impacts to Vegetation and Forage

Inside 246 acres of right-of-way, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the right-of-way, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

MITIGATION

Same as the BW1 and BW2 routes.

IMPACTS TO LIVESTOCK MOVEMENT

Same as the BW1 route.

MITIGATION

This route would require five cattle crossings not to exceed 25 percent grade.

IMPACTS TO ROADS AND TRAILS

This route would cross three trails.

MITIGATION

Construct three trail crossings not to exceed twelve percent grade.

IMPACTS AND MITIGATION TO LIVESTOCK FROM COLLISIONS

Same as the BW1 route.

IMPACTS TO OVERALL LIVESTOCK OPERATION

Additional forage may be lost to staging areas, material borrow areas, worker camps and other construction related activities. The allotment-wide loss cannot be estimated until construction and support activity plans are available. The number of cattle crossings mentioned above is a worst-case scenario of the track being impassable to livestock. The Permittee believes that cattle will be able to cross the track in many areas without the need of constructed crossings. Exact crossing numbers cannot be determined until the depths of cuts and fills are known.

5.36.9 Impacts and Mitigation With Fencing – Mitigatory Route

All impacts mentioned above apply with some additional impacts and mitigation as follows.

IMPACTS TO LIVESTOCK MOVEMENT

Fencing will create an absolute barrier and block cattle movement to either side of the track throughout the allotment. This would disrupt the current grazing management system and would require an extensive effort to effectively revise the grazing system in place.

MITIGATION

Same as detailed in the *Without Fencing* alternative, with the addition of gates at all road or trail crossings and cattle crossings.

IMPACTS TO ROADS AND TRAILS

Same as without fencing.

MITIGATION

Install cattle guards at all road and trail crossings at both right-of-way fences.

Table 5.36.3 Razorback Allotment Impacted Features[1]

Permittee Fencing Preference: Undecided

Impacted Features	OV1 - North Common Segment	OV2 - North Common Segment	BW2 – South Common Segment	BW1 – South Common Segment	Mitigatory Route
Stockwaters w/in 4 miles			2	1	
Stockwaters w/in 1 mile					
Fences (ea)					
Roads (ea)					
Trails (ea)	4	4	5	5	3
Pipelines (ea)					

Table 5.36.4 Razorback Allotment Mitigation Project Comparison[1]

Proposed Mitigation Units	OV1 - North Common Segment		OV2 - North Common Segment		BW2 – South Common Segment		BW1 – South Common Segment		Mitigatory Route	
	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing	Without Fencing	With Fencing
Fence (mi)		13.1		13.6		35.6		24.0		19.6
Gates (ea)		14		14		28		18		16
Railroad Cattleguards (ea)										
Road Cattleguards (ea)		8		8		28		18		16
Road Crossings (ea)										
Trail Crossings (ea)	4	4	4	4	5	5	5	5	3	3
Cattle Crossings (ea)	3	3	3	3	9	9	4	4	5	5
Sheep Crossings (ea)										
Pipeline Construction (mi)										
Pipeline Crossings (ea)										
Unspecified Stockwaters										
Troughs (ea)					3	3	3	3		
Wells (ea)					3	3	3	3		
Springs (ea)										
Other										

[1] Quantities listed in these tables are for individual legs only and do not represent the collective amount of impacted features for a continuous route through the entire allotment. See Section 5.36.3 for further explanation, appropriate use, and interpretation of the quantities provided in this table.

Note: These construction units are estimates. Actual construction units cannot be determined until the centerline of the track is staked and design plans are available.

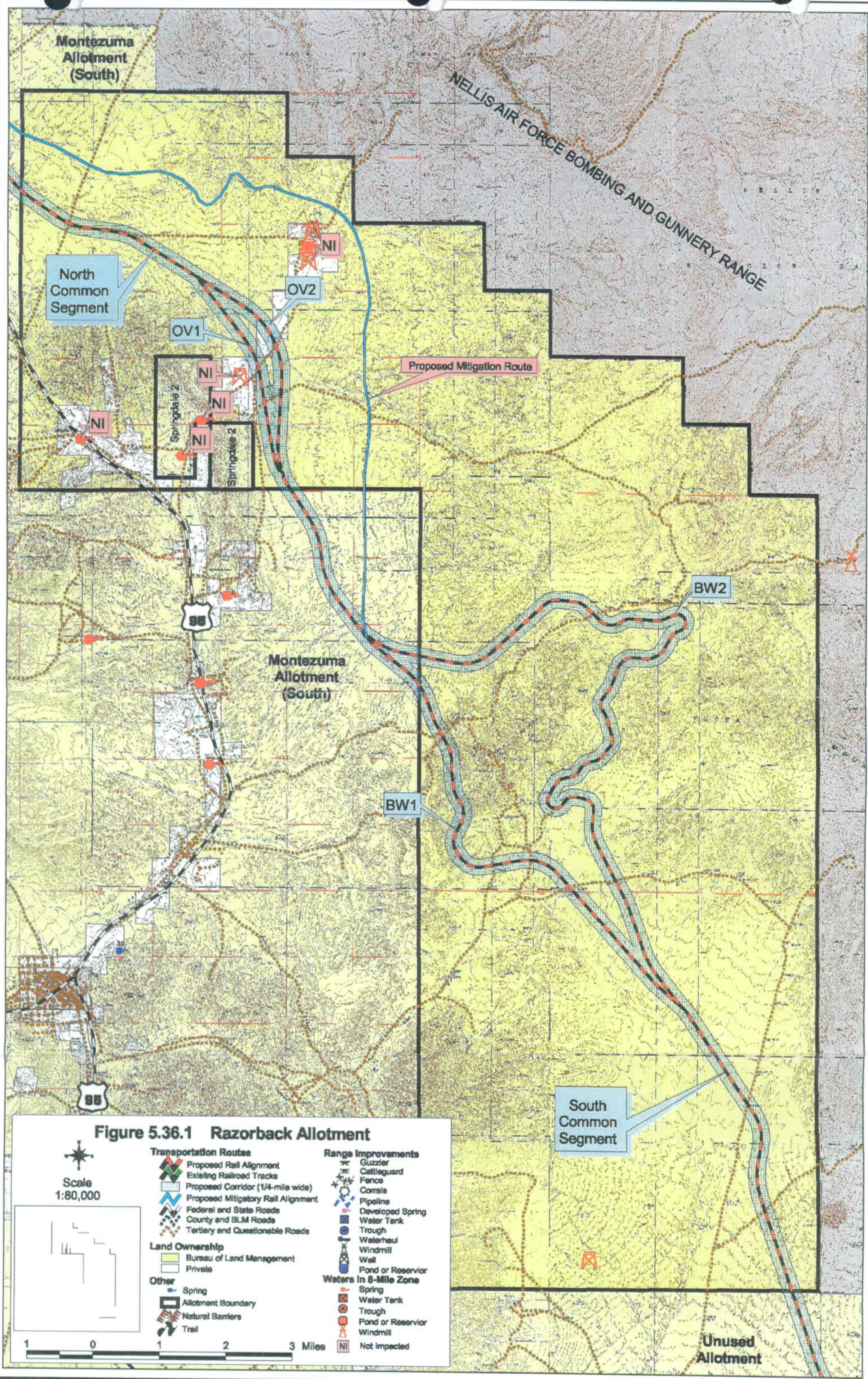
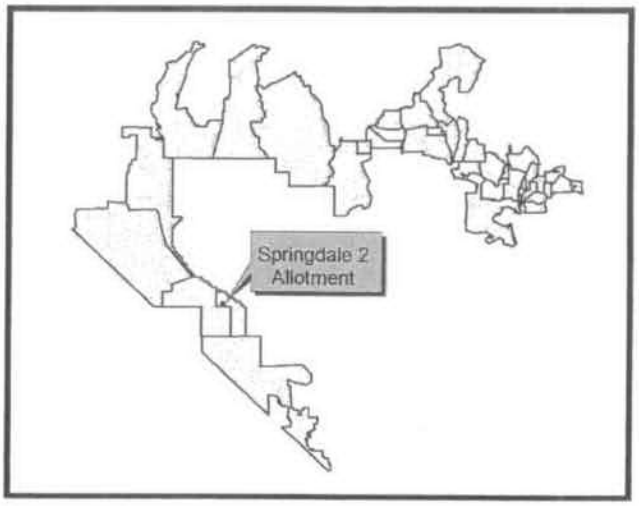


Figure 5.36.1 Razorback Allotment

5.37 SPRINGDALE 2 ALLOTMENT

Permittee: George and Larene Younghans
Contact: George Younghans
Address: Box 833
Beatty, NV 89003



5.37.1 Existing Situation

Base Property: Land

The allotment consists of two areas located on either side of private property. The portion on the west side is approximately two miles long north and south and one mile wide east and west. The area on the east side of the property is approximately one mile by one mile. The allotment is entirely within the Razorback Allotment. See Tables 5.37.1 and 5.37.2, and Figure 5.37.1 for details of the allotment and railroad route.

Table 5.37.1 Springdale 2 Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	Private	Number/Type of Livestock	Season of Use	Total AUM	Miles	ROW Acres
1,255		2 cattle	3-01 / 2-28	24	None	

Table 5.37.2 Springdale 2 Allotment Permitted Use AUMs

ACTIVE	SUSPENDED	TOTAL
24	0	24

Grazing System

Cattle utilize the entire allotment for the duration of the season.

Pasture Design

The allotment is not fenced into pastures.

Stockwaters

Cattle water at two unnamed springs on the allotment

5.37.2 Fencing Preference

The Permittee prefers that the proposed track not be fenced.

5.37.3 Proposed Railroad Alignment

The proposed railroad will be within one mile of the private property and within .5 mile of the allotment boundary on the east side.

5.37.4 Impacts and Mitigation Without Fencing

IMPACTS

The proposed railroad will be located approximately one mile to the east of home sites, creating visual and noise impacts to property owners and likely devaluing the land. There are also safety concerns, as recent flooding has destroyed railcars and track. The proposed track would cross the headwaters of the Amargosa River, which may damage the aquifer and disrupt wildlife use of the area. This is especially true due to the Amargosa Toad ESA listing issue in the Oasis Valley.

MITIGATION

Move the track approximately five miles east, around the headwaters of the Amargosa River and through the gap between the Nevada Test Site boundary and the private property. This route would stay clear of any possible damage to the Amargosa River aquifer and the proximity to private home sites, and the private property associated with the Razorback Allotment.

IMPACTS TO ROADS AND TRAILS

The proposed track would cross two roads, blocking them from public use.

MITIGATION

Keep roads open and functional for public use, during construction and after the track is in use.

5.37.5 Impacts and Mitigation With Fencing

Impacts and mitigation from the proposed track and service road to the allotment will be the same with fencing as without. Refer to section 5.37.4 for details.

Impacts and mitigation measures addressed in the analysis for the Razorback Allotment are pertinent for the Springdale 2 Allotment as well.

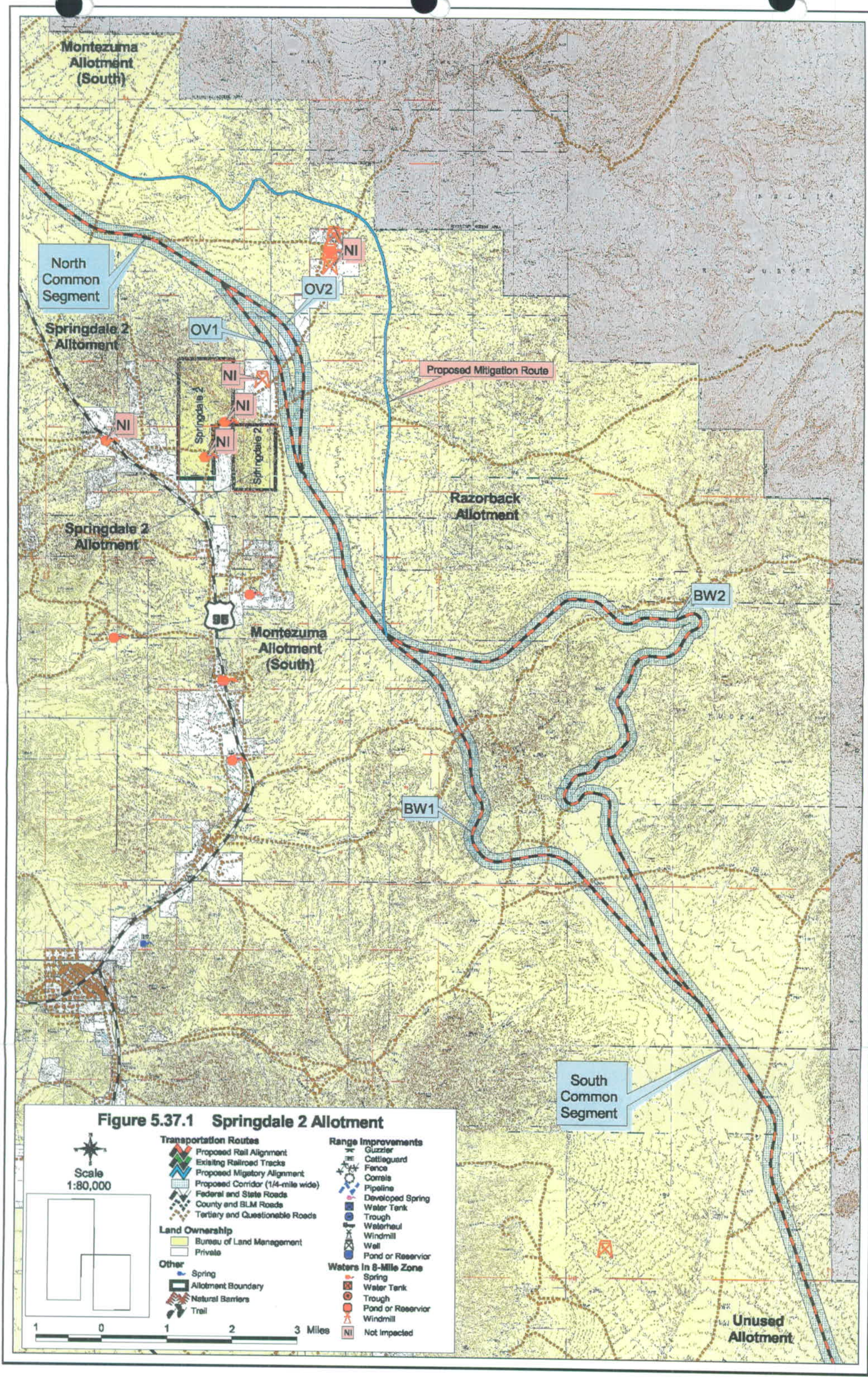


Figure 5.37.1 Springdale 2 Allotment

5.38 UNUSED ALLOTMENT

Permittee: None

The proposed railroad would travel southeast through the allotment. There are two alternative route options near the end of the railroad route in the allotment. Table 5.38.1 details the allotment acreage and miles of the railroad across the allotment. See Figure 5.38.1 for details of the allotment boundary and railroad route.

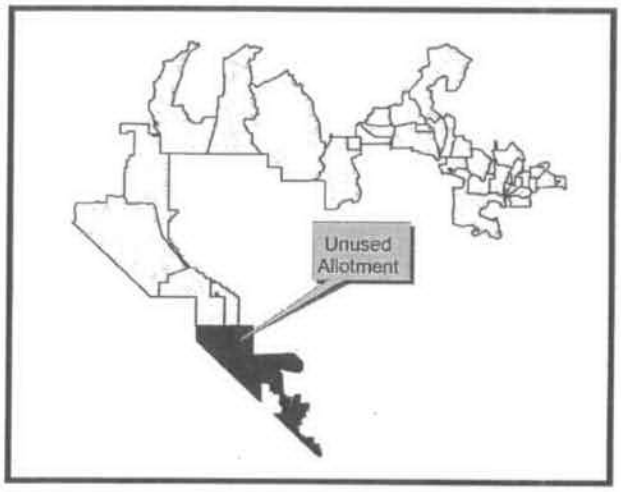


Table 5.38.1 Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT			TRACK COVERAGE	
Public	**Private**	**Number/Type of Livestock**	**Season of Use**	**Total AUM**	**Miles**	**ROW Acres**
492,314	34,208	N/A			Common Segment A	
					10.90	273
					Common Segment B	
					9.89	247

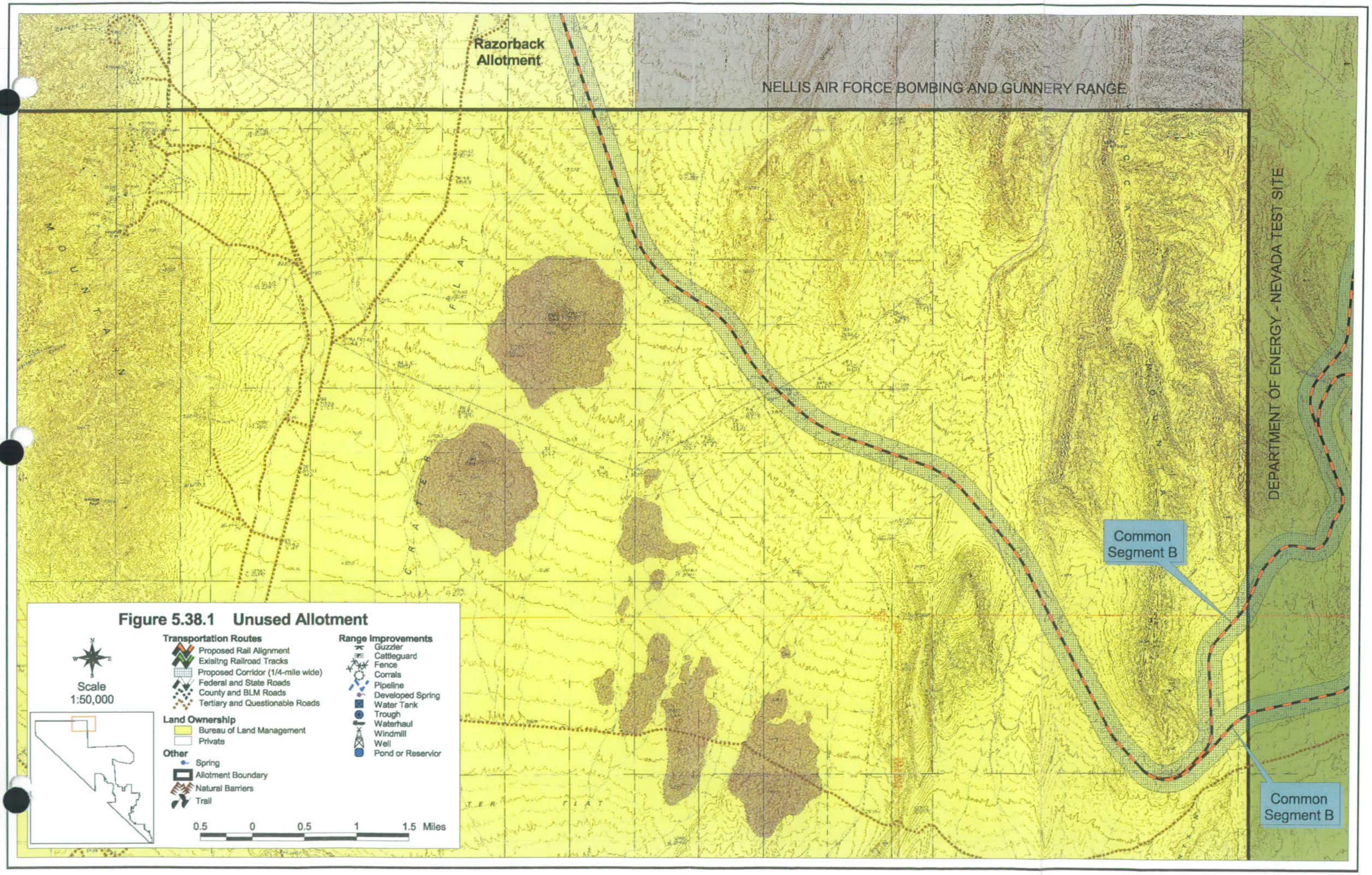


Figure 5.38.1 Unused Allotment

DEFINITIONS

DEFINITIONS

Active Use: The current authorized livestock grazing use (43 CFR 4100:0-5).

Animal Unit Month (AUM): The amount of forage necessary to sustain one cow or its Animal Unit Equivalent (AUE) for a period of one month (43 CFR). The BLM uses this unit of measure for billing purposes, and the number of AUMs sets the limits of use that a Permittee may make on BLM-administered land. AUMs have monetary value when determining the value of a ranch or other ranching property.

Cattle Crossing: A pathway for cattle to cross the railroad track, typically an earth ramp constructed at not more than 25 percent grade. The ramps may be at right angles or parallel to the track. In some cases the service road may be elevated to, or near the level of the track to serve as a ramp for the crossing.

Underpasses are also an option for cattle crossings. These are most useful where there is sufficient fill to provide livestock clearance under the railroad track.

Grazing Permit: A document authorizing use of public land within grazing districts under the Taylor Grazing Act of 1934. The Act gives the Secretary of the Interior the authority to issue grazing permits to qualified operators. The permit specifies the number of livestock that may be grazed, and any special conditions that apply to that grazing use. The amount of use is expressed in AUMs.

Grazing Preference: A superior or priority position against others for the purpose of receiving a grazing permit or lease. This priority is attached to base property owned or controlled by the permittee or lessee.

Mitigatory Route: A route recommended by the permittee and range specialist, and preferred unanimously over the DOE proposed Yucca Mountain railroad corridor because it effectively mitigates the potential impacts of the proposed railroad corridor.

Permitted Use: The forage allocated by, or under the guidance of, and applicable land use plan for livestock grazing in an allotment under a permit or lease, expressed in AUMs (43 CFR, 4100.0-5).

Pipeline: As used in this analysis, a pipe through which water is transferred from a spring, well, or water storage tank, to a stockwater trough or earthen pit for livestock use.

Pipeline Crossing: As used in this analysis, an intersection of the railroad track with a pipeline. The pipeline crossing design will provide for the pipeline to pass through a bigger than pipeline under the railroad, so that it can be removed and maintained when necessary.

Pit: As used in this analysis, a depression or hole for catching and storing water for livestock use.

Railroad Cattleguard: A cattleguard on the railroad track that prevents animals from traveling along the track.

Railroad Pad: The earthen base that the railroad tracks are built upon.

Reservoir: A man made structure where water is stored behind a dam.

Rehabilitation: To restore a disturbed natural area to its former capacity. In this analysis it applies to the reestablishment of vegetation on areas disturbed by construction activities, including reshaping for borrow pits.

Road: As used in this analysis, any route for motorized vehicles over which it is expected that trucks hauling water, livestock, or other heavy loads will travel. Federal and State highways, county, or local community roads fall under this category.

Road Cattleguard: A cattleguard constructed in the roadbed, allowing vehicles to cross the railroad but stopping livestock movement across the track. The width and strength of cattleguards varies depending on the type of traffic expected to utilize the road.

Road Crossing: As used in this analysis, where a road crosses over the railroad track. Suggested grade limit for approaches is not more than six percent grade. These structures will vary in design depending on the loads expected to pass over any given crossing.

Service Area: The distance livestock graze out from a water source, depicted as a circle around the water source on figures in this report. The service area of water sources in this report is considered to be within a four-mile radius of the water source. Any portion of the service area cut off from livestock grazing is considered to be impacted for the purposes of this report.

Service Road: A road that runs adjacent to the railroad track, used for access to and maintenance of the track.

Sheep Crossing: A livestock crossing expanded to accommodate bands of sheep. Typically these crossings are earth ramps 100 feet wide, with approaches constructed at less than 25 percent grade.

Underpasses are an option for sheep as well as cattle.

Suspension (Suspended Use): Temporarily withholding, in whole or in part, a grazing preference from active grazing use. The withholding may be done voluntarily by the permittee or lessee (43 CFR, 41:0-5). The AUMs of suspension are shown on the grazing permit as part of the grazing preference. The active use plus the suspended use equals the grazing preference for a base property.

Trail: As used in this analysis, an route traveled by pickups or other light-duty motorized vehicles are expected to travel.

Trail Crossing: As used in this analysis, where a trail crosses the railroad track. Suggested grade limit for approaches is not more than twelve percent grade.

Trestle: A braced framework of timbers, piles, or steelwork for carrying a road or railroad over a landform depression.

Trough: As used in this analysis, a structure from which livestock drink; also referred to as a water tank.

Underpass: A structure that allows passage under the railroad track. The size and dimensions will vary to accommodate cattle, bands of sheep, water hauling trucks, stock trucks and trailers, and other vehicles depending on need.

Water Storage Tank: A tank that collects water from springs, wells, or water catchment aprons, for distribution through a pipeline, or from which water is hauled elsewhere for livestock use on a grazing allotment. The tanks are generally constructed of steel, although they may be concrete or other material. A typical water storage tank holds 5,000 gallons of water, however there are smaller and larger tanks available.

REFERENCES

REFERENCES

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APPENDICES

APPENDIX A

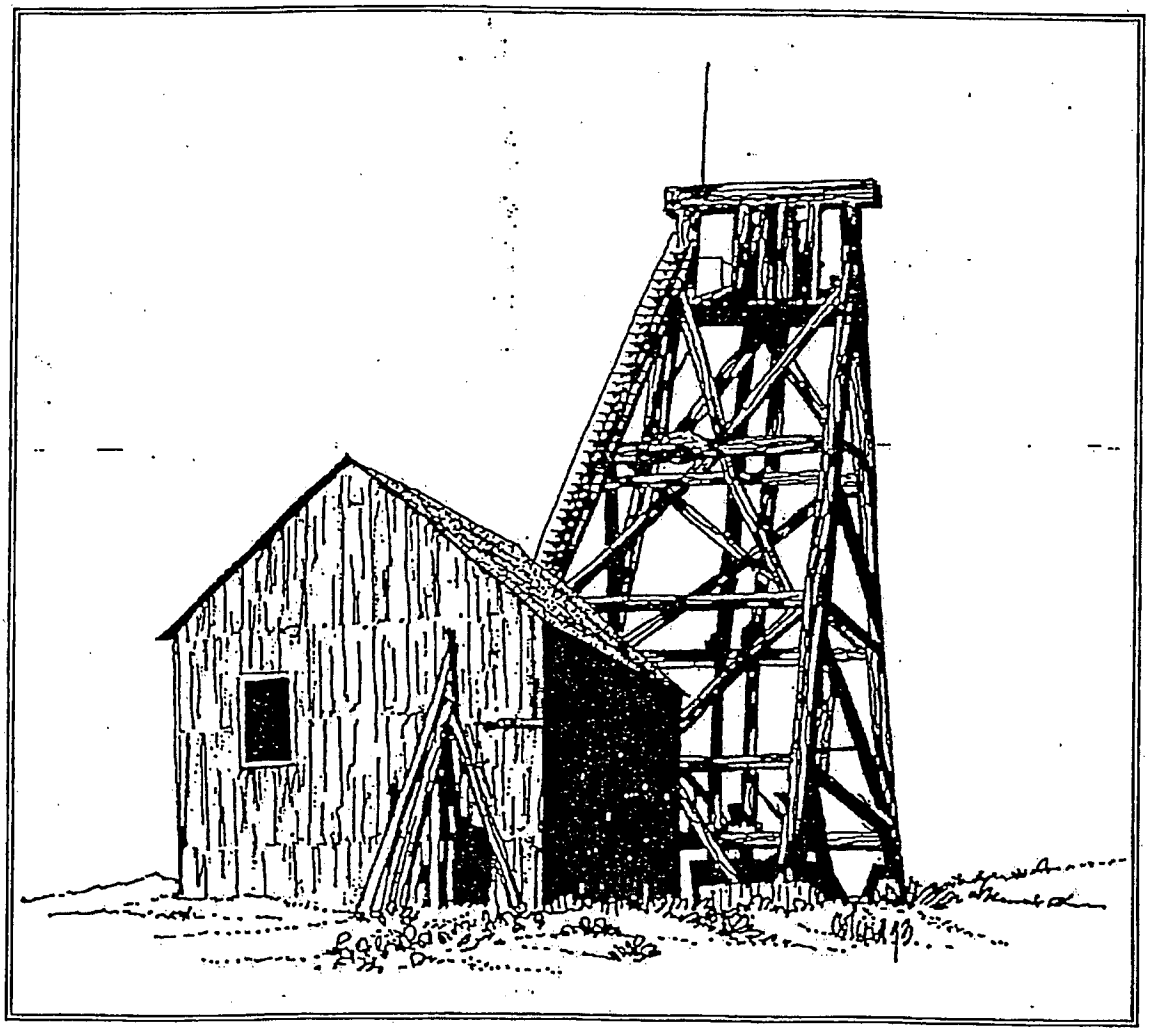
Tonopah Resource Management Plan and Record of Decision

United States Department of the Interior
Bureau of Land Management

Battle Mountain District
Tonopah Field Station, Tonopah, Nevada

October 1997

APPROVED
Tonopah Resource Management Plan and Record of Decision



TONOPAH RESOURCE MANAGEMENT PLAN
and
RECORD OF DECISION

Prepared by:
Department of the Interior
Bureau of Land Management
Battle Mountain District

Ann J. Morgan
State Director, Nevada

October 6, 1997

The Tonopah Resource Management Plan and Record of Decision outlines decisions for the management of 6.1 million acres of public lands within the Tonopah Planning Area, in Nye and Esmeralda Counties, south-central Nevada. These lands are administered by the Tonopah Field Station of the Bureau of Land Management's Battle Mountain District.

For further information contact: Tonopah Field Station Manager, Bureau of Land Management, Building 102, Military Circle, P.O. Box 911, Tonopah, Nevada 89049, or telephone (702) 482-7800.

TONOPAH RESOURCE MANAGEMENT PLAN
and
RECORD OF DECISION

INTRODUCTION

The Tonopah Resource Management Plan (RMP) provides a comprehensive framework for managing approximately 6.1 million acres of public lands administered by the Tonopah Field Station of the Bureau of Land Management's (BLM) Battle Mountain District. This RMP replaces the Tonopah Management Framework Plan (1981) and the Esmeralda-Southern Nye, Area A, Resource Management Plan (1986); pertinent decisions from those two documents are brought forward into this RMP. This new plan will guide the management of the public land resources for the next 15-20 years for portions of Nye and Esmeralda Counties of south-central Nevada (see Maps 1 and 2). Significant resources and program emphases in the plan include: wildlife habitat, special status species, riparian areas, forestry and vegetative products, livestock grazing, wild horses and burros, lands and rights-of way, cultural resources, recreation, utility corridors, and locatable and leasable minerals.

The development of this land-use plan began early in 1990 when the public was invited to become involved through participating in several scoping meetings. Over the next two years, a Draft Plan and Environmental Impact Statement was developed. It was published and sent to the public for review in mid-1993. Following BLM review of almost 100 comment letters on the Draft Plan, the Proposed Plan and Final Environmental Impact Statement was developed and sent to the public for review in late 1994. Twenty letters of protest to the Proposed Plan were subsequently filed with the BLM Director. The resolution of these protests involved several meetings with both Nye and Esmeralda County Commissioners over a period of several months in 1996. The final resolution of these protests was completed early in 1997. Copies of the protest letters, and of BLM response letters addressing specific points of protest, are available for public review at the BLM Tonopah Field Station. As a result of these protests, it was necessary to withhold the decisions to designate several Areas of Critical Environmental Concern (ACECs) from this Record of Decision (ROD) (see 43 Code of Federal Regulations 1610.5-1(b)). This topic will be readdressed because several points of protest concerning ACECs were found to be valid. Therefore, an ACEC Plan Amendment to the RMP will be prepared over the next two years. The development of this amendment will include extensive involvement by the public.

This Resource Management Plan has been updated to reflect changes since the Proposed RMP was released in October 1994. Corrections and additions have been made where necessary in the following text. Also included is a glossary that provides definitions of the technical terms and acronyms used.

ALTERNATIVES INCLUDING THE PROPOSED ACTION

Five management scenarios--the Proposed Action and four alternatives--were analyzed in the Proposed Tonopah RMP/Final EIS, released for public review in October 1994. All five managment scenarios are legally feasible and technically possible. The Proposed Action and its alternatives were developed in response to planning issues identified through public scoping at the beginning of the planning process and are designed to conform to BLM's program guidance and current policy.

ALTERNATIVE 1:

This is the No-Action Alternative. Under this alternative, land-use management would continue as at present and would be guided by the Tonopah Management Framework Plan (in effect since 1981) and the Esmeralda-Southern Nye Resource Management Plan (in effect since 1986). Management direction for resources and uses not addressed in those plans would be derived by extrapolating from past management actions.

ALTERNATIVE 2:

This alternative would provide maximum opportunity for private economic development and economic diversity, and maximum utilization of a wide range of resources. Lands would be made available for expansion and development, while still protecting sensitive resource values.

ALTERNATIVE 3:

This alternative would provide for private economic development and economic diversity, but with a greater emphasis on environmental safeguards designed for the preservation and enhancement of environmental systems, and for species diversity. Alternative 3 is the "environmentally preferred" alternative.

ALTERNATIVE 4:

This alternative is designed to strike a balance between the need for environmental safeguards and the need to provide opportunity for resource utilization, private economic development, and economic diversity. It would provide wide opportunity for the development of renewable and nonrenewable resources while still ensuring the preservation and enhancement of fragile and unique resources.

PROPOSED ACTION:

The proposed action as outlined in the 1994 Proposed Tonopah RMP and detailed below is similar in all major respects to Alternative 4. It provides slightly greater protection for riparian habitat, joshua tree forests, and cultural resources, but also provides greater opportunity for livestock grazing, land disposal, and recreation use.

MANAGEMENT CONSIDERATIONS

Design of the Proposed Plan was guided by the need to provide for a wide range of land uses on the one hand, and the need for environmental safeguards to protect fragile and unique resources and ensure sustained yield on the other. The "environmentally preferred" alternative (Alternative No. 3 above) thus was *not* selected because it would have unduly limited opportunity for private economic development, economic diversity, and resource usage in the Tonopah Planning Area. Provision is made in the Proposed Plan for the disposal of nearly 300,000 acres of public land, for a wide variety of recreation opportunities, for the continued utilization of public grazing lands, and for the harvest of forestry and vegetation products. Environmental safeguards are designed to provide effective protection of cultural resources, riparian areas, special status species, and fish and wildlife habitat, while at the same time allowing broad opportunity for diverse land uses and resource development.

DECISIONS

The following decisions, listed as RMP Determinations, are presented by resource categories as outlined in the BLM 1620-1625 Manuals, referred to as Supplemental Program Guidance. These decisions read somewhat differently from those listed in the 1994 Proposed Plan and Final Environmental Impact Statement. However, their overall scope and intent have not been changed. The rewording was brought about as a result of editing the Proposed Plan to make it more readable, as requested by both county commissions. In addition, numerous duplications in the RMP Determinations were deleted and are now cross-referenced instead. Also deleted was all reference to the designation of ACECs, seven of which were addressed in the Proposed Plan. Pending the above-mentioned amendment, these seven areas will be managed to protect their special resource values wherever the BLM has discretionary authority to do so.

Readers and users of this document should be aware that the land management decisions discussed herein conform to the principles of multiple use and sustained yield. In practice this means that the management of some resource values affects the conditions under which other resources can be utilized or developed. For example, mitigation to reduce the visual impacts from mineral production is held to higher standards in a Class II Visual Resource Management (VRM) area than in a Class IV area, and the costs of such mitigation conceivably could affect the economic viability of a mining venture. Similarly, exploration and production activities might be restricted in areas of Special Status Species or in areas of Cultural Resources if impacts to these resources cannot successfully be mitigated.

The following are the "Objective" and "Determinations" for each major resource in the planning area.

WATERSHED

Objective:

To maintain or improve watershed conditions in the Tonopah Planning Area.

RMP Determinations:

1. Prepare and implement activity plans (Allotment Management Plans for livestock grazing, Habitat Management Plans for wildlife, and Herd Management Area Plans for wild horses and burros, or the functional equivalents of these documents) in watersheds where there is a high potential to reduce erosion. Rehabilitation techniques and improvements such as check dams and seedings will be utilized. These watersheds are: Oasis Valley, Wagon Johnnie, Hot Creek, Sand Springs, Stone Cabin, Morey, Ione, Monitor, Ralston, Lower Railroad Valley, Reveille, San Antone, Hunts Canyon, Big Smoky, and Lower Hot Creek (see Maps 3 and 4).

   Additional watershed determinations are in the following sections: Wildlife Habitat Management, Determination 2. Riparian Habitat, Determinations 1., 2., & 3. Fire Management, Determination 3.

VEGETATION

Objective:

To provide for vegetative and ecological diversity.

RMP Determinations:

1. Manage the vegetation resource for desired plant communities. A general listing of key plant species associated with desired plant communities is shown in Appendix 1 (these key plant species are identified by basic vegetation type and ecological site of occurrence). Descriptions of specific desired plant communities will be developed by allotment at key areas. This will be done in conjunction with grazing permitees and other publics. Descriptions will be based on information collected at the key area sites, including data on ecological potential. Management of the vegetative resource will provide for the physiological needs (such as critical growth periods, biomass production, root reserve increase, and seed production) of the key forage plant species. Key forage plant species are shown by allotment in Appendix 2.

   Additional vegetation determinations are in the following sections: Wildlife Habitat Management, Determinations 1. a., 2., 3., and 6. Special Status Species, Determinations 2. and 3. Riparian Habitat, all Determinations. Forestry and Vegetation Products, all Determinations. Livestock

Grazing Management, Determinations 1. b., 1. c., and 2. Wild Horses and Burros, Determination 1. b. Lands and Rights-of-Way, Determinations 1. d., 6. b., and 6. c. Recreation, Determination 4. Recreation (Specific to Special Recreation Management Areas), Determination 2. Utility Corridors, Determination 1. Fire Management, Determinations 3. and 4.

VISUAL RESOURCE MANAGEMENT

Objective:

To designate visual resource management classes and maintain existing scenic qualities.

RMP Determinations:

1. Manage the Tonopah Planning Area for the following Visual Resource Management (VRM) classes (see Maps 7 and 8):

Class I Areas: **0 acres**

This class provides primarily for natural ecological changes; however, it does not preclude limited management activity. Any contrast created within the characteristic environment must not attract attention. It is applied to wilderness areas, some natural areas, wild portions of the wild and scenic rivers, and other similar situations where management activities are to be restricted.

Class II Areas:* **469,170 acres**

Changes in any of the basic elements (form, line, color, texture) caused by a management activity should not be evident in the characteristic landscape. A contrast may be seen but should not attract attention. Class II VRM areas total 7.7% of the Tonopah Planning Area.

Class III Areas:* **218,000 acres**

Contrasts to the basic elements (form, line, color, texture) caused by a management activity may be evident and begin to attract attention in the characteristic landscape. However, the changes should remain subordinate to the existing characteristic landscape. Class III VRM areas total 3.6% of the Tonopah Planning Area.

Class IV Areas:* **5,403,931 acres**

Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic elements (form, line, color, texture) inherent in the characteristic landscape. Class IV VRM areas total 88.7% of the Tonopah Planning Area.

* Structures in the foreground distance zone (0-½ mile) often create a contrast that exceeds the VRM class, even when designed to harmonize and blend with the characteristic landscape. This may be especially true when a distinctive architectural motif or style is designed. Approval by the Area Manager is required on a case-by-case basis to determine whether the structure(s) meet the acceptable VRM class standards and, if not, whether they add acceptable visual variety to the landscape.

(note: Acreage figures given above assume that Wilderness Study Areas will be released by Congress and returned to multiple-use status)

2. Manage scenic quality along five identified highways as Visual Resource Management Class III areas (State Route 374 between Beatty and Death Valley National Monument, State Route 267 between Scotty's Junction and Death Valley National Monument, State Route 266 between Lida Junction and the California border, State Route 265 between Blair Junction and Silver Peak, and State Route 264 between U.S. 6 and the California border).

3. Manage the Lunar Crater Area (39,680 acres) and all primitive and semiprimitive nonmotorized areas (except for existing roads) as Visual Resource Management Class II areas (see Maps 26, 28, and 29) (also see Appendix 10 for definitions for primitive, semiprimitive nonmotorized, and semiprimitive motorized).

   Additional VRM determinations are in the following sections: Recreation (Specific to Recreation Opportunity Spectrums), Determination 1. Wilderness, Determination 3.

WILDLIFE HABITAT MANAGEMENT

Objective:

To maintain and enhance wildlife habitat and provide for species diversity.

RMP Determinations:

1. Continue the following management decisions from previous land use plans:

   a. The Toiyabe Bench will continue to be managed in cooperation with the Nevada Division of Wildlife and the U.S. Forest Service in accordance with the *Toiyabe Bench Deer Winter Range Management Plan.* Livestock grazing would be excluded on 9,127 acres of crucial deer winter range until the objectives in the *Toiyabe Bench Deer Winter Range Management Plan* have been met. (The Toiyabe Bench has been managed in cooperation with Nevada Division of Wildlife and the U.S. Forest Service since 1985).

   b. Lockes Meadow, Blue Eagle Pond, Big Well, Chimney Springs, Reynolds Spring and North Spring riparian areas (total 2,317 acres) will be excluded from grazing to achieve riparian objectives in accordance with the *Railroad Valley Wildlife Management Plan.* Livestock grazing may be authorized on a temporary, nonrenewable basis to achieve objectives identified in the *Railroad Valley Habitat Management Plan.*

   c. Continue to support the augmentation or reintroduction of bighorn sheep by the Nevada Division of Wildlife into potential or existing habitat areas in the Hot Creek, Goldfield, Amargosa, Magruder/Palmetto, Monte Cristo, Montezuma, Silver Peak, Sawtooth, Bare Mountain, and Gold Mountain areas (see Maps 10 and 13).

      (*note:* Nevada Division of Wildlife has conducted bighorn sheep releases on lands administered by the U.S. Forest Service in the Hot Creek Range in 1982 (18 bighorn sheep), 1983 (6 bighorn sheep), 1994 (21 bighorn sheep), and 1995 (21 bighorn sheep). The Stone Cabin, Hot Creek, and Reveille Allotment boundaries cross the Hot Creek Range.)

   d. Rocky Mountain elk will continue to be managed in cooperation with the Nevada Division of Wildlife and the Forest Service in accordance with the *Monitor Elk Management Plan.* Elk use levels will be determined through monitoring and evaluation.

2. Prepare, revise, or maintain habitat management plans, or their functional equivalent, to enhance the habitat for game and nongame wildlife species, when appropriate. The identification of specific wildlife objectives will be determined when each habitat plan is developed in consultation with affected publics, i.e., range users, interest groups, and county governments. Priorities are as follows:

   a. Maintain the *Railroad Valley Wildlife Management Area Habitat Management Plan.*

   b. In conjunction with affected publics, revise the *Silver Peak Habitat Management Plan.*

   c. In conjunction with affected publics, prepare habitat management plans for the following areas: Bullfrog Hills, Fish Lake Valley (White Mountains), Gold Mountain/Stonewall, Grant/Quinn Range, Hot Creek/Squaw Hills, Ione Valley/Royston Hills, Kawich/Reveille, Magruder/Sylvania/Palmetto, Monte Cristo/Lone Mountain, Montezuma, Pancake Range/Sand Springs, Railroad Valley (except for Wildlife Management Area), Ralston/Monitor Valleys, San Antone/Big Smoky Valley and Stone Cabin/Little Fish Lake Valley.

3. Manage mule deer habitat for best possible condition within the site potential. On 28,920 acres of mule deer winter range, restrict activities which might be disturbing to mule deer between January 15 and May 15 (see Maps 34 and 35, and Appendix 14).

4. On 26,000 acres of sage grouse habitat, restrict activities which might be disturbing to sage grouse between February 15 and May 15 (see Map 34 and Appendix 14).

5. Maintain or improve existing or potential bighorn sheep habitat areas (324,000 acres) (see Maps 10 and 13). To ensure this occurs, management actions will include 1) prohibiting construction of new roads to communication site facilities; 2) limiting vehicle use to existing roads and trails; 3) prohibiting off-highway vehicle events within one-quarter mile of Specie Spring; 4) restricting, between February 1 and May 15, activities in lambing areas which might be disturbing to bighorn sheep (17,480 acres); and 5) prohibiting land uses that are incompatible with bighorn sheep lambing areas at Stonewall Falls and Little Meadows (see Maps 10 and 13, and Appendix 14).

6. Manage pronghorn antelope habitat for best possible condition within the site potential. In conjunction with Nevada Division of Wildlife and other publics, continue to support the reintroduction and augmentation of antelope (see Maps 9 and 12). Develop additional water sources.

7. Off-site mitigation may be negotiated during a plan of operations review for locatable mineral actions when an irretrievable loss of critical or crucial habitat is unavoidable, or a significant long-term adverse impact will occur.

   (*note:* In the 1994 Proposed RMP, population goals for big game species were derived from "reasonable numbers" established by the BLM and Nevada Division of Wildlife more than ten years ago. The Nevada Division of Wildlife no longer recognizes these numbers as valid and does not currently have population goals, particularly on an allotment basis. Therefore, if monitoring data show that wildlife are overusing the vegetative resources, the Nevada Division of Wildlife will be requested to control the herd sizes at a threshold level which avoids resource damage).

   (*note:* In the 1994 Proposed RMP, elk and bighorn sheep habitat were to be managed for good or better condition. The BLM Manual 6630 (NV 6-41, 8/31/82) does not have habitat condition ratings for elk and bighorn sheep, so management of habitat for good or better condition has been eliminated).

(*note:* The Animal Damage Control determination on p. 2-5 of the Proposed RMP has been eliminated because it is not consistent with the 1995 MOU between the BLM and the Department of Agriculture, Animal Plant Health Inspection Service-Animal Damage Control).

Additional Wildlife Habitat determinations are in the following sections: Lands and Rights-of-Way, Determinations 1. b., 1. e., 3., 4., 6. a., 6. b., 6. d., 8., and 10. Recreation (for General Recreation Management), Determinations 2., 3., and 5. Recreation (Specific to Special Recreation Management Areas), Determinations 1. and 2. Utility Corridors, Determination 1. Fluid Minerals, Determinations 3. and 4. Mineral Materials, Determinations 3. and 4. Nonenergy Leasable Minerals, Determinations 2. and 3. Fire Management, Determination 3.

SPECIAL STATUS SPECIES

Objective:

To protect, restore, enhance, and expand habitat of species identified as threatened, endangered, or Nevada BLM Sensitive Species under the Endangered Species Act.

(The BLM Manual 1622.11A3f, under the heading Threatened or Endangered Species, states: "Determine affirmative conservation measures to improve habitat condition and resolve resource conflicts for listed, proposed, and candidate species. Identify habitat improvement or expansion efforts required to downlist or delist a species").

RMP Determinations:

1. Continue to protect the Railroad Valley springfish and its critical habitat at North Spring and Reynolds Spring (80 acres) through management in accordance with the *Railroad Valley Habitat Management Plan* (see Map 34 and Appendix 14). No land uses will be authorized which are incompatible with the areas' values.

2. Manage desert tortoise Non-Intensive Category III habitat (70,600 acres) to maintain current populations levels (see Map 15). Where new road construction is discretionary, no new roads will be constructed within washes. Livestock grazing will be in accordance with the August 14, 1991 *Biological Opinion for the Proposed Livestock Program Within Desert Tortoise Habitat in Southern Nevada*. Refer to the Livestock Grazing Management determination section for terms and conditions of this Biological Opinion.

3. Habitat for all Federally listed threatened or endangered species or Nevada BLM Sensitive Species (plant and animal) will be managed to maintain or increase current populations of these species. The introduction, reintroduction, or augmentation of Nevada BLM Sensitive Species, as well as Federally listed threatened or endangered species, may be allowed if, in coordination with Nevada Division of Wildlife and the U.S. Fish and Wildlife Service, it is deemed appropriate. Such actions will be considered on a case-by-case basis and will be subject to applicable procedures outlined in the section on Standard Operating Procedures, Environmental Review and Management.

   (*note:* The Nevada BLM Sensitive Species List is designated by the BLM State Director in cooperation with the State of Nevada Department of Conservation and Natural Resources. This list consists of species that are not already included as BLM Special Status Species under 1) Federally listed, proposed, or candidate species; or 2) species listed by the State of Nevada because of potential endangerment or extinction.

BLM policy is to provide sensitive species with the same level of protection as is provided for candidate species under BLM Manual 6840.06 D).

Additional Special Status Species determinations are in the following sections: Livestock Grazing Management, Determination 1. c., 1-7. Lands and Rights-of-Way, Determinations 6. b. and 10. Recreation, Determinations 1., 2., and 3. Utility Corridors, Determination 1. Fluid Minerals, Determination 4. Mineral Materials, Determination 4. Nonenergy Leasable Minerals, Determination 2. Fire Management, Determination 3.

RIPARIAN HABITAT

Objective:

To achieve or maintain the presence of adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high water flows for all riparian-wetland areas (proper functioning condition).

RMP Determinations:

1. Manage for proper functioning condition on all streamside riparian areas, and all springs, seeps, wet meadows and other riparian areas in the Tonopah Planning Area, including the 32.8 miles of streams identified in Table 1 (see Maps 14 and 15).

2. Where streams and riparian areas are functioning but are at risk of deteriorating, manage for an improving trend, as determined using techniques described in current BLM Technical References and/or other BLM guidelines. If needed, and in conjunction with the grazing permittees and other publics, design and implement management practices to achieve an upward trend. If the desired trend does not occur, the responsible class of animal (where it can be determined) will be reduced or excluded.

3. Where streams and riparian areas are nonfunctional, work with livestock permittees and other publics to modify management. If the desired trend does not occur, the responsible class of animal (where it can be determined) will be reduced or excluded.

4. Manage the following streams for trout habitat: Barley Creek, Barker Creek, Clear Creek, Corcoran Creek, Jefferson Creek, Moores Creek, Mosquito Creek, Perry Aiken Creek, Pine Creek, Silver Peak Pond Creek, and Troy Creek (9.4 miles) (see Table 1, next page).

Additional Riparian Habitat determinations are in the following sections: Vegetation, Determination 1. Wildlife, Determination 1. b. Lands and Rights-of-Way, Determinations 1. b., 3., 4., 6. b., 7., and 10. Recreation, Determinations 2. and 3. Recreation (Specific to Special Recreation Management Areas), Determination 1. Utility Corridors, Determination 1. Fluid Minerals, Determination 4. Mineral Materials, Determination 4. Nonenergy Leasable Minerals, Determination 2.

TABLE 1
SUMMARY OF STREAM HABITAT IN THE TONOPAH PLANNING AREA

STREAM NAME	MILES ON BLM	FISH SPECIES	STREAM NAME	MILES ON BLM	FISH SPECIES
Amargosa River	2.0	Oasis Valley Speckled Dace[1]	Jefferson Creek	1.0	Rainbow Trout
Barker Creek	0.5	Brook and Rainbow Trout	Little Meadow	1.0	
Barley Creek	1.0	Brook, Rainbow, and Brown Trout	Moores Creek	0.5	Rainbow, Brook, and Brown Trout
Breen Creek	2.4		Mosquito Creek	0.5	Rainbow and Brook Trout
Clear Creek	1.0	Brook and Rainbow Trout*	Ox Springs Wash	0.3	
Corcoran Creek	1.0	Rainbow and Brown Trout*	Perry Aiken Creek	1.0	Rainbow and Brown Trout*
Cottonwood	1.0		Pine Creek	0.5	Rainbow and Brown Trout*
Deep Creek	1.0		Rock Creek	6.2	
Eden Creek	5.0		Silver Peak Pond Creek	1.4	Rainbow Trout
Hooper Canyon	1.0		South Sixmile	1.0	
Hunts Canyon	2.0		Troy Canyon	1.0	Brook Trout

[1] Nevada BLM Sensitive Species. * Indicates unconfirmed occurrence of the species.

FORESTRY AND VEGETATIVE PRODUCTS

Objective:

To provide forest and other vegetation products for consumptive use on a sustained yield basis.

RMP Determinations:

1. Authorize the harvest of live trees for firewood, fence posts, and other woodland products in greenwood cutting areas. Limit authorization to 1,000 cords per year. This quantity may be adjusted through monitoring and evaluation. If Kawich and Silver Peak Wilderness Study Areas are released by Congress, greenwood cutting areas may be established within those areas. Establish new greenwood cutting areas at Bellehelen, Montezuma, Hot Creek Mountains, Squaw Hills, and Kawich, and expand cutting areas at Silver Peak, Palmetto and Palmetto Wash (total of 11,850 acres). Newly opened cutting areas may be closed when tree canopy cover is reduced to between 10 and 20 percent. Commercial harvest may be allowed in any of these areas.

2. Pinyon and juniper deadwood may be harvested in all accessible woodland acreage outside wilderness study areas. The removal of dead mahogany, cottonwood or aspen will be prohibited in order to maintain suitable wildlife habitat.

3. The harvest of Joshua trees for landscape uses will not be authorized in the Joshua tree viewing area (100,000 acres) (see Map 31, area 5). Commercial harvest of Joshua trees will be authorized only through salvage operations incidental to surface disturbance. Until a complete inventory is available to determine the sustained yield and a new level of authorization can be calculated, noncommercial authorizations will be limited to 100 trees per year.

4. Authorize cutting of Christmas trees only in areas outside wilderness study areas, and limit harvest to 1,000 trees per year. This quantity may be adjusted through monitoring and evaluation. Authorize only noncommercial harvest.

5. Authorize the collection of common desert plants and seeds. Creosote bush harvest will be authorized only northwest of State Route 267 in Nye County. No sales of live desert plants will remove more than 10 percent of the existing canopy cover. This quantity may be adjusted through monitoring and evaluation.

LIVESTOCK GRAZING MANAGEMENT

Objective:

To create healthy, productive rangelands through implementation of the recommendations of the ongoing rangeland monitoring and evaluation program.

RMP Determinations:

1. Continue the following management practices:

   a. The Tonopah MFP and Tonopah Grazing EIS, along with the Esmeralda-Southern Nye RMP/EIS, provide the guidance necessary for the livestock grazing program (see Appendices 16 to 19). The Experimental Stewardship Program and the CRMP Process, however, are not currently the methods used for allotment planning; BLM policy has changed since 1981. The Experimental Stewardship Program was an experimental program to develop Allotment Management Plans (AMPs) coordinated through the CRMP process in order to provide additional involvement in AMP development. These processes have been supplanted by the multiple-use process. All valid guidance from previous documents on grazing management (Appendices 16 to 19) will be incorporated into the multiple-use process, as modified by applicable policy changes.

   b. Manage livestock at initial stocking levels of 134,355 animal unit months for the Tonopah East area and 46,371 animal unit months for the Tonopah West area (see Appendices 5 and 6). Adjustments in use for each allotment will be based on short-term and/or long-term monitoring data methods as outlined in the *Nevada Rangeland Monitoring Handbook* and other BLM technical references. Monitoring will be in consultation with the grazing permittee and other publics. If the desired trend does not occur, the responsible class of animal (where it can be determined) will be reduced or excluded. In allotments where monitoring data do not distinguish individual use between livestock and wild horses and/or burros, the stocking level for livestock will be based on a proportion derived from previous planning documents (see Appendices 16 to 19). Allotment boundaries are shown on Maps 16 and 17.

   c. In accordance with the August 14, 1991 *Biological Opinion for the Proposed Livestock Program Within Desert Tortoise Habitat in Southern Nevada* (see Map 15), the following terms and conditions will be placed in affected Section 15 grazing leases within Non-Intensive Category III desert tortoise habitat (70,600 acres):

      1) Livestock use within desert tortoise habitat may occur from March 1 through October 14; forage utilization shall not exceed 40 percent on key perennial grasses, forbs, and shrubs.

2) Livestock use in desert tortoise habitat may occur from October 15 through February 28; forage utilization shall not exceed 50 percent on key perennial grasses and 45 percent on key shrubs and perennial forbs.

3) The key forage species within this habitat include as a minimum: Desert Needlegrass (*Stipa speciosa*), Indian Ricegrass (*Oryzopsis hymenoides*), White Burrobrush (*Hymenoclea salsola*) and Winterfat (*Eurotia lanata*).

4) Should utilization exceed 40 percent on key perennial grasses, forbs, and shrubs during the period of March 1 through October 14; or 50 percent on key perennial grasses and 45 percent on key shrubs and perennial forbs during the period of October 15 through February 28, the lessee shall have ten (10) calendar days in which to remove all livestock from desert tortoise habitat. Utilization within each allotment shall not be averaged either among locations or over time.

5) All vehicle use in desert tortoise habitat associated with the livestock grazing program shall be restricted to existing roads and trails.

6) Trash and garbage associated with livestock grazing operations, i.e., branding, roundups, etc., shall be removed from each camp site or work location and disposed of off-site in a designated facility. No trash or garbage shall be buried at work locations within desert tortoise habitat.

7) Use of hay or grains as a feeding supplement shall be prohibited in desert tortoise habitat to avoid the introduction of nonnative plant species. Mineral and salt blocks may be authorized in accordance with Title 43, Code of Federal Regulations 4100.

d. Continue with the "closed to livestock grazing" status of public lands at Columbus Salt Marsh and Emigrant Peak areas (see Map 17).

e. Develop the proposed range improvement projects, as outlined in the *Tonopah Grazing Environmental Impact Statement* and *Esmeralda-Southern Nye Resource Management Plan*, that have not been completed (see Appendix 4).

2. Manage 22 allotments as ``I" category (Improve the current resource condition), three allotments as ``M" category (Maintain the current resource condition), and nine allotments as ``C" category (Custodially manage the existing resource condition) (see Table 2, next page) (Also, see the Glossary for further definitions of these categories).

Additional livestock determinations are in the following sections: Vegetation, Determination 1. Wildlife Habitat Management, Determinations 1., 3., 4., 5., and 6. Riparian Habitat, Determinations 1., 2., and 3. Cultural Resources, Determinations 2. a. 1) and 2. c. 1).

TABLE 2
ALLOTMENT CATEGORIZATION[1]

ALLOTMENT	MGT CATEGORY	ALLOTMENT	MGT CATEGORY	ALLOTMENT	MGT CATEGORY
Blue Eagle	C	Monitor	I	Silver King	C
Butterfield	C	Monte Cristo	I	Silver Peak	M
Currant Ranch	C	Montezuma	I	Smoky	I
Crater Black Rock	I	Morey	I	Springdale #2	C
Fish Lake Valley	C	Nyala	I	Stone Cabin	I
Forest Moon	C	Ralston	I	Wagon Johnnie	I
Francisco	I	Razorback	I	White Sage	M
Hot Creek	I	Red Springs	I	White Wolf	I
Hunts Canyon	I	Reveille	I	Willow Creek	I
Ice House	M	San Antone	I	Yellow Hills	C
Ione	I	Sand Springs	I		
Magruder Mtns	I	Sheep Mtn	C		

[1] For additional information on the criteria used to rate each allotment and the results of each rating, see the supporting records in the Tonopah Field Station.

WILD HORSES AND BURROS

Objective:

To manage wild horse and/or burro populations within Herd Management Areas at levels which will preserve and maintain a thriving natural ecological balance consistent with other multiple-use objectives.

RMP Determinations:

1. Continue the following management determinations:

   a. Manage wild horses and/or burros in 16 herd management areas (HMAs) listed in Table 3 below (see Maps 18 and 19, and Appendices 8A and 8B).

   b. Manage wild horses and/or burros at appropriate management level (AML) or interim herd size (IHS) for each herd management area as outlined in Table 3 (next page). (These numbers may have been adjusted through court decisions or multiple-use decisions since the October 1994 Proposed RMP.) Appendices 8A and 8B (as modified by Table 3) show interim herd sizes and appropriate management levels by grazing allotment. Future herd size or appropriate management levels within each herd management area will be adjusted as determined through short-term and long-term monitoring data methods as outlined in the *Nevada Rangeland Monitoring Handbook* and BLM technical references (see also Appendix 7).

   c. Discontinue use of the Monitor Herd Management Area. In the 1974 census the horses identified as wild horses were actually privately owned.

   d. Assure sufficient water and forage exist for wild horses and/or burros in herd management areas.

2. When the appropriate management level (or in some cases the interim herd size) is exceeded, remove excess wild horses and/or burros to a point which may allow up to three years of population increase before again reaching the appropriate management level or interim herd size listed in Table 3.

3. Apply for appropriative water rights and/or assert public water reserves on water sources as necessary to ensure a reliable, year-round water source for wild horses and burros in herd management areas.

TABLE 3

INTERIM HERD SIZE OR APPROPRIATE MANAGEMENT LEVEL

Herd Management Area	Interim Herd Size[1]	Appropriate Management Levels[2]	Total HMA Population Size (IHS + AML)[3]
Bullfrog	12 horses, 142 burros	53 burros	12 horses, 195 burros
Dunlap	69 horses	-	69 horses
Fish Lake Valley	8 horses	57 horses & burros	65 horses & burros
Gold Mountain	-	50 horses	50 horses
Goldfield	227 horses, 71 burros	-	227 horses, 71 burros
Hot Creek	-	41 horses	41 horses
Little Fish Lake	-	39 horses	39 horses
Montezuma	140 horses	13 horses	153 horses
Palmetto	-	76 horses	76 horses
Paymaster/Lone Mountain	48 horses	-	48 horses
Reveille	-	145-165 horses[4]	145-165 horses
Sand Springs	-	49 horses	49 horses
Saulsbury	-	40 horses	40 horses
Silver Peak	230 horses	82 horses	312 horses
Stone Cabin	-	364 horses	364 horses
Stonewall	13 horses, 34 burros	-	13 horses, 34 burros
total			1,723 horses 300 burros

[1] Interim herd size is derived from previous planning documents and is the appropriate management level until modified or adjusted by monitoring and evaluation.

[2] The appropriate management level is the maximum number of wild horses and/or burros to be managed in a herd management area and has been or will be set through monitoring and evaluation or by court order.

[3] This number is a combination of Interim Herd Size (IHS--where no multiple-use decision [MUD] has been completed) and the Appropriate Management Level (AML--as determined by a MUD). Where a Herd Management Area (HMA) encompasses two or more allotments, there may be an AML for the allotment(s) in which MUDs have been completed and an IHS number for those in which MUDs have not yet been prepared.

[4] High and low management levels as directed by 1987 Court Decision (Civil R-85-535 BRT) Fallini vs. Hodel.

The Montezuma Grazing Allotment Multiple Use Decision (MUD) of February 11, 1994, is currently under appeal. If Affirmed, 5 HMAs in the above section will change to:

Bullfrog	2 burros	12 horses, 183 burros	12 horses, 185 burros
Goldfield	-	125 horses, 50 burros	125 horses, 50 burros
Montezuma Peak	2 horses	155 horses	157 horses
Paymaster/Lone Mtn.	45 horses	5 horses	50 horses
Stonewall	-	50 horses, 25 burros	50 horses, 25 burros
Adjusted total of all HMAs			1,664 horses, 260 burros

CULTURAL RESOURCES

Objective:

To protect archaeological, historical, paleontological, and sociocultural resources and manage for information potential (useful scientific, historic, or management information), public values (sociocultural, educational, or recreational values), and conservation (overriding scientific or historic importance) in conjunction with other multiple uses (see Appendix 11 for further explanation of these management guidelines).

RMP Determinations:

1. Continue the present management practices:

   a. Manage the Trap Springs-Gravel Bar Complex for information potential by maintaining the existing road closures until the information potential of this complex can be recovered through a comprehensive research and data recovery program.

   b. The Berlin Town Site (704 acres) will be managed for public values and conservation and its recreation values will be managed in conjunction with the State Park.

   c. Paleontological resources will be managed to protect specimens and maintain or enhance the following areas for their scientific and educational values: 1) fossiliferous sedimentary rocks and Quaternary alluvium, 2) Ione Valley, 3) Tonopah Flat, and 4) Gabbs Valley.

2. Classify and manage the following cultural resources for their information potential, public values, and conservation.

   a. Manage for Information Potential.

      Rockshelters; Late Pleistocene/Western Pluvial Lakes Tradition Sites; sites on valley bottoms lacking Pleistocene lake features; historic sites lacking clear association with either established mining districts, locally important ranching operations or major transportation routes; and sites on upper and lower bajada slopes.

      Specific management determinations are as follows:

      1) Manage the Stormy-Abel Site Complex (12,320 acres) by prohibiting new range improvements or other actions that would increase grazing in the vicinity of Storm, Coyote, and Abel Springs.

      2) Manage the Trap Springs-Gravel Bar Complex (8,480 acres) to maximize data recovery and salvage of cultural resources, while allowing for oil and gas production. This will be done by developing and implementing a comprehensive data recovery program and prohibiting gravel sales on The Gravel Bar (679 acres).

   b. Manage for Public Values:

      Rockshelters; Late Pleistocene/Western Pluvial Lakes Tradition Sites; sites on valley bottoms lacking Pleistocene lake features; historic sites lacking clear association with either established mining districts, locally important ranching operations or major transportation routes; and sites on upper and lower bajada slopes.

Specific management determinations are as follows:

1) Fluid mineral leasing will be allowed with a no-surface occupancy stipulation at Jumbled Rock Petroglyphs (10 acres), Moores Station Petroglyphs (40 acres), and Mountain View Arrastra (40 acres) (see Map 33; also see Appendix 14 for legal descriptions).

2) Withdraw from mineral entry Moores Station Petroglyphs (40 acres), Mountain View Arrastra (40 acres), and Tybo-McIntyre Charcoal Kilns (80 acres) (see Map 24; also see Appendix 14 for legal descriptions).

3) No land uses will be authorized which are incompatible with cultural values and limit vehicle use to existing roads and trails at Moores Station Petroglyphs (40 acres) and Mountain View Arrastra (40 acres).

4) Manage the Rhyolite area (425 acres) to protect historic structures for public uses. Land disposal will not be allowed. No land uses will be authorized which are incompatible with the area's values. Limit vehicle use to existing roads and trails. Provide for signing and barricades to exclude people from unsafe structures. Establish a Special Recreation Managment Area. Allow mineral leasing with a no-surface-occupancy stipulation. Withdraw 126 acres from mineral entry (see Appendix 14 for legal descriptions).

5) Protect historic structures of the Tybo-McIntyre Charcoal Kilns (80 acres; 20 acres around each set of kilns). Manage historical values for conservation and public values. No land uses will be authorized which are incompatible with the area's special values. Improve access roads and trails. Develop visitor use facilities and establish a Special Recreation Management Area. Allow mineral leasing with a no-surface-occupancy stipulation. Wtihdraw the area from mineral entry. (See Appendix 14 for legal descriptions).

c. Manage for Conservation:

Rock shelters with datable deposits (sites that contain material that can be assigned to a specific time period); stratified sites (sites that contain layers of materials that can be dated from different time periods); late Pleistocene/western pluvial lakes tradition sites; historic sites associated with established mining districts, locally important ranching operations or major transportation routes; and sites containing paleoenvironmental data.

Specific management determinations are as follows:

1) Cane Man Hill Area (680 acres) will be managed to protect its prehistoric values (see Map 27). No land uses will be authorized that are incompatible with the area's values. Manage cultural resources for conservation (see Appendix 14).

3. Prepare a Class I overview of cultural resources for the entire Tonopah Planning Area.

4. Develop cultural resource activity plans for the following areas: Trap Springs-Gravel Bar Complex, Stormy-Abel Complex, Cane Man Hill Petroglyphs, Tybo-McIntyre Charcoal Kilns, Moores Station Petroglyphs, Jumbled Rock Petroglyphs, Tonopah Lake Complex, Mud Lake Complex, Big Springs Petroglyphs, Fish Lake Valley Petroglyphs, Mountain View Arrastra, Columbus Salt Marsh, Witched Well, Oriental Wash Petroglyphs, Cave Spring, and The Cistern.

5. Develop a rock-art management plan for the Tonopah Planning Area in consultation with Native American Leaders.

LANDS AND RIGHTS-OF-WAY

Objective:

To make lands available for community expansion and private economic development and to increase the potential for economic diversity.

RMP Determinations:

1. Continue the following management determinations:

   a. Make 43,760 acres of public land available for lease or disposal under the Desert Land Act, the Carey Act, and other applicable authorities (see Appendix 14 and Maps 20, 21, 40, and 41).

   b. If economically prudent and if the owner is agreeable, acquire the following private lands: Pritchards Station (160 acres) for historic stagecoach station values, Moores Station (160 acres) for historic stagecoach station and riparian and wildlife values, and Lockes Ranch (480 acres) (see Appendix 14 and Map 20).

   c. Continue the classification of 10,863 acres, as appropriate, for lease or disposal under the following authorities: FLPMA; Recreation and Public Purposes Act; Desert Land Act; Carey Act; Airport Leases, and other applicable authorities (see Appendices 9 and 14, and Maps 20, 21, 40, and 41).

   d. If Congress does not designate the Pinyon/Joshua Tree Transition Research Natural Area as wilderness, revoke the Natural Area designation. The Research Natural Area designation has been evaluated as inappropriate because no pinyon trees are known to occur within the designated area.

   e. Continue the existing withdrawal of 6,682 acres: Air Force (619 acres), BLM-Power Site Reserve (17 acres), portions of the Railroad Valley Area (3,040 acres), Department of Energy (2,571 acres, Federal Aviation Administration (418 acres), Forest Service Administration (12 acres), and the BLM Administrative Site (5 acres) (see Appendix 9).

2. Make an additional 255,380 acres of public land available for potential disposal (see Appendix 14, and Maps 20, 21, 40, and 41).

3. Retain for the purposes of multiple-use resource management those public lands previously identified for disposal within the Amargosa-Oasis Area, riparian areas along Perry Aiken Creek and Jefferson Creek, and deer winter range near Chiatovich Creek (total 6,280 acres) (see Appendix 14, and Maps 20 and 21).

4. If economically prudent and if the owner is agreeable, acquire the following private lands through exchange and/or purchase: Amargosa-Oasis Area (280 acres) and Rhyolite Area (120 acres) (see Appendix 14 and Maps 20 and 21).

5. If the original entrant or the entrant's assignee fails to "prove up" under the agricultural land laws, lands clasified for agricultural entry will be disposed of only under the sale and exchange authorities.

6. In rights-of-way avoidance areas, rights-of-way and other discretionary lands actions will be granted only if no feasible alternative routes are available (see Maps 22 and 23). All other lands within the Tonopah Planning Area in which there are no unresolvable conflicts with other resource values will be open to consideration for linear or areal rights-of-way, leases, and land-use permits. Any such grants, leases, or permits will include appropriate stipulations to protect the area's special values. The following rights-of-way restrictions will be established:

   a. Seasonal Restrictions on construction activities (72,400 acres) (see Wildlife Determinations 3., 4., and 5.).

   b. New or amended rights-of-way within the following areas will have to be compatible with the special values of the area: desert tortoise habitat (70,600 acres); bighorn sheep lambing grounds (17,480 acres); Moores Station Petroglyphs (40 acres); Mountain View Arrastra (40 acres); Clayton Valley Sand Dunes Special Recreation Management Area (2,500 acres); Crescent Sand Dunes Special Recreation Management Area (3,000 acres); Lunar Crater (39,680 acres); Amargosa-Oasis (490 acres); Cane Man Hill (680 acres); Lone Mountain (14,400 acres); Railroad Valley (14,720 acres); Rhyolite (425 acres); and Tybo-McIntyre Charcoal Kilns (80 acres), for a total of 148,845 acres. (Some areas overlap, affecting total.)

   c. Communication sites will not be authorized within the Lone Mountain Area (14,400 acres).

   d. On 324,000 acres of bighorn sheep habitat, construction of new roads to communications sites will be prohibited (see Maps 10 and 13, and Appendix 14).

7. Terminate all classifications under the Small Tract Act and Classification and Multiple Use Act (1,992 acres) (see Appendix 9). Termination of Small Tract Classification 148 in T. 12 S., R. 46 E., sec. 16 (Rhyolite bottle house) will be deferred until completion of the Plan amendment addressing ACECs, and will be done only when the land is closed to [withdrawn from] operation of the public land laws, including the mining laws.

8. Reduce the withdrawal to locatable minerals of the Railroad Valley Wildlife Management Area from 14,720 acres to 3,040 acres, if appropriate, pending the outcome of the ACEC amendment to this RMP (see Appendix 14).

9. If Congress does not designate the Pinyon/Joshua Tree Transition Research Natural Area (520 acres) as wilderness, terminate the withdrawal.

10. Withdraw an additional 28,996 acres from mineral entry as follows: bighorn sheep lambing grounds at Stonewall Falls and Little Meadows (1,440 acres); occupancy trespass resolution at Gold Point Townsite (60 acres); portions of Lunar Crater (25,600 acres); Amargosa-Oasis (490 acres); Cane Man Hill (680 acres); portions of the Rhyolite area (126 acres); Tybo-McIntyre Charcoal Kilns (80 acres); portions of the Railroad Valley Area (440 acres); Mountain View Arrastra (40 acres); and Moores Station Petroglyphs (40 acres) (See Appendix 14 and Maps 24 and 25).

11. Allowance of agricultural entry on any of the lands identified for disposal will segregate the entered lands from mineral entry.

RECREATION

Objective: (for General Recreation Management)

To encourage safe, public access and recreational use of public lands while ensuring protection of important resource values.

RMP Determinations:

1. In order to protect sensitive resource values such as threatened and endangered species and cultural resources, designate 1,250,290 acres as limited to vehicle use (restrictions limiting use to existing roads, trails, and washes; seasonally; or by type of user) and keep 4,840,811 acres open to unrestricted vehicle use. (see Maps 30 and 31 for Off-Highway Vehicles Restrictions; also see Appendix 3 for definitions of Off-Highway Vehicle restrictions and terms).

2. Limit vehicles to existing roads and trails in the following areas to protect sensitive resource values such as threatened and endangered species and cultural resources: Lunar Crater (39,680 acres); Amargosa-Oasis (490 acres); Cane Man Hill (680 acres); Lone Mountain (14,400 acres); Railroad Valley (14,720 acres); Rhyolite (425 acres); Tybo-McIntyre (80 acres); desert tortoise habitat (70,600 acres); bighorn sheep habitat (324,000 acres); Stormy-Abel Prehistoric District until the cultural resource information potential is recovered (12,320 acres); Trap Springs-Gravel Bar Complex until the cultural resource information potential is recovered (8,840 acres); the Sump (1,600 acres); Moores Station Petroglyphs (40 acres); Mountain View Arrastra (40 acres); primitive, semiprimitive nonmotorized and semiprimitive motorized areas (895,215 acres); and areas adjacent to trout habitat (300-foot-wide strip on each side of 9.4 miles of stream - see Riparian Habitat, Determination 5.). Note: Some of the above areas overlap, affecting the overall total.)

3. The following areas will be closed to competitive recreational events to protect sensitive resource values such as threatened and endangered species and cultural resources: Specie Spring (160 acres); Mud Spring (160 acres); Moores Station Petroglyphs (40 acres); Mountain View Arrastra (40 acres); Lunar Crater (39,680 acres); Amargosa-Oasis (490 acres); Cane Man Hill (680 acres); Lone Mountain (14,400 acres); Railroad Valley Area (14,720 acres); Rhyolite (425 acres); Tybo-McIntyre (80 acres); The Sump (1,600 acres); Clayton Valley Sand Dunes (2,500 acres); Crescent Sand Dunes (3,000 acres); and primitive, semiprimitive nonmotorized, and semiprimitive motorized areas until released by Congress from further wilderness consideration (see Wilderness Determinations).

4. Competitive events will be limited to existing roads and trails in the Joshua tree viewing area (see Map 31, area 5).

5. Competitive events are seasonally restricted on 72,400 acres of wildlife habitat (see Wildlife Determinations; also see Appendix 14, VI. No Surface Occupancy Seasonal Restrictions, and Maps 34 and 35).

   Additional recreation determinations are in the following sections: Wildlife Habitat Management, Determinations 2., 3., 4., and 5. Cultural Resources, Determination 1.

Objective: (Specific to Special Recreation Management Areas)

To manage as Special Recreation Management Areas (SRMAs) those areas where the presence of high-quality natural resources, and current or potential recreational use, warrant intensive recreation management.

RMP Determinations:

1. The following areas will be designated as SRMAs: Clayton Valley Sand Dunes (2,500 acres); Crescent Sand Dunes (3,000 acres); Lunar Crater (39,680 acres); Railroad Valley Wildlife Area (14,720 acres); Rhyolite (425 acres); Tybo-McIntyre (80 acres); and any acquired lands which have high recreational values and require intensive management of their uses (see Appendix 14).

2. Vehicle use within SRMAs will be limited to existing roads and trails. Off-highway vehicle use on unvegetated sand areas may be allowed provided that such vehicle use is compatible with the areas' values. Fluid mineral leasing will be allowed subject to a no-surface-occupancy stipulation.

Objective: (Specific to Extensive Recreation Management)

To provide dispersed recreation opportunities on all lands which are not designated as Special Recreation Management Areas.

RMP Determination:

1. Designate the Tonopah Extensive Recreation Management Area to include the 6,026,570 acres not within a Special Recreation Management Area. Develop minimal facilities necessary to meet the needs of dispersed recreational uses and to protect the environment. Approximately 60 acres will be used in construction of facilities; specific locations are not yet identified.

Objective: (Specific to Back Country Byways)

To establish Back Country Byways to facilitate visitation to less-frequented public lands, and to showcase areas of scenic, wildlife, natural, cultural, and recreational interests.

RMP Determination:

1. In conjunction with local government and other publics, designate the Emigrant Pass, Lunar Crater Volcanic Field, and Morey-Hot Creek Back Country Byways.

Objective: (Specific to Recreation Opportunity Spectrums)

To provide a full range of recreational settings, from rural to wilderness, for the pursuit of a wide variety of recreational opportunities.

RMP Determination:

1. Manage 465,725 acres for semiprimitive motorized values. Manage 90,370 acres for primitive and 339,120 acres for semiprimitive nonmotorized recreation opportunity settings. Primitive and semi-primitive nonmotorized lands will be managed for Class II Visual Resource Management (see Maps 28, 29 and Appendix 10).

WILDERNESS

Objective:

To manage all lands released from wilderness consideration by Congress as a part of the full spectrum of multiple uses within the Tonopah Planning Area.

RMP Determinations:

If released by Congress from further wilderness consideration, Wilderness Study Areas will be:

1. Managed as proposed in other resource programs (see Maps 26 and 27).
2. Managed for 90,370 acres of primitive values, 245,780 acres of semiprimitive nonmotorized values, and 268,385 acres of semiprimitive motorized values.
3. Managed as Visual Resource Management Class II areas to comply with BLM policy. No competitive events will be authorized.

UTILITY CORRIDORS

Objective:

To facilitate the placement of major transportation and utility systems passing through the Tonopah Planning Area and to minimize conflicts with other resource values.

RMP Determination:

1. Designate transportation and utility corridors on 668 lineal miles (this includes those previously designated in the Esmeralda-Southern Nye Resource Management Plan, Area A) (see Maps 20 and 21). The following areas will be avoided: all primitive areas (see Maps 28 and 29); Clayton Valley Sand Dunes (2,500 acres); Crescent Sand Dunes (3,000 acres); Amargosa-Oasis (480 acres); Cane Man Hill (680 acres); Rhyolite (425 acres); Tybo-McIntyre Charcoal Kilns (80 acres); Lunar Crater (39,680 acres); Lone Mountain (14,400 acres); and Railroad Valley riparian and wildlife habitat areas (except a portion west of the Grant Range). Refer to Appendix 14 for a legal description of these areas (except the primitive areas).

FLUID MINERALS

Objective:

To provide opportunity for exploration and development of fluid minerals such as oil, gas, and geothermal resources, using appropriate stipulations to allow for the preservation and enhancement of fragile and unique resources.

RMP Determinations:

1. A total of 5,360,477 acres (88% of the Tonopah Planning Area) will be open to fluid mineral leasing subject to standard lease terms and conditions.

2. A total of 607,799 acres will be closed to fluid mineral leasing (Berlin Town Site, 704 acres; Project Faultless, 2,560 acres; and Wilderness Study Areas (WSAs), 604,535 acres (see Map 34 and Appendix 14; for WSAs see also Wilderness Determinations and Maps 26 and 27).

3. A total of 72,400 acres will be open to fluid mineral leasing subject to seasonal restrictions because of crucial wildlife habitat (see Wildlife Determinations 3., 4., and 5.) (see Maps 34 and 35 and Appendix 14). (Some areas overlap, affecting acreage totals.)

4. A total of 50,425 acres will be open to fluid mineral leasing subject to no-surface-occupancy for the following areas: Amargosa-Oasis (490 acres); a portion of the Railroad Valley Area (3,480 acres); Cane Man Hill (680 acres); Rhyolite (425 acres); Tybo-McIntyre Charcoal Kilns (80 acres); Lunar Crater (39,680 acres); Mountain View Arrastra (40 acres); Moores Station Petroglyphs (40 acres); Jumbled Rock Petroglyphs (10 acres); Clayton Valley Sand Dunes (2,500 acres); and Crescent Sand Dunes (3,000 acres) (see Appendix 14).

   (*note*: The determinations made for mineral leasing include geophysical exploration. Waivers to these determinations will be considered if the identified resource values can be protected.)

LOCATABLE MINERALS

Objective:

To provide opportunity for exploration and development of locatable minerals such as gold, silver, copper, lead, zinc, molybdenum, etc., consistent with the preservation of fragile and unique resources in areas identified as open to the operation of the mining laws.

RMP Determination:

1. A total of 6,028,948 acres (99% of the Tonopah Planning Area) will be open to the operation of the mining laws (see Maps 24 and 25).

   Additional Locatable Minerals determinations are in the section on Lands and Rights-of-Way, Determinations 1.e., 8., 9., 10., and 11.

MINERAL MATERIALS

Objective:

Provide for the extraction of mineral materials such as sand, gravel, building stone, cinders, etc., to meet public demand.

RMP Determinations:

1. A total of 5,377,858 acres (88% of the Tonopah Planning Area) will be open to mineral material disposal under standard terms and conditions. Continue to provide mineral materials from existing authorized sources unless closed to meet specific management objectives of other resources. Open new sand and gravel pits as necessary.

2. Black Rock Lava Flow and Easy Chair Crater, a portion of the Lunar Crater Area, will remain closed to mineral material sales.

3. A total of 72,400 acres will be open to the extraction of mineral materials subject to seasonal restrictions because of crucial wildlife habitat (see Wildlife Determinations 3., 4., and 5.) (see Maps 34 and 35 and Appendix 14).

4. Close the following areas to mineral material disposal: Berlin Town Site (704 acres); Project Faultless (2,560 acres); Mountain View Arrastra (40 acres); Moores Station Petroglyphs (40 acres); Jumbled Rock Petroglyphs (10 acres); Amargosa-Oasis (490 acres); portions of the Railroad Valley Area (3,480 acres); Cane Man Hill (680 acres); Tybo-McIntyre Charcoal Kilns (80 acres); Rhyolite area (425 acres); Lunar Crater (39,680 acres); The Sump (1600 acres); The Gravel Bar (679 acres) (see Appendix 14); recreational facilities in the Extensive Recreation Management Area (estimated to be 60 acres total; however, specific locations have not yet been identified), and Wilderness Study Areas (604,535 acres; see Wilderness Determinations) (see Maps 34 and 35, and Appendix 14).

NONENERGY LEASABLE MINERALS

Objective:

To provide opportunity for the leasing and development of solid leasable minerals such as sodium, potassium, phosphate, etc.

RMP Determinations:

1. A total of 5,481,206 acres (90% of the Tonopah Planning Area) will be open to nonenergy mineral activities under standard terms and conditions.

2. Close the following areas (55,360 acres) to nonenergy mineral leasing:. Berlin Town Site (704 acres); Project Faultless (2,560 acres); Mountain View Arrastra (40 acres); Moores Station Petroglyphs (40 acres); Jumbled Rock Petroglyphs (10 acres); Clayton Valley Sand Dunes (2,500 acres), Crescent Sand Dunes (3,000 acres); The Sump (1600 acres); Lunar Crater (39,680 acres); Amargosa-Oasis (490 acres); portions of the Railroad Valley Area (3,480 acres); Cane Man Hill (680 acres); Tybo-McIntyre (80 acres); Rhyolite (425 acres); and recreational facilities in the Extensive Recreation Management Area (estimated to be 60 acres total; however, specific locations have not been identified) (see Maps 34 and 35, and Appendix 14). (Some areas overlap, affecting acreage total.) In addition, Wilderness Study Areas (604,535 acres; see Wilderness Determinations) will be closed to nonenergy mineral leasing. Those areas released by Congress from Wilderness consideration will return to multiple use.

3. A total of 72,400 acres will be open to nonenergy mineral leasing subject to seasonal restrictions because of crucial wildlife habitat (see Wildlife Determinations 3., 4., and 5.) (see Maps 34 and 35 and Appendix 14).

FIRE MANAGEMENT

Objective:

To protect natural resources from unacceptable damage by fire in a cost-effective manner with a high regard for private property and safety. Promote resource management through prescribed fire to maintain the natural component of the ecosystem.

RMP Determinations:

1. All wildfires in Fire Management Zone 1 will receive aggressive initial attack, to contain all fires in intensity levels 1 through 6, 90 percent of the time to 300 acres or less. All fire zones are shown on Maps 38 and 39.

2. Wildfires that threaten life and property will be kept to five acres or less 90 percent of the time utilizing the most cost-effective and efficient suppression action. This will include town sites, developed mines, ranches, powerlines, and other structures and property.

3. Wildfires that threaten resources such as critical watersheds, riparian areas, desirable range (salt desert shrub), sage grouse strutting grounds, sensitive plant species sites, cultural resource sites, and sensitive forage plant species (bitterbrush and mountain mahogany) will be kept to minimum acres utilizing suppression action which could suppress and/or divert the fire and be cost-effective and efficient.

4. If an approved natural prescribed fire plan is written, some wildfires in Fire Management Zone 2 may be allowed to burn to promote a more natural fire regime. The sagebrush/pinyon-juniper vegetation type is considered a fire-dependent ecosystem, and adverse ecological changes may result by total fire exclusion (e.g., pinyon pine-juniper encroachment of grassy areas or declining grass productivity because of increased sagebrush cover).

   The salt desert shrub vegetation type (i.e., Zone 1) is considered a fire-independent ecosystem that usually maintains vigor and composition without fire.

STANDARD OPERATING PROCEDURES

The following standard operating procedures will be applied to this plan.

Environmental Review and Management

In compliance with NEPA and CEQ regulations, BLM will prepare site-specific environmental reviews before actions proposed in this RMP/EIS are implemented, or prior to approval of any project authorized on the public lands. The environmental reviews provide site-specific assessments of the impacts from implementing these actions. As appropriate, these reviews are documented in Categorical Exclusion Reviews, Administrative Determinations, Environmental Assessments and Decision Records, or Environmental Impact Statements and Records of Decision. In addition, the environmental review identifies mitigating measures necessary to reduce adverse impacts of implementing a project or proposed action.

All future authorizations will be in conformance with the RMP. Existing authorizations will be brought into conformance when they are renewed.

Seasonal restrictions on activities which are included in this RMP to prevent disturbing of wildlife will apply to the following authorizations: fluid mineral leasing, nonenergy mineral leasing, mineral material sales, geophysical prospecting, right-of-way construction, off-highway vehicle events, construction of range improvements, activities authorized under the Recreation and Public Purposes Act (R&PP Act), and vegetation sales. In general, maintenance of rights-of-way, range improvement projects, and other facilities will not be restricted. Locatable mineral exploration and development activities will be encouraged to abide by seasonal restrictions but cannot be required to do so.

Determinations that state: "No land uses will be authorized which are incompatible with an area's values" will include such activities as rights-of-way grants, activities authorized under the Recreation and Public Purposes Act, off-highway vehicle events, vegetation sales, range improvement projects, nonenergy mineral leasing, mineral material sales, and geophysical prospecting, except where compatible with, or of benefit to, the resources being protected. Rights-of-way and other discretionary lands actions will be granted in avoidance areas only if no feasible alternative routes are available. Any such grants, leases, or permits will include appropriate stipulations to protect the area's special values. This will not affect maintenance of existing projects or rights-of-way. Livestock grazing will continue to be authorized unless specifically excluded.

For purposes of range management, the Rangeland Program Summary (RPS) will describe the allotment-specific objectives and management actions planned for livestock, wild horses and burros, and wildlife. It will also discuss the monitoring and range improvement projects needed to meet these allotment objectives. Updates of the RPS will explain and update monitoring efforts and results. The RPS will be issued subsequent to the Record of Decision.

Air Resources

Air quality is protected by the establishment of mitigation measures designed to prevent deterioration of air quality prior to authorizing actions. This ensures meeting State goals for air quality and limits allowable emissions from existing and new point or nonpoint sources. Common mitigation measures include watering roads and disturbed areas, the use of scrubbers/sprays, covered storage areas, and other measures to reduce emissions and pollutant concentrations to meet or exceed the standards of the Nevada Division of Environmental Protection.

Soil and Water Resources

Prior to authorizing land-use actions, and also during the allotment monitoring and evaluation process, soil and water resources will be protected by the establishment of mitigation measures designed to maintain or improve soil productivity, and to prevent or minimize soil erosion and floodplain sediment damage. To meet administrative needs the BLM will acquire appropriative water rights by applying for available water rights according to Nevada water law, or by assertion of a public water reserve.

Best Management Practices and appropriate mitigation will be identified during project-level environmental review and applied during project implementation for any ground-disturbing activity that may reduce soil productivity or cause surface erosion.

Visual Resource Management

Visual Resource Management (VRM) classes are delineated in the RMP based on an inventory conducted in accordance with BLM visual management procedures (Manual 8400). The individual VRM classes provide management objectives to be implemented as a part of all activities authorized in the *Tonopah RMP*. The overall goal is to protect or enhance the visual and natural aspect and attributes of the public lands while minimizing the impacts of authorized activities.

Visual resources will continue to be evaluated, using the Contrast Rating process, as a part of activity and project planning. These evaluations will consider the significance of the proposed project and the visual sensitivity of the affected area. Stipulations will be developed and attached to project authorizations to maintain designated VRM classes. Stipulations may include requirements to locate activity sites behind topographic features to hide them from view, modify access routes, color buildings and equipment to blend in with their surroundings, develop projects in phases, etc. If VRM class objectives cannot be met, the impacts to visual resources will be detailed in the project-level environmental analysis and used by the Authorized Officer as a factor in the decision to authorize or deny a proposed action.

To comply with BLM policy for Wilderness Study Areas (WSAs), as stated in BLM Manual H-8550-1, *Interim Management Policy for Public Lands Under Wilderness Review* (1995), WSAs will be managed as interim VRM Class II areas until Congress makes final wilderness decisions for Nevada BLM WSAs. This will comply with the policy to manage WSAs to avoid impairment of existing wilderness values. As of March 30, 1989, limitations were placed on the authorization of activities which cause surface disturbance that require reclamation to restore an area to a preproject condition. Following Congress' final wilderness decision, designated wilderness areas will be managed as VRM Class I areas. Lands not designated as wilderness will be managed according to the VRM classes designated in the RMP/ROD decisions.

Fish and Wildlife

Fish and wildlife habitat will continue to be evaluated as part of project-level planning. Such evaluation will consider the significance of the proposed project and the sensitivity of fish and wildlife habitat in the affected area. Stipulations will be attached as appropriate to assure compatibility of projects with management objectives for fish and wildlife habitat. Habitat improvement projects will be implemented where necessary to stabilize or improve unsatisfactory or declining wildlife habitat condition. Such projects will be identified through habitat management plans or other activity plans.

Sufficient forage and cover will be provided for wildlife. Forage and cover requirements will be incorporated into allotment management plans or their functional equivalent and will apply to specific areas of primary wildlife use.

Range improvements generally will be designed to achieve both wildlife and range objectives. Existing fences will be modified and new fences built so as to allow wildlife passage. Water troughs will be constructed to not exclude wildlife and bird ladders will be installed. Proposed projects are listed in Appendix 4.

Guzzlers constructed for wildlife will be designed for protection from domestic livestock and wild horses and burros.

In accordance with BLM guidelines for domestic sheep management in bighorn sheep habitat, no domestic sheep grazing will be authorized within nine miles of bighorn sheep habitat (see Maps 10 and 13).

Habitats for chukar and other upland game will be maintained and expanded through development of wildlife waters. Generally, no land disposal will be allowed within two miles of sage grouse nesting areas.

Special Status Species

The Endangered Species Act (ESA) of 1973, as amended, declares it the policy of Congress that all Federal Divisions and agencies will conserve endangered species and threatened species and utilize their authorities in furtherance of the purposes of the Endangered Species Act. In accordance with section 7 of the ESA, consultation with the U.S. Fish and Wildlife Service will be conducted on all Federal actions involving threatened or endangered species.

It is BLM policy to carry out the management of Nevada BLM Sensitive Species consistent with multiple-use for conservation of these species and their habitats and ensure that actions authorized or funded do not contribute to the need to list any of these species as threatened or endangered. In order to prevent listing of Nevada BLM Sensitive Species, BLM may enter into Conservation Agreements or Species Management Plans with the U.S. Fish and Wildlife Service.

A desert tortoise inventory may be required prior to any surface-disturbing activity, including plans of operations for locatable minerals, mineral leasing, off-highway vehicle events, rights-of-way, etc., on 70,600 acres of Non-Intensive Category III desert tortoise habitat.

In accordance with the Biological Opinion on livestock grazing in desert tortoise habitat, the following stipulation has been placed in affected grazing licenses: "Within Non-Intensive Category III desert tortoise habitat, livestock use may occur from March 1 to October 14, as long as forage utilization does not exceed 40 percent on key perennial grasses, forbs and shrubs. Between October 15 and February 28, forage utilization shall not exceed 50 percent on key perennial grasses and 45 percent on key shrubs and perennial forbs."

Forestry and Vegetative Products

The areas available for woodland harvest will be subject to the specific restrictions and withdrawals required by this RMP.

Permits will not be issued for the harvest of broadleaf trees, dead or green.

Pinyon nut gathering will be authorized on an individual basis, including within Wilderness Study Areas released by Congress for multiple-use purposes. Personal consumption of up to 25 pounds per year is allowed without permit.

Salvage of vegetative products may be authorized on areas subject to ground-disturbing activities.

Livestock Grazing Management

Resource improvement planning will be in accordance with the procedures outlined in BLM Handbook H-1741-1, *Renewable Resource Improvement and Treatment Guidelines and Procedures.*

The grazing management program assigns priorities to management efforts using a selective management approach. Under this approach grazing allotments are categorized into ``I," ``M," and ``C" management categories. The objectives for these categories are to: 1) *maintain* (M) the current satisfactory conditions; 2) *improve* (I) the current unsatisfactory conditions; or 3) manage *custodially* (C) while protecting existing resource values. Management priority will be given first to ``I" allotments, second to ``M" allotments, and third to ``C" allotments.

Range improvement projects will be addressed in environmental documents and will be constructed in accordance with BLM Manual 9113. Existing access or temporary roads will be used as much as possible. Temporary roads will be rehabilitated after use is completed.

The clearing of vegetation from project sites will be restricted to the minimum amount necessary to properly and safely complete the project.

All disturbed areas will be rehabilitated, where such action is necessary and/or practical, to replace ground cover and prevent erosion. Fences used to control cattle movement in areas inhabited by resident and migratory populations of deer, horses, and/or antelope will be 42 inches in height. Fences in these areas will consist of three barbed wires and a smooth bottom wire. The spacing of the wires starting from the ground will be 16 inches, 22 inches, 30 inches and 42 inches. Line posts shall be spaced at a distance of 16.5 feet between each post. Fences in bighorn sheep habitat will be a three-strand fence with spacing 20, 35, and 39 inches from the ground with a smooth bottom wire. Special design standards will be in accordance with the *BLM Handbook H-1741-1.* All fences will be designed to assure a minimum of impacts to wildlife, wild horses/burros, recreation, and visual resources.

Developed spring sources may be fenced and water provided for livestock and/or wild horses/burros away from the source. Water will be left at the spring source for wildlife use as required by Nevada Revised Statute 533.367, which states in part that "Before a person may obtain a right to the use of water from a spring or water which has seeped to the surface of the ground, he must ensure that wildlife which customarily uses the water will have access to it".

Maintenance of livestock management structures will be accomplished by the livestock operator through cooperative agreements and range improvement permits as specified in the BLM's 1982 *Rangeland Improvement Policy* (USDI, BLM, Oct. 1982).

Alteration of sagebrush areas either through application of herbicides, prescribed burning, or by mechanical means will be in accordance with procedures specified in the Western States' Sage Grouse Guidelines and the Memorandum of Understanding between the Nevada Division of Wildlife and the Nevada BLM. All vegetation treatment projects will be coordinated with the Nevada Division of Wildlife at least one year in advance of implementation of the project.

Application of herbicides on proposed treatment areas to reduce sagebrush and other plant species will be in accordance with procedures established in BLM Manual 9222 to prevent impairment of nontarget species.

Vegetative manipulation that will alter the potential natural plant composition will not be allowed in riparian areas. This includes the introduction of nonnative species.

Wild Horse And Burro Management

It is the intent of the BLM to manage wild horses and/or burros and their habitat within areas occupied in 1971. Management is to be accomplished in a manner designed to achieve a thriving natural ecological balance and multiple-use relationship with other resource users. The suitability of some areas to support wild horses and/or burros will be reassessed as appropriate in light of new information from monitoring and emergency gathers.

Management of the wild horses and/or burros will also be guided by Herd Management Area Plans (HMAPs) or their functional equivalent, when appropriate. The plans will be developed through consultation and coordination with interested parties and will be coordinated with livestock, wildlife, and other resource plans. The management plans may include, but not be limited to, discussions of seral stages, range trends, habitat requirements, dietary needs, water requirements, and wild horse and/or burro reproductive capabilities.

Cultural Resources

The National Historic Preservation Act of 1966, as amended; the Archaeological and Historic Preservation Act of 1974; the Archaeological Resources Protection Act of 1979; the American Indian Religious Freedom Act of 1978; the Native American Graves Protection and Repatriation Act of 1990; FLPMA; and Executive Order 11593 provide for the protection and management of cultural resources. These laws are implemented through the following Federal Regulations: 36 CFR 60, 36 CFR 800, 43 CFR 7, and 43 CFR 8365.1-5, (a)(1).

The BLM is required to identify, evaluate, and protect cultural resources on public lands under its administration and to ensure consideration of cultural resources prior to initiation of proposed BLM-authorized activities. If an area will be in any way affected by those activities, a cultural resources inventory will be conducted. In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, eligibility determinations for listing on the National Register of Historic Places are made in consultation with the Nevada State Historic Preservation Office. A determination of effects to eligible properties is also made in consultation with the Nevada State Historic Preservation Office.

Avoidance of cultural properties is the preferred mitigation. However, avoidance is inappropriate if 1) the project will create ongoing activity in the area, or 2) the project will greatly increase access to the area. Either of these conditions could lead to increased vandalism and/or accidental damage. Significant cultural properties to be protected through avoidance will be marked in the field and monitored on a periodic basis.

If eligible properties cannot be avoided, appropriate mitigating measures will be developed in consultation with the Nevada State Historic Preservation Office and the President's Advisory Council on Historic Preservation. No action will be authorized until these agencies are consulted.

Cultural properties without National Register eligibility determinations will be treated as eligible properties until such determinations can be made.

Federal agencies are required to consider the views of Native Americans when a proposed undertaking may be in conflict with traditional lifeways or religious values. The American Indian Religious Freedom Act requires consultation with Native American religious and secular leaders to identify geographic areas which may be associated with traditional lifeways and religious practices.

Lands

Land tenure adjustments are discretionary. No lands will be disposed of unless they are identified in the RMP.

Public lands identified for disposal may be made available for sale, exchange, agricultural entry, lease, or patent for recreation or public purposes. Some lands identified for disposal may not be sold due to lack of interest, and some may be retained in Federal ownership as a result of site-specific application of the land-ownership adjustment criteria.

Exchanges are authorized under Section 206 of the Federal Land Policy and Management Act (FLPMA) of 1976. Exchanges are the preferred method of acquisition when other methods, such as conservation easements or management agreements, will not protect special value areas or resources. Exchanges must be in the public interest. The selected public land must be identified in an approved land-use plan for disposal, and the offered private land may be identified in an approved land-use plan for acquisition.

There are three authorities for the disposal of public land specifically for agricultural purposes: the Desert Land Act, the Carey Act, and the General Allotment Act. Disposal of public land for agricultural purposes must meet the requirements of one of the three acts listed above and have a supporting permanent water source permitted by the Nevada State Engineer.

In order for public land to be sold, it must meet one of the following criteria set forth in Section 203(a) of the *Federal Land Policy and Management Act of 1976*:

--the land is difficult or uneconomic to manage as a part of the public lands, and it is not suitable for management by another Federal Department or agency.

--the land was acquired for a specific purpose: and it is no longer required for that, or any other, Federal purpose; or

--disposal of the land will serve important public objectives that can be achieved prudently or feasibly only if the land is removed from public ownership; and these objectives outweigh other public objectives or values that will be served by maintaining the land in Federal ownership.

Site-specific decisions regarding land ownership adjustments within the Tonopah Planning Area are to be based on whether the lands are needed for BLM programs, or whether or not they are considered more valuable for other purposes. The following criteria are applied to site-specific determinations for lands that are within areas identified for disposal or acquisition:

A. Public resource values, including, but not limited to:

--threatened, endangered, or sensitive species habitat

--sites or places listed or eligible for inclusion on the National Register of Historic Places

--mineral potential

--wilderness areas and areas being studied for wilderness

--riparian areas, including springs and seeps

--nesting/breeding habitat for game birds/animals

--big game seasonal habitat

--recreation potential

--visual resources

--other designations authorized by law

B. Manageability

C. Suitability for development

D. Accessibility of the land for public use

E. Encumbrances

F. Social and economic impacts of land tenure adjustments

G. Consistency with other agency/governmental entity plans and policies.

H. Sites that contain hazardous materials.

These land-ownership adjustment criteria are considered in environmental analyses and decision prepared for specific adjustment proposals.

In addition, no disposals are allowed within two miles of sage grouse strutting grounds, and n disposals for agricultural purposes are allowed on lands with agricultural soil ratings of Class IV c higher, or with soils having a high susceptibility to erosion. The disposal of land will not be allowed it would fragment ownership patterns.

Public lands within areas which have not been identified for disposal are retained in Federal ownershi and are managed by BLM. Unless these lands are dedicated to a specific use or uses, or are include within avoidance or exclusion areas, they are available for rights-of-way, FLPMA leases, and airpor leases. Because color-of-title and mineral entry patents are nondiscretionary actions, all public land meeting specific regulatory criteria may be patented by these methods.

Land use permits and leases are granted under the authority of Section 302(b) of the Federal Lanc Policy and Management Act of 1976. Permits are issued for short-term, low-impact uses of the public lands. Leases are a long-term management tool used particularly where future disposal or dedicatior to another particular land use is contemplated. In general, all lands within the Tonopah Planning Area which have not been dedicated to a specific use or uses are open to consideration for land-use permits and nonmajor leases. Permit and lease applications are evaluated on an individual basis. The same public resource values considered prior to disposal are considered prior to the issuance of a permit or lease. Major leases must be identified in an approved land-use plan.

It is BLM policy to identify, abate, and prevent unauthorized use of the public lands. Existing unauthorized uses of the public lands are resolved through termination, short-term permit, lease, sale, exchange, or by other appropriate means.

Since the passage of the Federal Land Policy and Management Act in 1976, the BLM has been in the process of reviewing all withdrawals and classifications of public lands. All new proposed withdrawals must be identified in an approved land-use plan.

Unless the land has been dedicated to a specific use or uses, public land within theTonopah Planning Area is available for consideration for linear rights-of-way for access, and for utility transportation and distribution purposes. Such land is also available for areal rights-of-way purposes.

Prior to issuance of a right-of-way authorization, a site-specific environmental analysis is performed which considers, among other things, habitats of threatened, endangered, or Nevada BLM Sensitive Species; sites or places listed or eligible for inclusion on the National Register of Historic Places; wilderness areas and areas being studied for wilderness; riparian areas; nesting/breeding habitat for animals; big game seasonal habitat; visual resources; and other considerations mandated by law.

Designated right-of-way corridors within the Tonopah Planning Area are three miles wide except where topographic constraints exist. Grants for rights-of-way are still required for facilities placed within designated corridors. Designation of a corridor does not necessarily mean that future rights-of-way are restricted to corridors, nor does it mean that there is a commitment by the BLM to approve all right-of-way applications within corridors. Proposed disposals of land within corridors are analyzed to determine the impacts that these proposed disposals might have on future right-of-way activities.

Recreation

A broad range of outdoor recreation opportunities will continue to be provided on all segments of the public land, subject to the demand for such opportunities and the need to protect other resources. Special Recreation Management Areas, areas of concentrated use, and existing facilities will receive first priority for operation and maintenance funds. Investment of public funds for new recreation developments will be permitted only on land identified to remain in public ownership.

Recreation resources will continue to be evaluated on an individual basis as part of activity and project-level planning. Such evaluations will consider the sensitivity of, and the impacts on, recreation resources in the affected area. Stipulations will be attached as appropriate to assure the compatibility of projects with recreation management objectives.

Special recreation use permits will be authorized on an individual case basis.

Decisions regarding the designation of areas open, limited (restricted), and closed to motorized vehicle access have been made in the RMP. An exception to designations in the RMP is emergency actions which may be necessary due to:

1. The need to minimize damage to soil, watershed, vegetation or other resource values.

2. The need to minimize harassment of wildlife or the degradation of wildlife habitat, especially habitat for threatened, endangered, or Nevada BLM sensitive species.

3. The need to promote user safety and protect the visiting public from hazardous situations.

Areas which are not designated as limited or closed will remain open for motorized vehicle use.

Existing mines will be closed to off-highway vehicle use by the public. The areas will remain closed until they have been reclaimed and the reclamation bond has been released.

Public land within areas closed to motorized vehicle use will be closed year-long to all forms of motorized vehicle use except for emergency or authorized vehicles.

Vehicle use in Wilderness Study Areas (WSAs) is currently managed as limited to existing (1980 inventory) roads, trails and ways. This is a temporary designation which overrides the decisions in the RMP, pending final decisions by Congress with regard to WSAs. Following final Congressional action,

those areas designated as wilderness will be closed to motorized vehicle use, subject to valid existing rights and authorized nonconforming uses. Motorized vehicle use on lands which are not designated as wilderness will be managed according to the decisions in this RMP and ROD.

The BLM, Nevada State Office has published a camping stay limit (effective November 5, 1993) for the public lands it manages: "A person or persons may not occupy undeveloped public lands or designated sites or areas for more than fourteen days within a twenty-eight consecutive day interval. Following the fourteen days, the persons and personal property must relocate to a site outside of at least a twenty-five mile radius from the occupied site or non-BLM administered land for a period of fourteen days".

In order to protect resources, or for administrative purposes, an Authorized Officer may, by posting notification, close a given site to occupancy, even if the same person or persons have not occupied the site for fourteen consecutive days."

All BLM lands that are not limited in the RMP are open to all individual, commercial, and competitive outdoor recreation uses. Opportunities for exploring the back-country by vehicle, hunting, camping, sightseeing, and hiking are encouraged. There are no nationally significant river segments, as defined in the National Wild and Scenic Rivers Act of 1964, in the Tonopah Planning Area.

Areas of Critical Environmental Concern

Decisions to designate ACECs will be prepared during the next two years as a Plan Amendment to the Tonopah RMP. A plan of operations will be required for any proposed mechanized disturbance in a designated ACEC during the search for, or the exploitation of, locatable minerals. No mineral material sales will be allowed within any ACEC unless specified otherwise in the Plan Amendment.

Wilderness

BLM policy requires that all Wilderness Study Areas (WSAs) be managed in accordance with the provisions of Section 603 (c) of the Federal Land Policy and Management Act and the BLM *Interim Management Policy for Lands Under Wilderness Review* (IMP) so as not to impair their suitability for preservation as wilderness. The IMP provides management policies for WSAs between the time of WSA designation (11/15/80) and final decisions by Congress regarding these areas. The IMP contains specific management direction for activities in WSAs which may occur or be authorized.

The specific management determinations identified in the RMP are those that may take place if the WSAs are released from wilderness consideration by Congress. Some of the determinations are compatible with the IMP and can be implemented at any time, whereas others must await Congress' final determinations. Also some RMP determinations may not comply with the IMP's nonimpairment requirements. These decisions may not be implemented until after Congress' final decision releasing the nonwilderness lands from the requirements and restrictions included in the IMP Policy.

Should Congress designate wilderness areas, the RMP will be maintained to include these new designations, and to modify determinations which conflict with wilderness management objectives. Management of areas designated as wilderness will be guided by the requirements of the Wilderness Act of 1964, specific enabling legislation, and the BLM's wilderness management procedures. While site-specific management objectives for wilderness areas will be included in future wilderness management plans, certain actions are nondiscretionary, including closure to motorized vehicle use (except for valid existing rights and approved nonconforming uses by permit) and segregation from mineral entry and fluid-mineral leasing.

Fluid Minerals

Oil and gas leases and geothermal leases grant the right to the operator to explore for, and to produce oil and gas, and geothermal energy. Leases are subject to certain terms and conditions which provide for compliance with applicable laws, ordinances, and regulations pertaining to fire, sanitation, conservation, water pollution, fish and wildlife, safety, protection of property, and reclamation.

In addition to the terms and conditions of the leases, stipulations may be applied to site-specific applications to provide for stringent environmental protection of conflicting resources. These stipulations are developed by a multidisciplinary team as part of the environmental analysis process.

Since the passage of the Federal Oil and Gas Leasing Reform Act of 1987, all Wilderness Study Areas (WSAs) have been closed to mineral leasing.

Geophysical exploration for oil and gas, and for geothermal resources may take place before or after the leasing of the lands. These actions will be reviewed by a multidisciplinary team in the Tonopah Planning Area to identify and mitigate resource-related conflicts.

BLM actively encourages and facilitates the private development of public land mineral resources in a manner that satisfies national and local needs, and provides for economically and environmentally sound exploration, extraction, and reclamation practices.

Land-use plans and multiple-use management decisions of the BLM will recognize that mineral exploration and development can occur concurrently or sequentially with relation to other resource uses.

Consultation with the U.S. Fish and Wildlife Service is required per section 7 of the Endangered Species Act prior to approval of an Application for Permit to Drill (APD) or other lease operations, if a proposed listed or listed threatened or endangered species, or its critical habitat, is likely to be affected by project activities. If there is deemed to be any adverse impact the proposal would be modified or the request denied.

Actions which would adversely impact a Nevada BLM sensitive plant or animal species will be modified in order to prevent possible future listing of these species as threatened or endangered.

Locatable Minerals

BLM provides for mineral entry, exploration, location, and operations pursuant to the mining laws in a manner that 1) will not unduly hinder the mineral activities, and 2) assures that these activities are conducted in a manner which will prevent undue or unnecessary degradation of the public land.

Notification to the Authorized Officer is required on all operations in project areas in which surface disturbance will be five acres or less.

A Plan of Operations and a Reclamation Plan are required in situations in which there will be more than five acres of cumulative unreclaimed surface disturbance in a project area. These two plans are also required for any mining activity on special category lands, such as ACECs and areas closed to off-highway vehicles. Appropriate off-site mitigation may be negotiated during a plan of operations review for locatable mineral actions when an irretrievable loss of important habitat is unavoidable, or a significant long-term adverse impact will occur. The preferred alternatives to off-site mitigation are avoidance of critical and crucial habitat and reclamation of disturbed habitat to approximate pre-disturbance productivity.

The Authorized Officer may require modifications of Plans of Operations to meet the requirements of the regulations and to prevent undue or unnecessary degradation of public land.

Plans of Operations cannot be approved until Section 106 of the National Historic Preservation Act, and Section 7 of the Endangered Species Act, and the National Environmental Policy Act have been complied with.

Reclamation of disturbed areas to meet BLM standards is required for all levels of activity: Casual Use, Notice, or Plan of Operations.

Additional regulatory requirements will be enforced in WSAs through regulations (43 CFR 3802) and through the Interim Management Policy (IMP) for WSAs.

All operations shall comply with Federal and State laws, including those relating to air quality, water quality, solid wastes, fisheries, wildlife and plant habitat, and archaeological and paleontological resources.

The BLM will conduct validity examinations, reviewing the validity of mining claims to determine if a discovery has been made, under the following conditions:

1) Where a mineral patent application has been filed and a field examination is required to verify the validity of the claim(s).

2) Where there is a conflict with a disposal application, and it is deemed in the public interest to conduct a validity examination; or where the statute authorizing the disposal requires the removal of mining claims that are not valid. If the validity examination made in the latter case were to show that the mining claim was valid, the disposal action could not be completed.

3) Where the land is needed for a Federal program.

4) When a mining claim is occupied under the guise of the mining law and flagrant or questionable misuse of the land is observed, the BLM will undertake a review of the occupancy based on current regulations. If it is found, in fact, that such use is not necessary for, and reasonably incident to, mineral development, BLM will act to terminate the use and seek compensation for damages. Validity of the claim would not be relevant in this case.

Withdrawals from mineral entry will be enacted only in cases in which there are significant resource values that cannot be adequately protected under the regulations concerning surface management. Such withdrawn acreage may include areas recommended for wilderness designation, sensitive species habitat, riparian areas, areas possessing important historical and cultural resources, and areas set aside for recreational development.

Bonding will be required for all notices and plans of operations to ensure that satisfactory reclamation takes place. All operations using cyanide will follow the requirements in BLM's Nevada Cyanide Management Plan.

The BLM will coordinate each mine plan and mine closure in conjunction and consultation with the Bureau of Reclamation and Regulation of the Nevada Division of Environmental Protection. This coordination ensures that the State of Nevada reclamation laws are implemented on Federal and private lands, and that all necessary State permits will be issued and followed.

Mineral Materials

Mineral material disposal will not occur in Wilderness Study Areas.

All mineral material disposals are discretionary. Appropriate terms and conditions are applied to ensure that the permittee will comply with all applicable laws and environmental safeguards.

Disposal to State, county, and municipal governments will generally be processed through the issuance of free-use permits (FUPs).

In all mineral material disposals the BLM will strive, wherever possible, to use existing mineral material pits.

Disposal of such common-variety mineral materials as sand and gravel may not be made from mining claims, unless the date of the mineral materials contract or permit precedes the date of the location of the claim. This policy applies to all types of mining claims including placer, lode, millsite, and tunnel site claims. Mining claimants may not sell mineral materials which are on their unpatented mining claims.

Nonenergy Leasable Minerals

An environmental analysis will be conducted on the exploration phase of each prospecting permit and on any production activities associated with a lease. The environmental analyses are prepared by a multidisciplinary team and are used to determine any special stipulations necessary for the protection of surface resources.

Fire Management

The fire management program is guided by the approved Battle Mountain District Fire Management Activity Plan and this RMP.

Every wildfire within the Tonopah Planning Area will have an appropriate action taken. The action will be planned and executed in such a way as to minimize the loss of resources and the costs of suppression. Such actions must also be consistent with resource management objectives.

There will be no use of fire retardant in riparian areas, WSAs, sensitive visual resource management areas, and structure archaeology sites, unless such use is authorized by the Authorized Officer.

All wildfires, after they are declared out, will be evaluated by a rehabilitation team to determine the actual needs related to the rehabilitation. Corrective measures will be taken to prevent erosion and future resource degradation when it is feasible to rehabilitate areas damaged by actual suppression action. The rehabilitation team will also determine if any fire rehabilitation, including protection from grazing, is needed to revegetate the burned area, and to protect the site from erosion and invasion by undesirable plant species. Emergency fire rehabilitation will follow procedures outlined in *BLM Handbook H-1742-1* and the Battle Mountain District approved Normal Fire Rehabilitation Plan.

When identified as the least costly and/or most effective method, prescribed fire techniques will be used as a resource tool to meet vegetative objectives as stated in this RMP. Prescribed fire can be used to improve wildlife habitat, watershed improvement and other types of vegetative manipulation to meet vegetative objectives. In addition it can be used solely, or in combination with other fuel/vegetative manipulation techniques. When fire is used as a management tool, an approved prescribed burn plan and wildfire prescription must be prepared in advance of planned or unplanned ignition in accordance with *BLM Manual 9214*.

Integrated Pest Management

It is the policy of the BLM that all alternatives available through integrated pest management will be explored before any pest-control program decision is implemented. This includes all pest-control programs done under BLM proposals, cooperative projects, or on lands under permit or lease. Integrated pest-control methods include, but are not limited to, biological, cultural, and chemical methods. In choosing methods, due consideration will be given to economics, efficacy, and the environment. All integrated pest-management activities will follow policies established in (a) BLM Manual 9011, Chemical Pest Control Sections .06B through .12D; (b) BLM Manual 9015, Integrated Weed Management Sections .2 through .4, .8 through .83, and Appendix 1; (c) BLM Handbook H-9011-1, Chemical Pest Control Sections I-B 1-3; and (d) other sources as appropriate.

Hazardous Materials

The BLM will not authorize the disposal of hazardous materials on public lands. When hazardous materials are located on public lands, the following sequence of actions will occur: reporting, necessary site security, coordination of procedural cleanup, and monitoring results of cleanup. Actions taken by the BLM can also include prosecution of those responsible for illegal dumping.

The BLM ensures that the initiators of actions which use hazardous materials on public land have the necessary permits from the State of Nevada and, if necessary, the Environmental Protection Agency, which are designed to protect the environment. These permits become conditions of approval by the BLM for proposed actions on Federal lands.

PLAN IMPLEMENTATION, MITIGATION AND MONITORING, EVALUATION, MAINTENANCE, AND AMENDMENT

Implementation of some determinations will begin immediately upon approval of this RMP. An Implementation Schedule will be developed within a reasonable timeframe (90 days) for the remaining determinations. This schedule will establish priorities and give a basis for short-term and long-term budget requests.

The Tonopah RMP is intended to be a dynamic document which must be routinely monitored and maintained, and periodically amended, to remain viable. The intent of monitoring is to document the effect on the environment from implementing the RMP to ensure that management actions are meeting their intended purpose. The environmental effect of any future changes or additions to the RMP will be formally monitored as well.

The Standard Operating Procedures section of this document explains most of the monitoring procedures and mitigation measures in common use. Progress in implementing the RMP will be monitored yearly through an Implementation Plan, and the RMP itself will be re-evaluated every five years to address how well it continues to serve as a guide to effective land management. The evaluation process serves to judge the success of RMP maintenance (described below) in keeping the plan current, and to assess the need for plan amendments. Additional monitoring and mitigation measures will be enacted as needed in response to environmental analyses for specific projects, and will be identified in such documents as environmental impact statements for proposed mining ventures, habitat management plans for wildlife management, allotment management plans for livestock grazing, etc.

Routine RMP maintenance consists of making minor changes in data, including posting of new data and information, and posting of corrections where errors have been found. In general, plan maintenance does not change the scope or effect of any of the RMP determinations, but by keeping the plan current it extends its useful life.

A plan amendment, in contrast to plan maintenance, changes a part of the existing RMP or adds to it, or allows new proposals to be considered and incorporated. The need for a plan amendment is identified through plan implementation and through monitoring and evaluation findings, or in response to internally or externally initiated proposals which do not conform to the RMP, but which do warrant consideration. Other events which could require a plan amendment include 1) changes in BLM policy, such as statutory requirements; 2) new data or information becomes available; 3) changes in management emphasis; and 4) court orders. Plan amendments adapt the RMP to new and changing values, thereby making the plan more useful and extending its life.

CONSISTENCY

Under Section 202 of the Federal Land Policy and Management Act of 1976 (FLPMA), all BLM plans must be consistent, insofar as possible, with resource-related plans officially approved or adopted by State and local agencies. The Division of State Lands was directed by the 1983 State Legislature (Senate Bill 40) to "prepare, in cooperation with appropriate State and local agencies and local governments throughout the State, plans or policy statements concerning the use of lands in Nevada which are under Federal management." The purpose of the plans is to provide public land-management policies developed by State and local agencies to the various Federal agencies for their use in managing public lands in Nevada. The Esmeralda County Board of Commissioners on April 16, 1985, adopted the Esmeralda County Policy Plan for Public Lands. The Board of Commissioners of Nye County on April 3, 1985, unanimously approved the Nye County Policy Plan for Public Lands. The relationship between the RMP and the Esmeralda County Policy for Public Lands is discussed in Appendix 12. The relationship between the RMP and the Nye County Policy for Public Lands is discussed in Appendix 13.

In 1994, the Nye County Board of Commissioners approved the Nye County Comprehensive Plan. The stated purpose of the Comprehensive Plan is to serve as a guide to the Nye County Board of Commissioners on all matters of growth and development. The public lands portion of the Comprehensive Plan has not yet been developed. Thus, no meaningful comparison of the RMP and the Comprehensive Plan can be made at this time.

PUBLIC INVOLVEMENT

Scoping

Once the determination was made to prepare a new land-use plan for the Tonopah Planning Area, an involved process of preparatory activities occurred. These activities included assembly of existing resource data; developing a public participation plan, which included how to involve other Federal agencies, State and local governments, interests groups, Indian Tribes, and the general public in the preparation of this RMP; preparation of an analysis of the management situation; a discussion of the existing environment and any related concerns and problems with the management of the natural resources; and assembly of a multidisciplinary team to write the document.

The public participation process began in February, 1990, with the publication of a "Notice of Intent" to prepare a resource management plan for the Tonopah Planning Area in the Federal Register (Vol. 59, No. 29, February 12, 1990). On February 13, 1990, a scoping letter was sent to more than 400 individuals, including State and Federal agencies, units of local government, interest groups, and members of the public. This letter invited comment on planning issues, planning criteria, management, and resource concerns identified by BLM managers and resource specialists. The letter also announced three informal public workshops to be held in March, 1990, in Tonopah, Carson City, and Las Vegas, to receive public input. The public was encouraged to become involved in the planning process, and to submit comments at any time during plan development. Announcement of the public workshops was also made through local newspapers.

The first scoping meeting was held on March 1, 1990, in Tonopah, Nevada; the second on March 6, 1990, in Carson City, Nevada; and the third on March 8, 1990, in Las Vegas, Nevada. BLM personnel assigned to prepare the RMP were present at each meeting to outline the planning process, to explain planning issues and planning criteria, and to discuss the concerns of those in attendance. More than 80 people attended the three meetings. During the scoping period, 74 comment letters were received.

On June 1, 1990, a letter was sent to approximately 190 interested individuals, agencies, and groups who had responded to the scoping letter. The letter summarized the results of the scoping process, identified the final planning criteria to be used in the development of the RMP, and identified the issues to be addressed in the Draft Plan. An update letter was mailed to all interested parties on May 3, 1991 to inform them that work was progressing on development of the alternatives to be considered in the Draft Plan.

Draft RMP/Draft EIS

The Draft Tonopah RMP/EIS was published and made available to the public on June 4, 1993 for a 90-day public comment period which ended on October 1, 1993. Approximately 200 individuals and organizations had expressed an interest in the use and management of public land for this area. All were sent copies of the Draft RMP/EIS. Included in this group were all grazing permittees and lessees within the planning area, Nevada Congressional Delegation, appropriate members of advisory councils and boards, and various libraries.

The Notice of Availability was published in the Federal Register on Thursday, June 24, 1993 (FR Vol. 58, No. 120). Public meetings to obtain public comment were held in Carson City, Nevada on August 17, 1993; in Las Vegas, Nevada on August 19, 1993; in Beatty, Nevada on August 24, 1993; in Goldfield, Nevada on August 25, 1993; and in Tonopah, Nevada on August 26, 1993. There were 13 attendees at the Carson City meeting, nine at the Las Vegas meeting, 12 at the Beatty meeting, 28 at the Goldfield meeting, and 41 at the Tonopah meeting.

Proposed RMP/Final EIS

A total of 93 timely comment letters were received during the 90-day comment period for the Draft Plan. Each letter was reviewed and evaluated for substantive comments which addressed the content of the plan and the analysis of its management actions. Comments from these letters, as well as oral comments made at the public meetings, were used to develop the Proposed Tonopah Resource Management Plan and Final Environmental Impact Statement.

Copies of most of the comment letters were printed in the Proposed RMP, along with a response to each of the substantive issues identified during comment review. To save printing costs, letters over 10 pages in length, and attachments to letters, were not printed in this document. All materials received during the comment period are available for review at the Tonopah Field Station.

Each issue identified for response in the comment letters was assigned a number in the left margin. The response to each issue, with corresponding number, follows in the response section of the same chapter in the Proposed RMP. In addition, eight other letters were received after the close of the comment period. Comments in these letters were duly considered in developing the Proposed RMP; however, they were not reproduced in that document.

On December 9, 1993, a letter was sent to each timely respondent acknowledging receipt of his or her comment letter. This particular letter informed the respondents how their comments would be evaluated and incorporated into the Proposed RMP/Final EIS.

Formal consultation was conducted with the U.S. Fish and Wildlife Service in accordance with the Endangered Species Act. The Biological Opinion on Implementation of the Proposed Plan is reproduced in Appendix 15.

The Proposed Plan was made available to the public on October 21, 1994 for review and a 30-day protest period (see Environmental Protection Agency's Federal Register "Notice of Availability" of October 21, 1994). The protest period ended on November 21, 1994, with all protests having to be postmarked by that date. Twenty protests were filed with the BLM Director by that date.

The twenty protest letters were forwarded to the BLM Washington Office (WO) for review of substantive comments and for final WO decisions on revisions to the RMP. Following extensive WO review and consideration, response letters were drafted to each of the protestors. The last of these letters was mailed on April 9, 1997.

As noted previously, the major effect of these protests was to withhold decisions concerning designation of Areas of Critical Environmental Concern. Resolution of this issue will be developed in a Plan Amendment to the RMP. Some of the protest letters also guided efforts to make the RMP Determinations more readily understood, as reflected in the amended wording of some of the Determinations in this Approved RMP.

This RMP and Record of Decision are being distributed to approximately 300 addresses, including Federal, State, and local agencies; various interest groups and organizations; and political entities. Copies of the complete mailing list, including individuals, are on file at the Tonopah Field Station.

Mailing List

The following is a listing of groups that are on the Tonopah Resource Management Plan mailing list. The Draft RMP and the Proposed RMP, as well as this document, were sent to each entity or individual on the list. This mailing list was updated continually throughout the development of this plan.

Congressional Delegations

Honorable Richard H. Bryan
Honorable Harry Reid
Honorable Jim Gibbons
Honorable John E. Ensign

Federal Agencies

Advisory Council on Historic Preservation
Department of Agriculture
- Forest Service
- Soil Conservation Service

Department of Defense
- TFWC/DA Nellis AFB

Department of the Interior
- Bureau of Indian Affairs
- Bureau of Mines
- Fish and Wildlife Service
- Geological Survey
- National Park Service
- Office of Environmental Affairs

Environmental Protection Agency

State Agencies

Nevada Department of Wildlife
Nevada Department of Minerals
Nevada State Clearing House

State Agencies (cont.)

Nevada Commission for the Preservation of Wild Horses
Office of the Governor

Local Government

Beatty Town Board
City of Gabbs
Nye County Commissioners
Nye County Planning Department
Esmeralda County Commissioners
Tonopah Town Board

Native American Councils

Las Vegas Colony Council
Lovelock Tribal Council
Reno Sparks Indian Council
Shoshone Paiute Business Council
Summit Lake Paiute Council
Tribal Council of the Te-Moak Western Shoshone Indians of Nevada
Washoe Tribal Council
Wells Indian Council
Yerington Tribal Council
Yomba Tribal Council

APPROVAL

The approval of this Record of Decision for the Tonopah Resource Management Plan completes the planning and environmental analysis process for this planning effort. An amendment to this management plan concerning the ACECs nominated during this planning effort will be initiated shortly. It will begin with a "Notice of Intent" published in the Federal Register and a letter being sent to all entities on the mailing list. It is anticipated that this amendment will be completed within a two-year period following its initiation.

Ann J. Morgan
State Director, Nevada

10-2-97
Date

APPENDIX 3
OFF-HIGHWAY VEHICLE DEFINITIONS

1. "Off-Highway vehicle" - any motorized vehicle capable of, or designed for, travel on or immediately over bare land or other natural terrain, excluding: (1) any military, fire, search and rescue, or law enforcement vehicle while being used for emergency purposes; (2) any vehicle use expressly approved by the Authorized Officer; (3) vehicles in official use; and (4) any combat support vehicle when used in times of national defense emergency.

2. "Official use" - use by an employee, agent or designated representative of the Federal government or one of its contractors, in the course of carrying out duties.

3. "Trail" - an unmaintained way. For example, a jeep 2-track or an ATV/motorcycle track.

4. "Open area" - an area where motorized vehicle use is permitted both on and off-road.

5. "Closed area" - an area where motorized vehicle use is prohibited. Use of vehicles in closed areas may be approved by the Authorized Officer for special purposes or legal requirements.

6. "Off-road" - any motorized vehicle use not on an existing road or trail. This refers to cross-country travel.

7. "Road" - a way that is improved by mechanical means to ensure relatively regular and continuous use by vehicles. A way maintained solely by the passage of vehicles does not constitute a road.

8. "Roadless" - the absence of roads which have been improved and maintained by mechanical means to ensure relatively regular and continuous use.

9. "Improved and maintained" - actions taken physically by man to keep the road open to vehicular traffic. Improved does not necessarily mean formal construction. Maintained does not necessarily mean annual maintenance.

10. "Limited to existing roads and trails" - motorized vehicle use permitted on all roads and trails in the area unless otherwise signed as closed. Motorized vehicle use is not permitted on roads and trails that have been physically closed through reclamation actions. BLM will not prepare an activity plan/map for areas that are limited to existing roads and trails. All authorized public land users who hold a permit or license (i.e. grazing permittees, wood permits, hunting license, right-of-way holders, mining claim, etc.) may drive off-road if required to fulfill requirements of their permit or license. Motorized vehicles must park within 100 yards of an existing road or trail for camping. All off-road vehicle use must be limited to the minimum necessary to accomplish the task and to prevent undue or unnecessary degradation to the area. Organized events, wood cutting and land treatment projects will be handled on a case-by-case basis. Emergency services and/or law enforcement activities are exceptions to these policies.

APPENDIX 4 (Continued)
PROPOSED RANGE IMPROVEMENT PROJECTS[1]

ALLOTMENT NAME	NUMBER	TYPE OF IMPROVEMENT	UNITS
Monitor	0077	Fence Cattleguard Well Trough Pipeline Vegetation Manipulation	41 miles 7 each 1 each 3 each 3 miles 8,725 acres
Monte Cristo	0104	Well Pipeline Trough	2 each 6 miles 4 each
Montezuma	0094	Well Pipeline Trough Fence	2 each 5 miles 5 each 2 miles
Morey	0083	Fence Cattleguard Spring Development Trough Pipeline	12 miles 3 each 1 each 2 each 2 miles
Nyala	0088	Fence Cattleguard Well Trough Pipeline Earthen Reservoirs	38 miles 5 each 3 each 6 each 9 miles 2 each
Ralston	0076	Fence Cattleguard Well Trough Pipeline	113 miles 10 each 3 each 7 each 17 miles
Razorback	0093	Well	1 each
Red Springs	0091	Pipeline Trough Fence	2.5 miles 1 each 6.5 miles
Reveille	0085	Fence Cattleguard Well Trough Pipeline	140 miles 14 each 2 each 4 each 5 miles
San Antone	0073	Fence Cattleguard Spring Development Trough Pipeline	85 miles 16 each 5 each 12 each 35 miles

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APPENDIX 4 (Continued)

PROPOSED RANGE IMPROVEMENT PROJECTS[1]

ALLOTMENT NAME	NUMBER	TYPE OF IMPROVEMENT	UNITS
Sand Springs	0086	Fence	63 miles
		Cattleguard	7 each
		Well	2 each
		Trough	2 each
		Earthen Reservoir	3 each
		Vegetation Manipulation	10,000 acres
Silver Peak	0097	Pipeline	1.25 miles
		Spring Development	5 each
		Trough	5 each
		Fence	21.5 miles
Smoky	0074	Fence	52 miles
		Cattleguard	2 each
		Spring Development	1 each
		Trough	1 each
		Pipeline	3 miles
Stone Cabin	0082	Fence	87 miles
		Cattleguard	19 each
		Well	2 each
		Spring Development	4 each
		Trough	11 each
		Pipeline	13 miles
		Vegetation Manipulation	14,080 acres
White Wolf	0092	Well	1 each

[1] Includes projects for livestock, wild horses/burros, wildlife, and watershed proposed in the Tonopah Grazing EIS and Esmeralda/Southern Nye RMP.

APPENDIX 5
CURRENT FORAGE ALLOCATIONS-TONOPAH (EAST)

ALLOTMENT	ALLOTMENT ACRES	CURRENT STOCKING LEVELS FOR LIVESTOCK[6]	INITIAL HERD SIZES FOR WILD HORSES AND BURROS
Blue Eagle	45,499	2,024 AUMs	0 AUMs
Butterfield	122,080	4,779 AUMs	0 AUMs
Crater-Black Rock	97,859	4,637 AUMs[1]	0 AUMs
Currant Ranch	501	282 AUMs	0 AUMs
Forest Moon	297	253 AUMs	0 AUMs
Francisco	16,896	1,206 AUMs[1]	0 AUMs
Hot Creek	154,483	6,363 AUMs[2]	492 AUMs for 41 horses[2]
Hunts Canyon	93,558	2,237 AUMs[1]	360 AUMs for 30 horses
Ione	189,099	10,476 AUMs[1]	0 AUMs
Monitor	92,463	3,862 AUMs[1]	0 AUMs
Morey	72,806	1,304 AUMs[2]	0 AUMs
Nyala	321,274	16,157 AUMs[1]	0 AUMs
Ralston	368,682	14,695 AUMs[1]	120 AUMs for 10 horses[3]
Reveille	657,520	25,730 AUMs[1]	1,980 AUMs for 145 to 165 horses[3]
San Antone	442,555	13,580 AUMs[1]	0 AUMs
Sand Springs	203,868	5,727 AUMs[1]	588 AUMs for 49 horses[4]
Smoky	125,247	5,523 AUMs[1]	0 AUMs
Stone Cabin	389,499	13,963 AUMs[1]	4,368 AUMs for 364 horses[4]

Continued on next page

APPENDIX 5 (Continued)
CURRENT FORAGE ALLOCATIONS-TONOPAH (EAST)

ALLOTMENT	ALLOTMENT ACRES	CURRENT STOCKING LEVELS FOR LIVESTOCK[6]	INITIAL HERD SIZES FOR WILD HORSES AND BURROS
Wagon Johnnie	28,157	1,219 AUMs[2]	468 AUMs for 39 horses[2]
Willow Creek	12,691	338 AUMs	54 AUMs for 6 horses for 9 months

[1] From the 12/88 Rangeland Program Summary.

[2] The AUMs shown here have been adjusted as a result of the "National Forest and Public Lands of Nevada Enhancement Act of 1988." The information shown is for the portion of the allotments remaining in BLM control. The Act transferred administration of approximately 26.9% of the lands in the Morey Allotment, 13.6% of the lands in the Hot Creek Allotment, and 72.1% of the lands in the Wagon Johnnie Allotment to the U.S. Forest Service.

[3] Directed by 1987 Court Decision (Civil R-85-535 BRT) Fallini vs. Hodel.

[4] The number of horses allowed within these HMA's was established by the consent decision issued by Administrative Law Judge, David Torbett, on May 11, 1992.

[5] Wild horses drift onto public lands from the Monitor Wild Horse Territory, which is administered by the U.S. Forest Service.

[6] The AUMs authorized for stocking levels may be adjusted through data gathered in accordance with monitoring methods described in the Nevada Rangeland Monitoring Handbook, dated September 1994.

APPENDIX 9

EXISTING CLASSIFICATIONS AND WITHDRAWALS

I. CLASSIFICATIONS

TYPE	NUMBER	ACRES
Small Tract	2	8.92
Classification and Multiple Use	4	1,984.00
Recreation and Public Purposes	19	1,534.09
Desert Land Entry	18	5,725.89
Carey Act	4	3,316.42
Airport Leases	3	126.20
	Total	12,695.52

II. WITHDRAWALS

TYPE[1]	NUMBER	ACRES
Air Force	2	619.32
BLM-Power Site Reserve	1	17.00
BLM-Protective (Railroad Valley)	1	14,710.33
BLM-Administrative	1	5.00
Department of Energy	3	2,571.29
Federal Aviation Administration	3	417.77
Forest Service Administrative	2	11.40
BLM-Protective (Natural area)	1	520.00
	Total	18,872.11

[1] Does not include nonadministrative site lands withdrawn to Forest Service

APPENDIX 10

THE RECREATION OPPORTUNITY SPECTRUM CLASS DESCRIPTIONS

OPPORTUNITY CLASS	EXPERIENCE OPPORTUNITY	SETTING OPPORTUNITY
Primitive	Opportunity for isolation from the sights and sounds of man, to feel a part of the natural environment, to have a high degree of challenge and risk, and to use outdoor skills.	Area is characterized by essentially unmodified natural environment of fairly large size (2,500 acres). Concentration of users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of man-induced restrictions and controls. Only facilities essential for resource protection are used. No facilities for comfort or convenience of the user are provided. Spacing of groups is informal and dispersed to minimize contacts between groups. Motorized use within the area is not permitted.
Semiprimitive Nonmotorized	Some opportunity for isolation from the sights and sounds of man, but not as important as for primitive opportunities. Opportunity to have high degree of interaction with the natural environment, to have moderate challenge and risk, and to use outdoor skills.	Area is characterized by a predominantly unmodified natural environment of moderate to large size (2,500 acres). Concentration of users is low, but there is often evidence of other area users. On-site controls and restrictions may be present, but are subtle. Facilities are provided for the protection of resource values and the safety of users only. Spacing of groups may be formalized to disperse use and limit contacts between groups. Motorized use is not permitted.
Semiprimitive Motorized	Some opportunity for isolation from the sights and sounds of man, but not as important as for primitive opportunities. Opportunity to have high degree of interaction with the natural environment, to have moderate challenge and risk, and to use outdoor skills. Explicit opportunity to use motorized equipment while in the area.	Area is characterized by a predominantly unmodified natural environment of moderate to large size (2,500 acres). Concentration of users is low, but there is often evidence of other area users. On-site controls and restrictions may be present, but are subtle. Facilities are provided for the protection of resource values and safety of users only. Spacing of groups may be formalized to disperse use and limit contacts between groups. Motorized use is permitted.
Roaded Natural	About equal opportunities for affiliation with other user groups and for isolation from sights and sounds of man. Opportunity to have a high degree of interaction with the natural environment. Challenge and risk opportunities are not very important except in specific challenging activities. Practice of outdoor skills may be important. Opportunities for both motorized and nonmotorized recreation are present.	Area is characterized by a generally natural environment with moderate evidence of the sights and sounds of man. Resource modification and utilization practices are evident, but harmonize with the natural environment. Concentration of users is low to moderate with facilities sometimes provided for group activity. On-site controls and restrictions offer a sense of security. Rustic facilities are provided for user convenience as well as for safety and resource protection. Conventional motorized use is provided for in construction standards and design of facilities.

Continued on next page

APPENDIX 10 (Continued)

THE RECREATION OPPORTUNITY SPECTRUM CLASS DESCRIPTIONS

OPPORTUNITY CLASS	EXPERIENCE OPPORTUNITY	SETTING OPPORTUNITY
Rural	Opportunities to experience affiliation with individuals and groups are prevalent as is the convenience of sites and opportunities. These factors are generally more important than the natural setting. Opportunities for wildland challenges, risk taking, and testing of outdoor skills are unimportant, except in those activities involving challenge and risk.	Area is characterized by substantially modified natural environment. Resource modification and utilization practices are obvious. Sights and sounds of man are readily evident, and the concentration of users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for specific activities. Developed sites, roads, and trails are designed for moderate to high use. Moderate densities are provided far away from developed sites. Facilities for intensive motorized use are available.

APPENDIX 11

CULTURAL RESOURCE MANAGEMENT GUIDELINES

Manage for Information Potential

Cultural resources included under this management objective are capable of contributing useful scientific, historic, or management information. This information potential is to be protected to the extent needed, by physical or administrative means until the potential has been realized through appropriate study. The following resource types, and/or areas, will be managed for information potential: prehistoric lithic scatters, prehistoric ceramic scatters, historic archeological sites without architectural features, sites in upland pinyon-juniper forests and sites in riparian areas.

Resources to be managed for information potential can be studied, utilized, or included in data recovery projects to mitigate adverse effects after compliance with the BLM 8100 Manual Series and section 106 of the National Historic Preservation Act.

Manage for Public Values

Cultural resources included under this objective possess identified sociocultural, educational, recreational, or other public values. Their locations are to be managed in a manner that gives adequate consideration to these values. Resources managed for public values will have those values realized through activity plans. The following resource types and/or areas will be managed for public values: rock art alignments (geoglyphs) will be managed to preserve their sociocultural values for Native Americans, historic town sites, mining or milling sites, ranching or agricultural sites, or other historic sites with architectural features will be managed for educational and recreational values. Cultural resources can be released from public value after a representative sample has been preserved.

Manage for Conservation

Cultural resources to be conserved are those with overriding scientific or historic importance. They are managed to maintain them in their present condition and to protect them from potentially conflicting land or resource uses. Resources managed for conservation will have those values realized through resource and/or area specific activity plans.

For conservation and protection of cultural resources, activity plans may provide for fencing, monitoring, purchase of claims, stabilization, establishment of parks with full time rangers, limited data recovery/collection, public education/interpretation, or other protective measures. In addition, it is important that representative samples of all classes of sites in the Tonopah Planning Area be preserved for the enjoyment and scientific benefit of future generations. Cultural resources can be released from conservation after a representative sample has been preserved.

Activity Plans

Cultural resources in the Tonopah Planning Area will be allocated to specific uses in subsequent activity plans. Activity plans containing detailed management prescriptions for selected cultural properties will be developed after use allocations have been made.

Continued on next page

APPENDIX 11 (Continued)

CULTURAL RESOURCE MANAGEMENT GUIDELINES

Cultural resource activity plans will be developed for the following areas: Trap Springs-Gravel Bar Complex, Stormy-Abel Complex, Cane Man Hill Petroglyphs, Tybo-McIntyre Charcoal Kilns, Moores Station Petroglyphs, Jumbled Rock Petroglyph, Tonopah Lake Complex, Mud Lake Complex, Big Springs Petroglyphs, Fish Lake Valley Petroglyphs, Mountain View Arrastra, Columbus Salt Marsh, Witched Well, Oriental Wash Petroglyphs, Cave Spring and The Cistern.

A rock art management plan will be developed for the Tonopah Planning Area in consultation with Native American Leaders.

Monitoring

Archaeological Resource Protection Act (ARPA) surveillance points will be established in the following areas: Silver Peak Range, Clayton Valley, Fish Lake Valley, Hot Creek Range, Railroad Valley, all valleys with late Pleistocene lake features.

ARPA law enforcement and monitoring plans will be written for the following areas: Rhyolite, Trap Springs, Gravel Bar, and Stormy-Abel prehistoric districts, Fish Lake Valley Petroglyphs, Cave Spring, Cane Man Hill, Big Springs Petroglyphs and Fish Lake Valley Salt Marsh.

APPENDIX 16

LIVESTOCK GRAZING (RANGELAND MANAGEMENT)
TONOPAH RESOURCE AREA MANAGEMENT FRAMEWORK PLAN

OBJECTIVES FOR LIVESTOCK FORAGE

To maintain and improve, where necessary, the condition of the rangeland vegetation resource.

To increase the amount of forage available for livestock.

To minimize short-term disruptions and ensure the long-term stability of the livestock industry.

GENERAL INFORMATION

There are 16 livestock permittees licensed to graze cattle on 19 allotments within the Tonopah Resource Area. Livestock have harvested an average of 73,385 AUMs (the amount of forage necessary to sustain one cow, one horse, or five sheep for one month) of forage annually over the past five years. The forage available for livestock consumption comes from 15 broad vegetation types within the resource area. The vegetation within the types varies from scattered salt tolerant shrubs and grasses, through many varieties of desert shrubs, grasses, and forbs, to scattered stands of pinyon pine, juniper, and mountain mahogany on the intermediate and high mountains.

DECISIONS

1. Manage livestock grazing to assure that the physiological needs of the key plant species are met. Changes in management will be made if utilization and trend studies indicate that the degree of use exceeds the biological tolerance of key species.

2. Establish critical habitat for plants that are threatened or endangered.

3. Provide additional forage through artificial land treatment when intensive range management and new water developments do not meet vegetation demand. The following allotments will be considered.

Estimated Potential Through Artificial Treatment

Allotment	Treatment	Acres	Production Additional AUMs
Francisco	Spray or Burn and Seed	1,400	257
Hunts Canyon	Spray or Burn and Seed Spray or Burn	3,700 960	854
Ione	Spray or Burn	2,400	440
Monitor	Spray or Burn and Seed	5,025	921
Sand Springs	Spray or Burn and Seed	10,000	1,833
Stone Cabin	Spray or Burn and Seed Spray and Seed	6,400 7,680	2,581

4. Livestock and rangeland may be intensively managed on all allotments. Allotment management plans will be implemented in the following priority dependent upon manpower and available funding.

AMP ALLOTMENTS	PRIORITY
Wagon Johnnie	N/A
Willow Creek	N/A
Stone Cabin	1
Reveille	2
Morey	3
Hot Creek	4
Crater Black Rock	5
Sand Springs	6
Nyala	7
Hunts Canyon	8
Ione	9
San Antone	10
Smoky	11
Monitor	12
Ralston	13
Francisco	14
Butterfield	15
Blue Eagle	16

Allotment management plans for the Forest Moon and Currant Ranch allotments will be developed by the Ely District Office.

5. Implementation of livestock grazing use will be through the Individual Stewardship Program. The concept of Coordinated Resource Management and Planning (CRMP) will be utilized to involve interested persons and groups in the resource considerations in the grazing allotments. Adjustments in livestock grazing will be based on vegetative stud and in consultation with all affected interests, utilizing the CRMP process.

6. Grazing will be managed with the following land uses to be considered in the development of allotment management plans:

Blue Eagle: Oil and gas development, riparian/wetland management (Blue Eagle Pond Area), and bighorn sheep habitat management.

Additional vegetation produced in the future within bighorn sheep and antelope habitat areas will be reserved for them to the extent necessary to support reasonable numbers for these animals.

Butterfield: Oil and gas production, riparian/wetland habitat management (Big Well and Lockes Pond), and bighorn sheep habitat management (lambing), deer winter range, and deer summer range management.

Additional vegetation produced in the future within mule deer habitat areas will be reserved for them to the extent necessary to support reasonable numbers for these animals.

Crater Black Rock: Oil and gas development, recreation management (volcanic field), antelope habitat management, and riparian/wetland management (120 acres at Chimney Spring).

Currant Ranch, Forest Moon: Bighorn Sheep habitat management and deer winter range management.

Implementation of livestock grazing use will be dependent upon the grazing management levels that the Ely District Office recommends.

Francisco: Community Expansion.

Hot Creek: Oil and gas development, mule deer winter habitat management (South Six Mile Canyon), bighorn sheep re-introduction, primitive recreation, mule deer summer range, cultural resources, and woodland products.

Additional vegetation produced in the future within deer areas will be reserved for them to the extent necessary to support reasonable numbers for these animals.

Additional vegetation resulting from habitat manipulation for deer will be reserved for them to the extent necessary to support reasonable numbers for these animals.

Additional vegetation resulting from livestock management by permittee's own initiative (Individual Stewardship Program) will be reserved for livestock as first consideration provided no adverse impacts to mule deer habitat is assured.

Hunts Canyon: Wild horse management and cultural resource management.

Additional vegetation produced in the future within antelope ranges will be reserved for them to the extent necessary to support reasonable numbers for these animals.

Ione: Antelope habitat management (re-introduction).

Monitor: Riparian/wetland habitat management (Corcoran Creek, Mosquito Creek, Pine Creek), antelope management, sage grouse habitat management, and wild horse management.

Additional vegetation produced in the future within deer habitat areas will be reserved for them to the extent necessary to support reasonable numbers for these animals.

Allocate additional vegetation outside of deer use areas resulting from improved livestock management on a proportionate share of grazing preference.

Allocate additional vegetation provided by land treatment (estimated potential of 1,600 AUMs) to livestock by a proportionate share of preference if government funds are used. Vegetation provided by treatment where permittee(s) provide for costs will be allocated on a cost/share basis.

Morey: Deer winter range management, deer summer range management, bighorn sheep habitat management (re-introduction), riparian habitat management (North Six Mile Canyon), woodland products and cultural resource management.

Additional vegetation provided for mule deer by habitat manipulation will be allocated entirely for deer. Allocation of additional vegetation by habitat manipulation for livestock will be allocated to deer to the extent necessary to support reasonable numbers for these animals.

Additional vegetation resulting from livestock management by the permittee's own initiative (Individual Stewardship Program) will be allocated to livestock as first consideration, provided no adverse impacts to mule deer habitat is assured.

Nyala: Oil and gas development, wild horse management, riparian habitat management (Little Meadow Creek and Troy Creek), bighorn sheep winter range management, antelope

habitat management, deer winter range management.

Ralston: Community expansion (Tonopah and Tonopah airport), antelope habitat management, recreation management (Mud Lake), deer winter range management, and wild horse management.

Reveille: Oil and gas development, wild horse management, geothermal development, deer summer range management (Kawich Range), riparian habitat management (Eden Creek), antelope habitat management (Railroad Valley), deer winter range management (Reveille and Pancake ranges), woodland products.

Additional vegetation resulting from range improvement within deer ranges will be allocated to deer as first consideration to the extent necessary to support reasonable numbers for these animals.

Additional vegetation resulting from livestock management by the permittee's own initiative (Individual Stewardship Program) will be allocated to livestock as first consideration, provided no adverse impacts to mule deer or wild horse habitat is assured.

San Antone: Deer winter range management, antelope habitat management (re-introduction), recreation (Crescent Sand Dunes), and community expansion.

Additional vegetation produced in the future within deer habitat areas will be reserved for them to the extent necessary to support reasonable numbers for these animals.

Sand Springs: Oil and gas development, recreation (Black Rock Lava Flow), wild horse management, antelope habitat management, and deer habitat management.

Additional vegetation that becomes available through livestock management will be allowed on a proportionate share of preference unless it is demonstrated that one or more permittee(s) are directly responsible for such vegetation improvements due to costs or management. All additional forage in the latter case will be allocated to the permittee(s) responsible for the improvement. All permittees will be consulted.

Vegetation which is made available from regular non-use may be used by another permittee within the allotment on a temporary, non-renewable basis. This applies only when the non-use is not in the interest of conservation of the range.

Smoky: Community expansion (Carver's Station and Round Mountain), geothermal development, deer winter range management, riparian habitat management (Barker, Jefferson, and Moore's Creek).

Additional vegetation produced in the future within deer habitat areas will be reserved for them to the extent necessary to support reasonable numbers for these animals.

Stone Cabin: Oil and gas development, wild horse management, antelope habitat management, deer summer and winter range management, and woodland products.

Additional vegetation produced in the future within deer habitat areas will be reserved for them to the extent necessary to support reasonable numbers for these animals.

Wagon Johnnie: Wild horse management, antelope habitat management, riparian/fisheries management (Danville and Clear Creeks), cultural resource management (James Wild Horse Trap), sage grouse habitat management, and elk habitat management.

Willow Creek: Wild horse management, antelope habitat management, deer winter range management, and sage grouse habitat management. Management will be closely coordinated with the Toiyabe National Forest.

Additional vegetation provided by improved management will be allocated to livestock.

7. Livestock grazing will be excluded from the areas listed below to achieve wildlife habitat management objectives. Livestock use may be allowed in a prescribed manner by a temporary, nonrenewable grazing license to achieve specific wildlife management objectives identified by the habitat management plans for each area.

Allotment	Area	Acres	Habitat Management Objectives
Blue Eagle	Blue Eagle Pond	49	Wetland/Riparian
Butterfield	Big Well/Lockes Pond	402	Wetland/Riparian
Crater Black Rock	Chimney Spring	120	Wetland/Riparian
Morey	Morey Bench	2,500	Mule Deer Habitat
Morey	North Six-Mile	2,765	Riparian/Mule Deer
Hot Creek[1]	South Six-Mile	11,056	Riparian/Mule Deer
Smoky	East Toiyabe	8,127	Mule Deer

[1] Acreage shown for Hot Creek Allotment has been reduced because of forest enhancement.

APPENDIX 17

RECORD OF DECISION FOR THE FINAL TONOPAH GRAZING ENVIRONMENTAL IMPACT STATEMENT

INTRODUCTION

The Final Tonopah Grazing Environmental Impact Statement was published in September of 1980. The proposed action, described in the environmental impact statement, has been accepted as the decision subject to certain modifications. The modifications are the result of public comment, the initiation of the Tonopah Individual Stewardship Program, the advent of the coordinated resource management and planning concept in Nevada, a reassessment of the range inventory data, and management decisions to keep some wild horses in all current use areas and expand the area protected for riparian wildlife habitat values. The following sections identify specific changes from the proposed action of the environmental impact statement.

Periods-of-use

The period-of-use changes will not be initiated at this time. The establishment of periods-of-use was intended to provide for the physiological needs of the key forage plant species. These needs can usually be met through grazing systems which include periodic rest from grazing. Period-of-use changes may be necessary in the future if utilization and trend studies indicate that grazing use exceeds the biological tolerance of key plant species.

Livestock Management

In the proposed action of the grazing statement, intensive livestock management was not slated for all of the grazing allotments based on economic factors. Through the experimental stewardship program each livestock permittee may now develop a plan which will address the intensity of management.

Livestock Reductions

The proposed action of the environmental impact statement included certain livestock grazing reductions. No required livestock reductions will be implemented at this time in order to provide an opportunity for the Individual Stewardship Program incentives as intended by Section 12 of the Public Rangelands Improvement Act of 1978 (P.L. 95-514) and the coordinated resource management and planning process to produce improvements in the rangeland.

Livestock Support Facilities

The land treatments discussed in the proposed action of the environmental impact statement will not be implemented unless intensive range management and water developments do not meet the vegetation demand.

THE LIVESTOCK FORAGE, WILD HORSE, AND WILDLIFE HABITAT MANAGEMENT PROGRAM DECISIONS

For a complete summary of the decisions for the above listed programs, please refer to the subsections having the same title under the previous heading "Livestock Grazing (Rangeland Management), Tonopah Management Framework Plan Decisions."

IMPLEMENTATION OF THE DECISIONS THROUGH THE INDIVIDUAL STEWARDSHIP PROGRAM AND THE COORDINATED RESOURCE MANAGEMENT AND PLANNING CONCEPT

The BLM has three levels of planning. The management framework plan (MFP) is a general plan which describes how the land and its resources will be used. It also contains resource condition and protection objectives and specifies levels of resource use. Activity plans such as livestock grazing plans, wildlife habitat management plans, and wild horse herd area management plans prescribe specific courses of action for achieving the objectives of the MFP. Project plans provide design and contract specifications for individual projects such as spring developments and fences. Activity plans and project plans are developed to implement the decisions of the MFP.

This section of the record of decision describes the process through which the decisions of the MFP will be implemented. The two basic elements of the process are coordinated resource management and planning (CRMP) and the Individual Stewardship Program.

The Individual Stewardship Program, authorized by the Public Rangelands Improvement Act of 1978, is a trial procedure for implementing grazing management plans. It will be applied in the Tonopah Resource Area to allow livestock operators to develop innovative grazing management techniques. Individual operators electing to participate will become involved in a program which establishes a mechanism for providing incentives and rewards to livestock operators whose stewardship results in improved management of public rangelands. Participants will develop a livestock grazing management plan for their allotments under the stewardship concept. Each management plan must include actions designed to achieve the objectives of the Tonopah MFP. These plans will be coordinated through the CRMP process to inform and/or provide additional involvement that is needed to meet land use plan objectives.

The livestock forage, wildlife habitat, and wild horse program decisions include many actions designed to avoid or minimize environmental harm. The actual implementation of the decisions may take place through the Individual Stewardship Program and/or the coordinated resource management and planning concept. As it is expected that additional measures to avoid or minimize environmental harm will be identified through these two processes in the future, not all such actions are directly identified in the decisions.

Through the CRMP concept, livestock operators, interested members of the public, organization representatives and officers of state and federal resource management agencies will be given an opportunity to work together in the formulation of various activity plans for the management of wildlife, wild horses, and livestock. These activity plans will be completed within the framework of the Tonopah MFP and the laws and regulations which govern the conduct of the BLM.

The goal of CRMP is to bring together all parties interested in resource management for a particular land area to strengthen and improve the management of public land, enhance the quality and productivity of resources in local planning areas, and diminish, if not resolve, conflicts among users. This is to be accomplished through a localized CRMP group consisting of private land owners, federal and state land managers, resource users and interest groups.

Additional information pertaining to the CRMP process is contained in the Nevada Coordinated Resource Management and Planning Handbook prepared by the Nevada Coordinated Resource Management and Planning Task Group. The task group consists of staff members of the Nevada Department of Agriculture, State Conservation Commission, Department of Conservation and Natural Resources, Department of Wildlife; The University of Nevada at Reno, College of Agriculture; the U.S. Forest Service, Soil Conservation Service, Bureau of Land Management, Agriculture Stabilization and Conservation Service, and Fish and Wildlife Service. It operates under the Memorandum of Understanding for Coordinated Resource Management and Planning in Nevada signed by the heads of the Nevada state agencies and state or regional heads of the federal agencies listed previously.

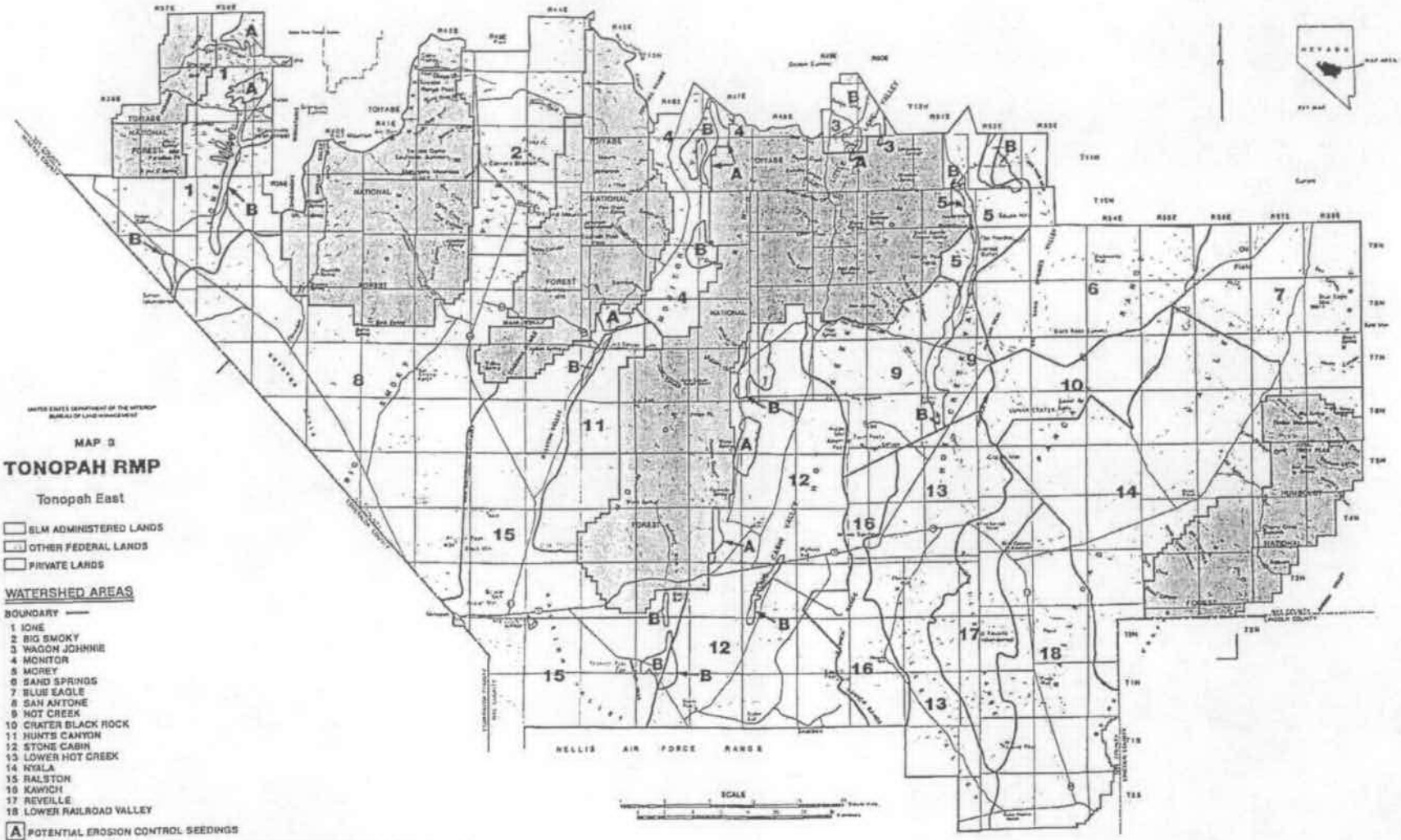
The process through which specific activity plans will be developed will begin in 1981. The details of the process are subject to change depending upon the recommendations of the local CRMP group. Additional information about the process will be sent to interested parties as it becomes available.

APPROPRIATIONS

The development of the grazing management program for the Tonopah Resource Area will be dependent upon the provision of adequate appropriations and manpower for implementation.

MONITORING

A monitoring program will determine the effectiveness of the rangeland management program. Existing vegetation, wildlife, and wild horse studies will be continued and additional studies will be established during 1981. These studies will measure changes in plant composition, vigor, ground cover, and animal populations to determine progress toward specific land management objectives. The information obtained from the monitoring program will be used to evaluate the effects of the rangeland management program on a resource area wide basis.



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAP 3

TONOPAH RMP

Tonopah East

- SLM ADMINISTERED LANDS
- OTHER FEDERAL LANDS
- PRIVATE LANDS

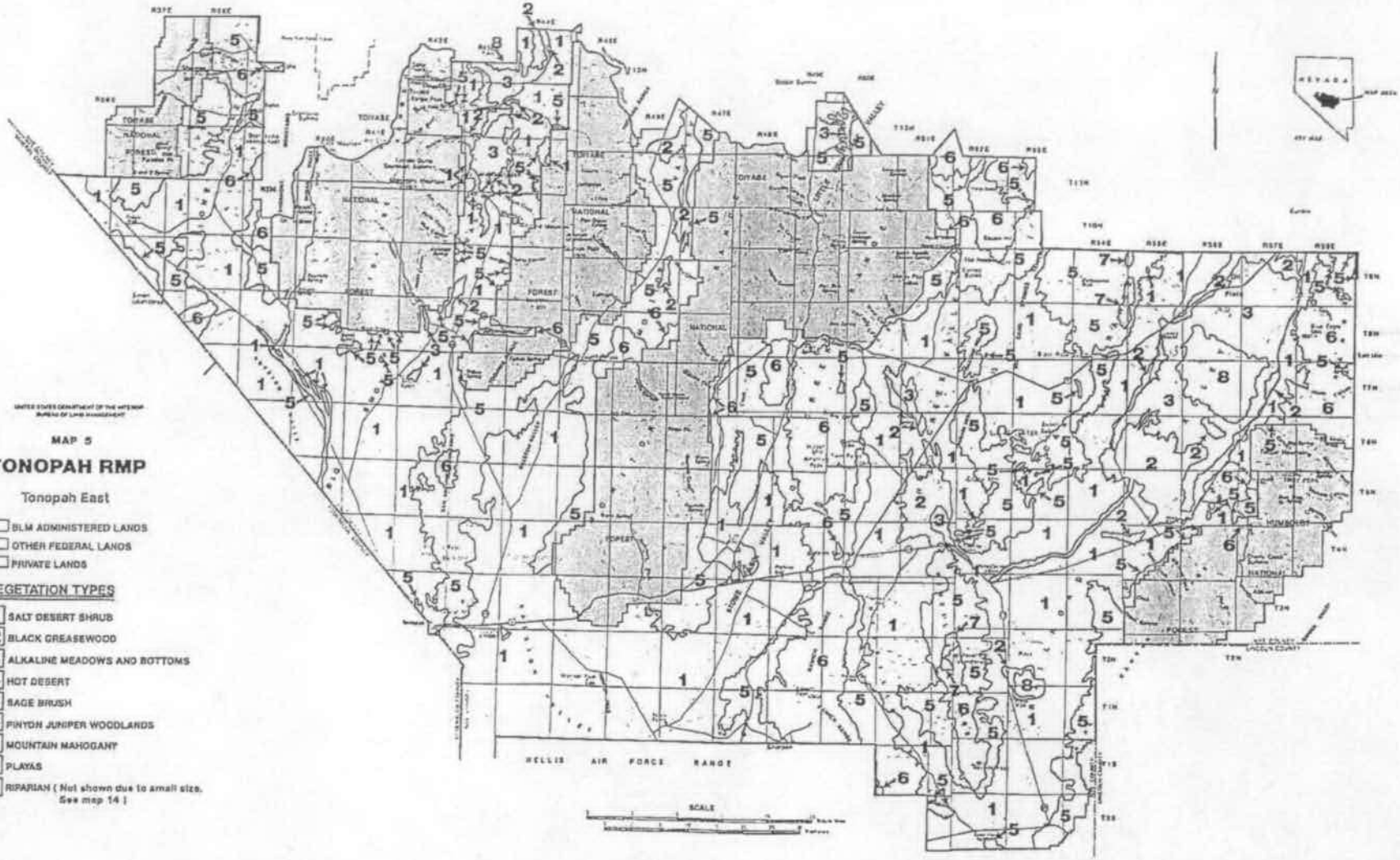
WATERSHED AREAS

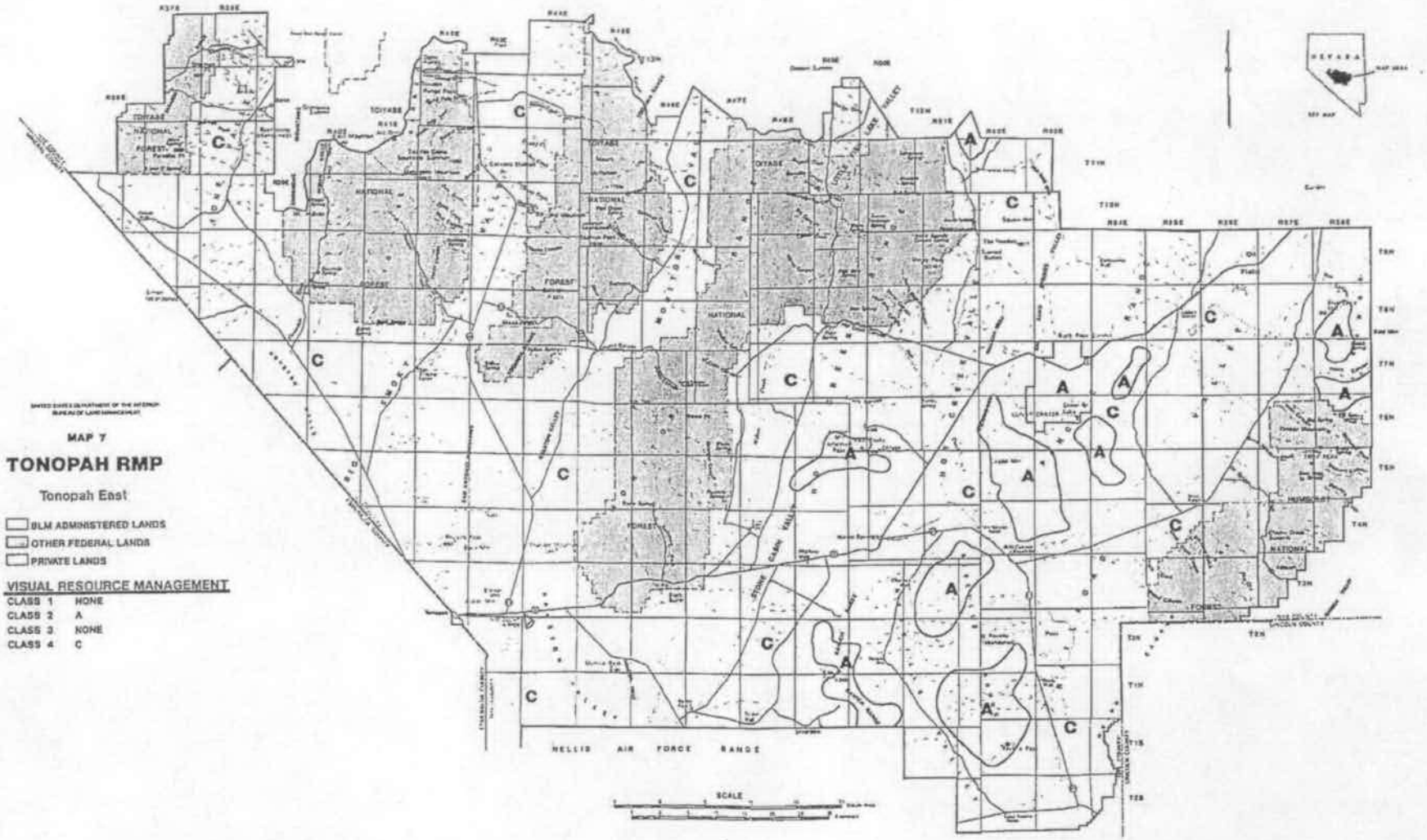
BOUNDARY

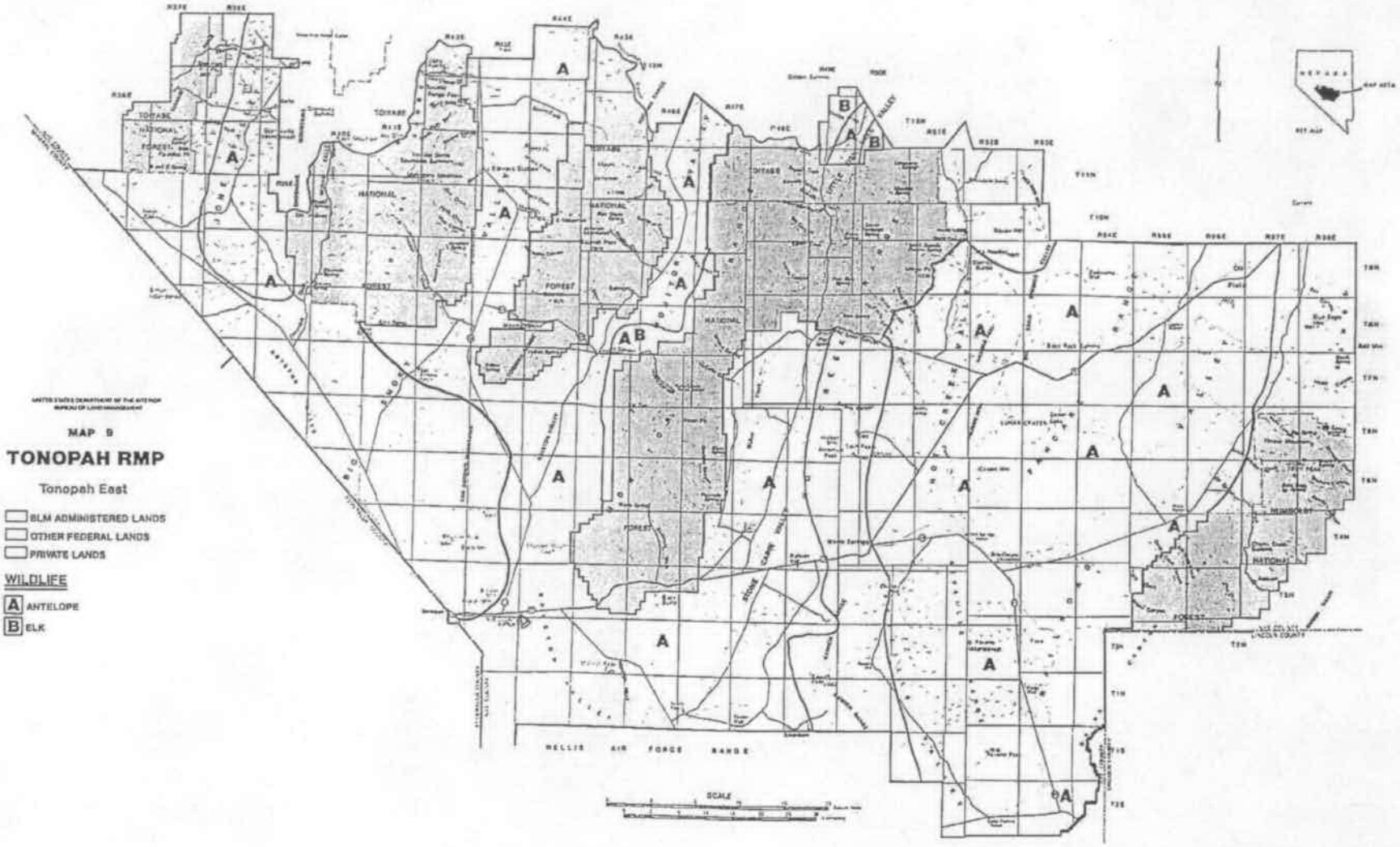
1 IONE
2 BIG SMOKY
3 WAGON JOHNNIE
4 MONITOR
5 MOREY
6 SAND SPRINGS
7 BLUE EAGLE
8 SAN ANTONE
9 HOT CREEK
10 CRATER BLACK ROCK
11 HUNTS CANYON
12 STONE CABIN
13 LOWER HOT CREEK
14 NYALA
15 RALSTON
16 KAWICH
17 REVEILLE
18 LOWER RAILROAD VALLEY

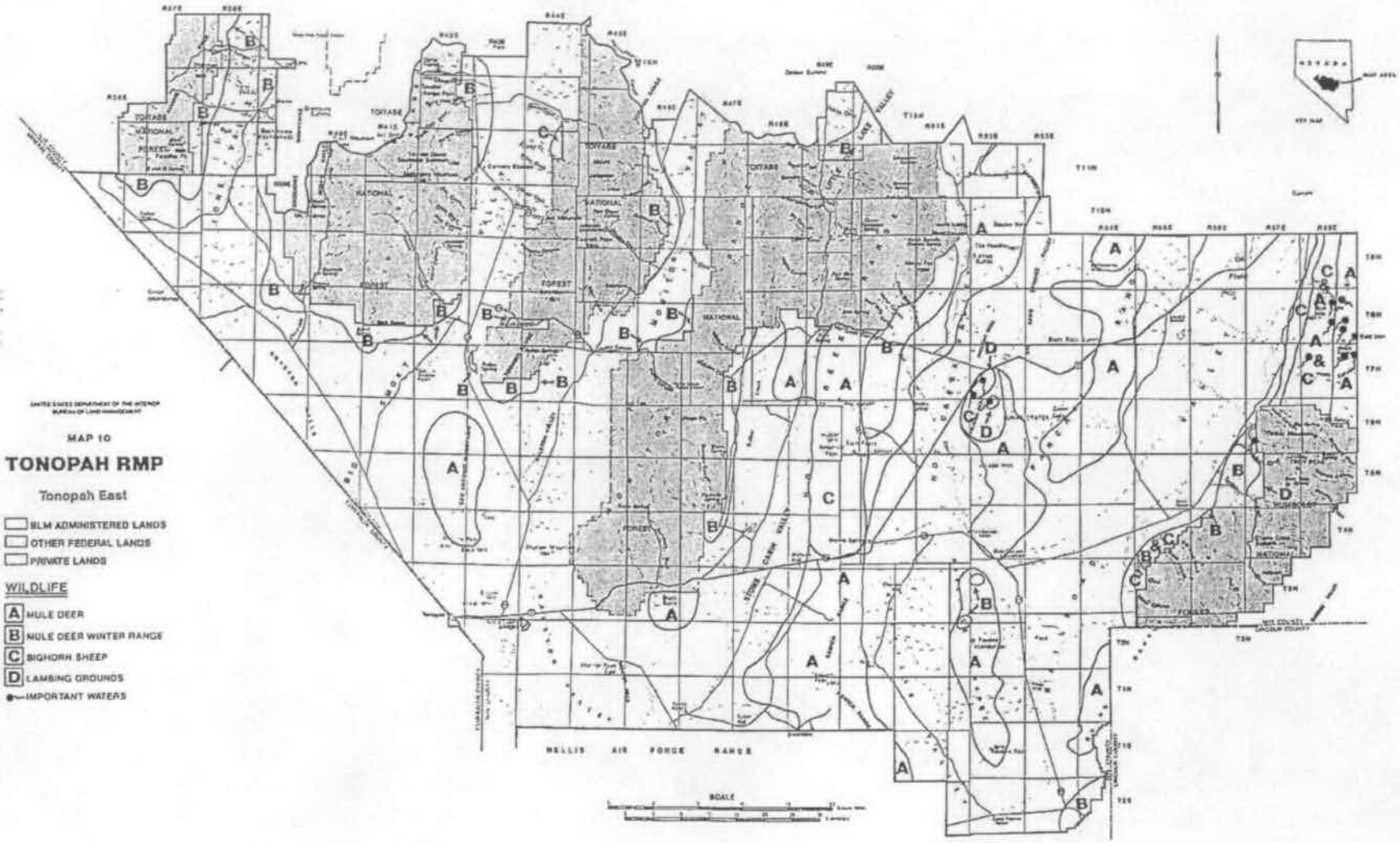
A POTENTIAL EROSION CONTROL SEEDINGS

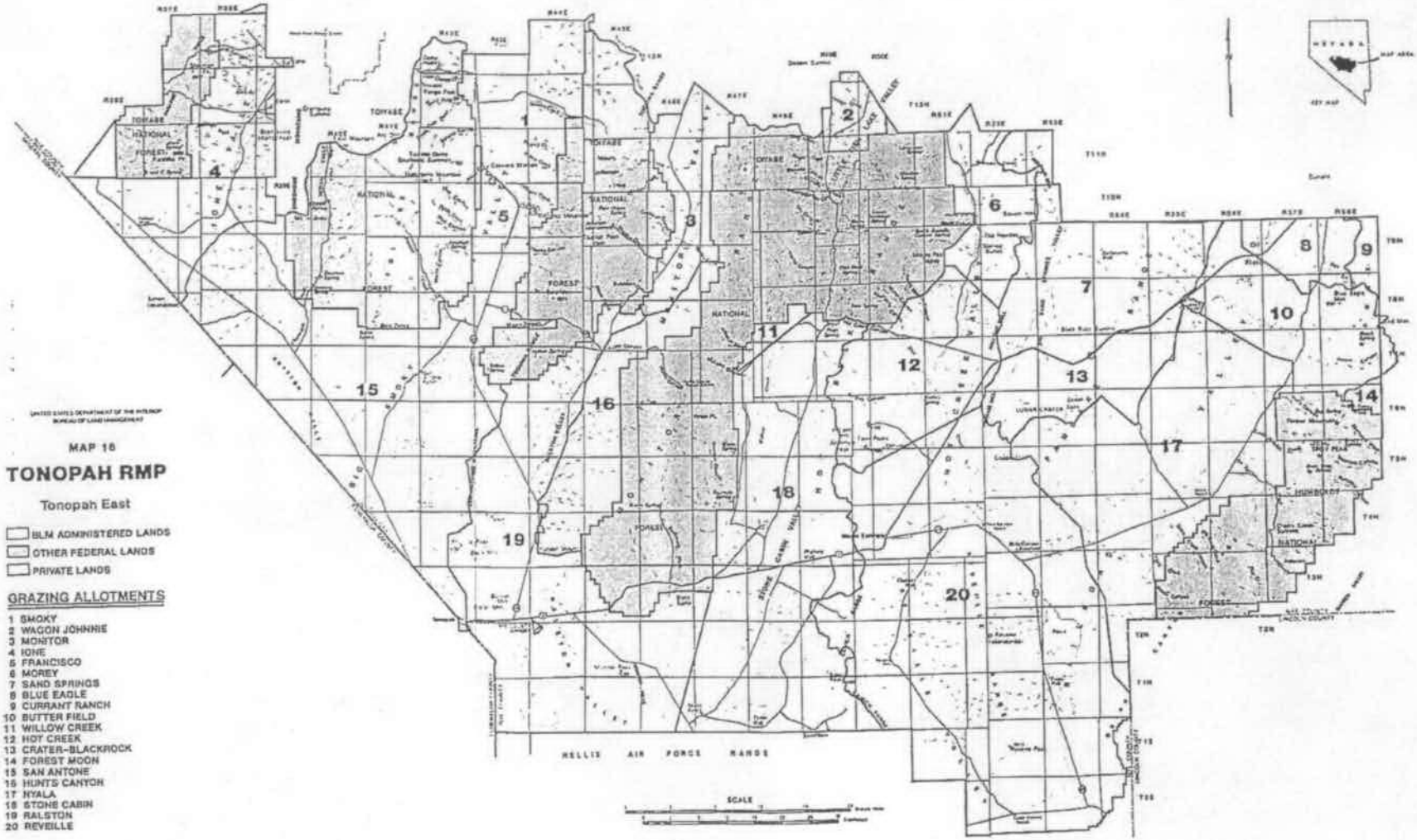
B POTENTIAL EROSION CONTROL SEEDINGS AND STREAM BANK CHANNEL STABILIZATION

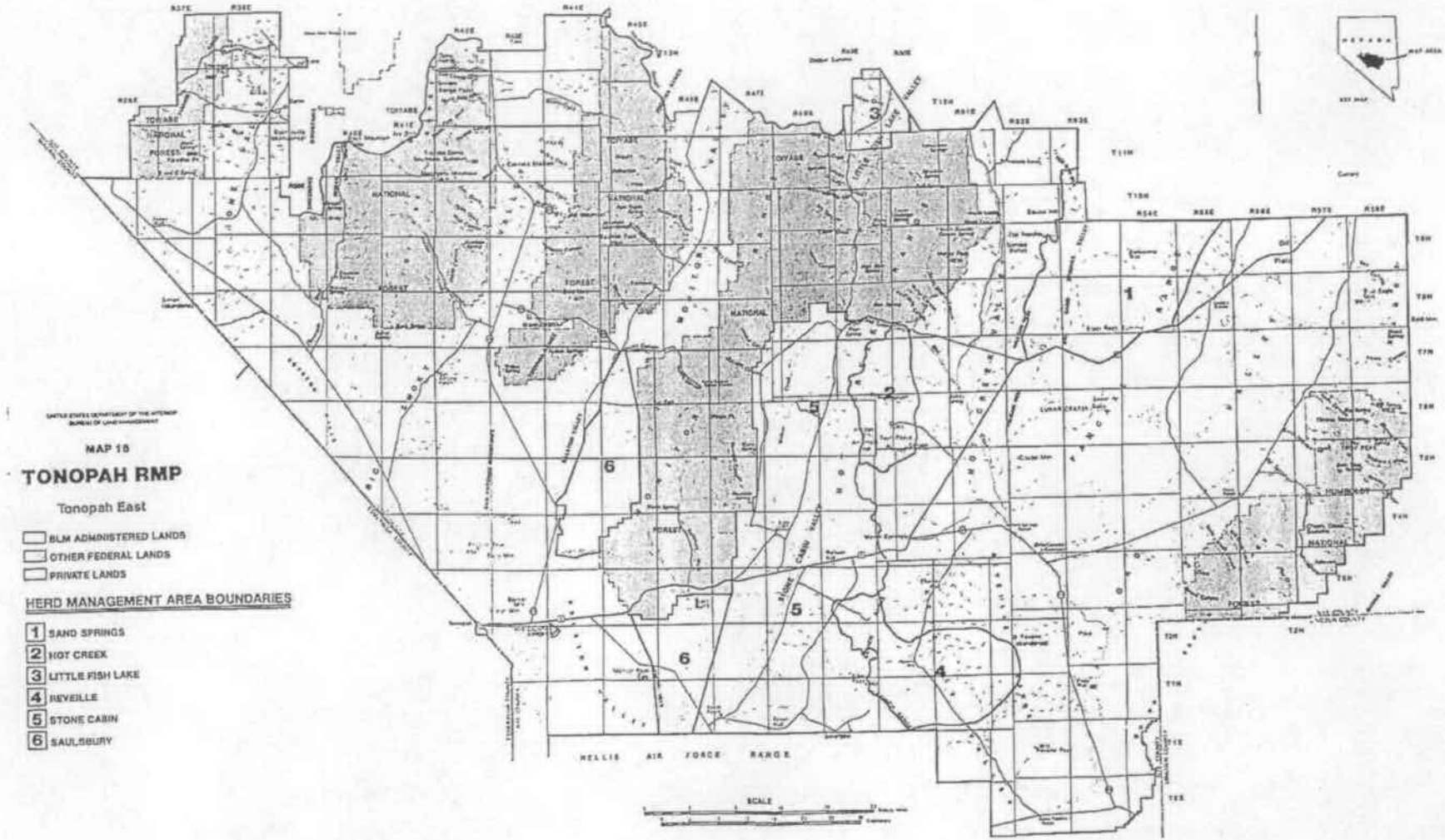

MAP 5
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
VEGETATION TYPES
1 SALT DESERT SHRUB
2 BLACK GREASEWOOD
3 ALKALINE MEADOWS AND BOTTOMS
4 HOT DESERT
5 SAGE BRUSH
6 PINYON JUNIPER WOODLANDS
7 MOUNTAIN MAHOGANY
8 PLAYAS
9 RIPARIAN (Not shown due to small size. See map 14)
NELLIS AIR FORCE RANGE
SCALE
NEVADA

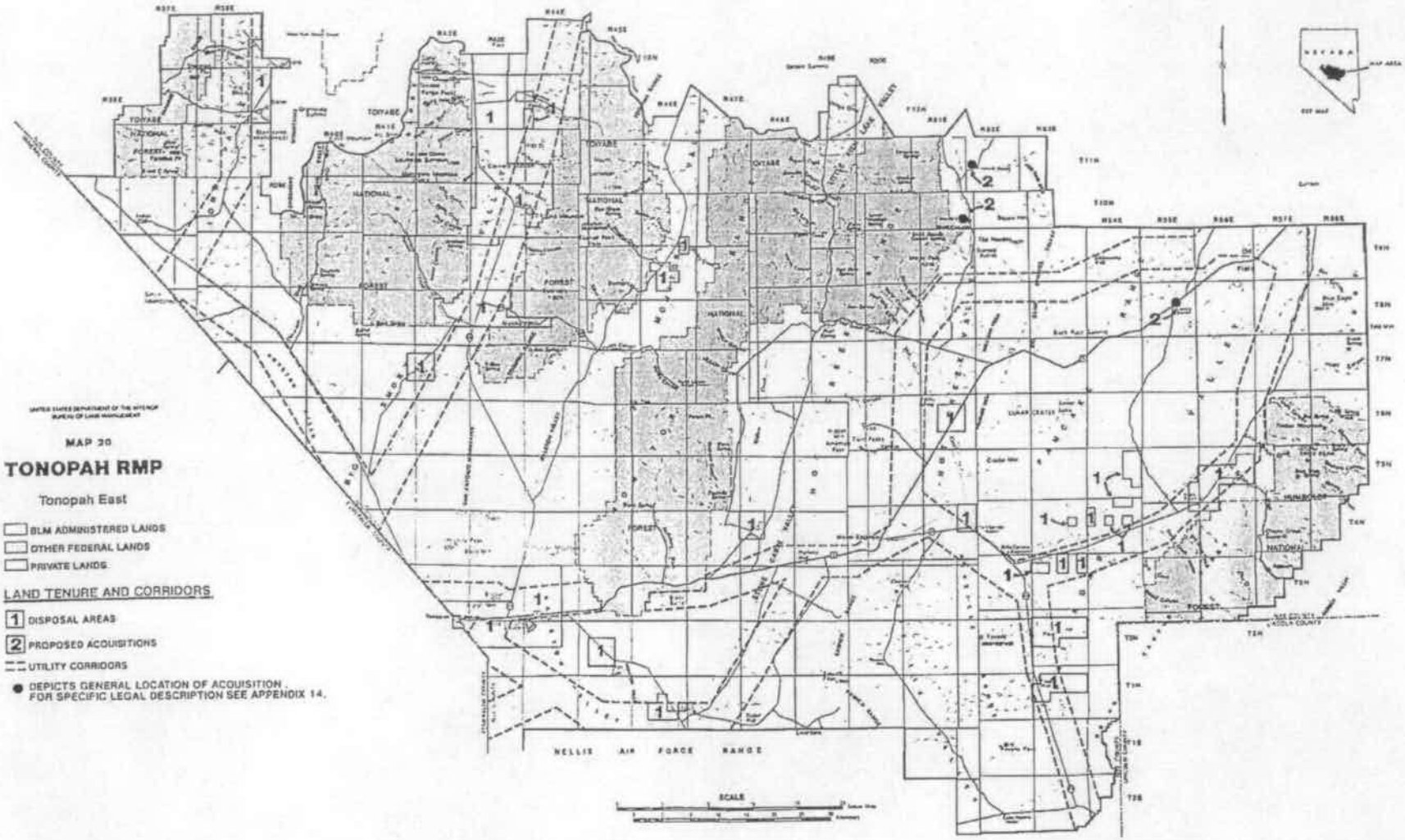

MAP 7
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
VISUAL RESOURCE MANAGEMENT
CLASS 1 NONE
CLASS 2 A
CLASS 3 NONE
CLASS 4 C
NELLIS AIR FORCE RANGE
SCALE

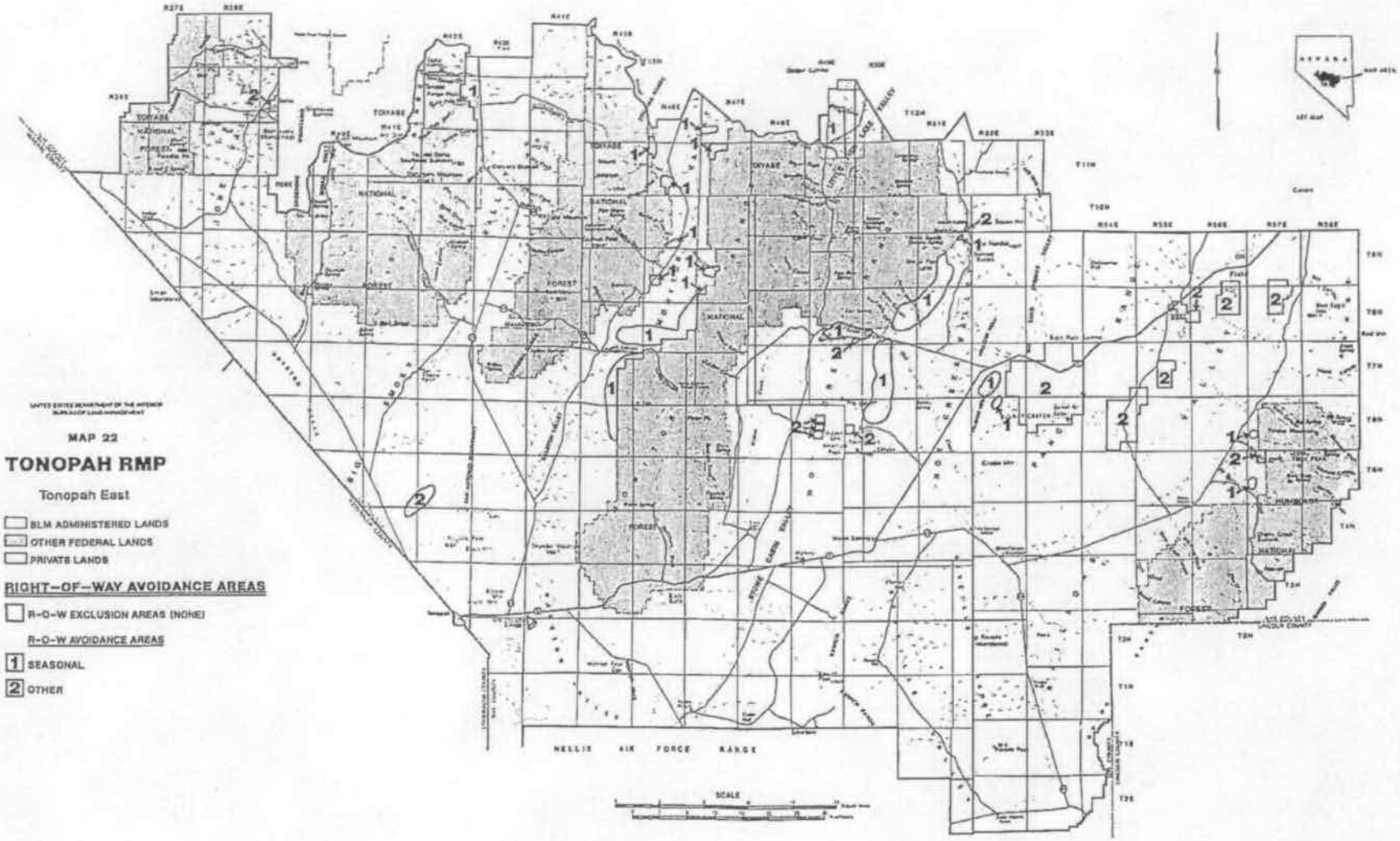

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MAP 9
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
WILDLIFE
A ANTELOPE
B ELK
NELLIS AIR FORCE RANGE
SCALE

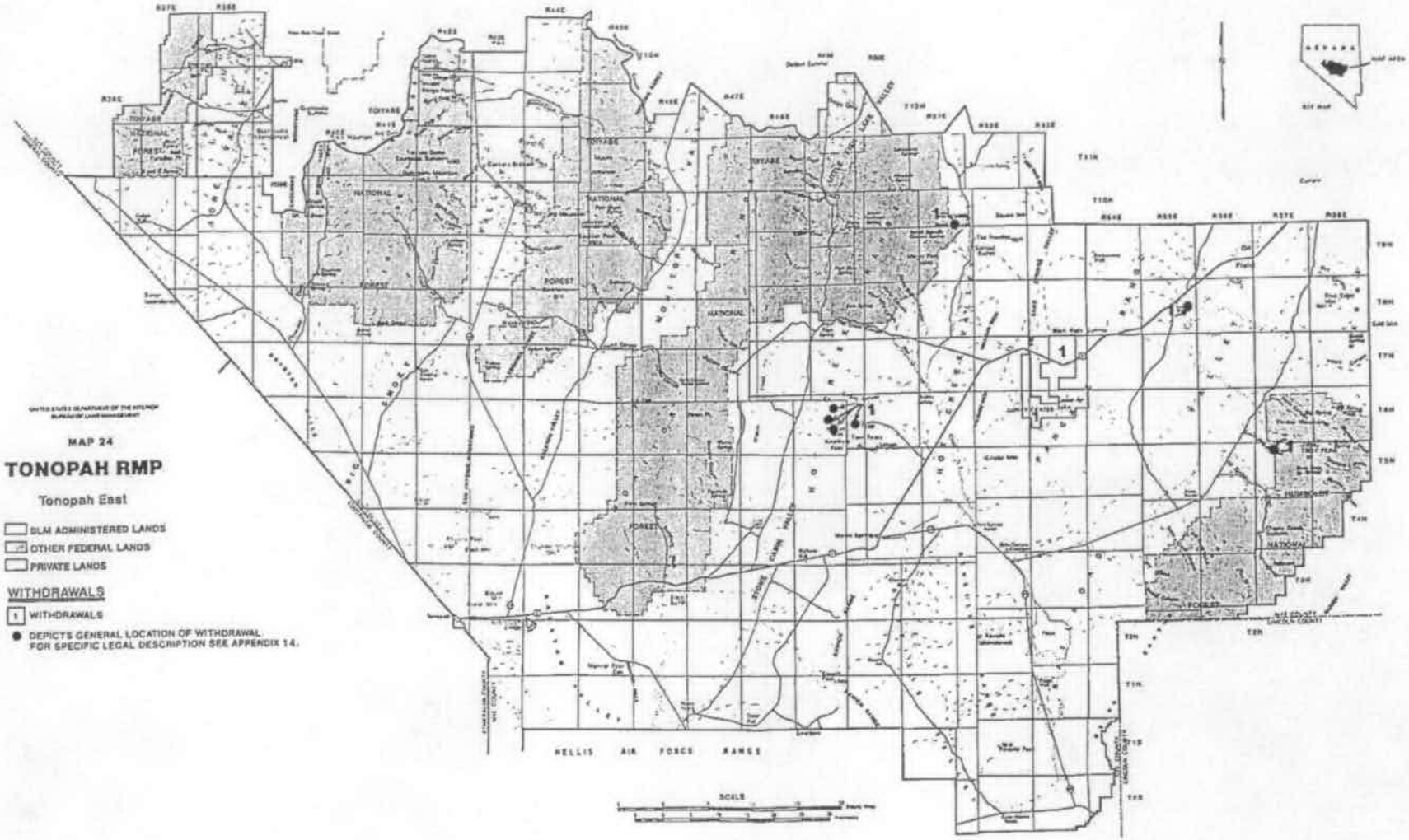

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MAP 10
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
WILDLIFE
A MULE DEER
B MULE DEER WINTER RANGE
C BIGHORN SHEEP
D LAMBING GROUNDS
IMPORTANT WATERS
NELLIS AIR FORCE RANGE
SCALE

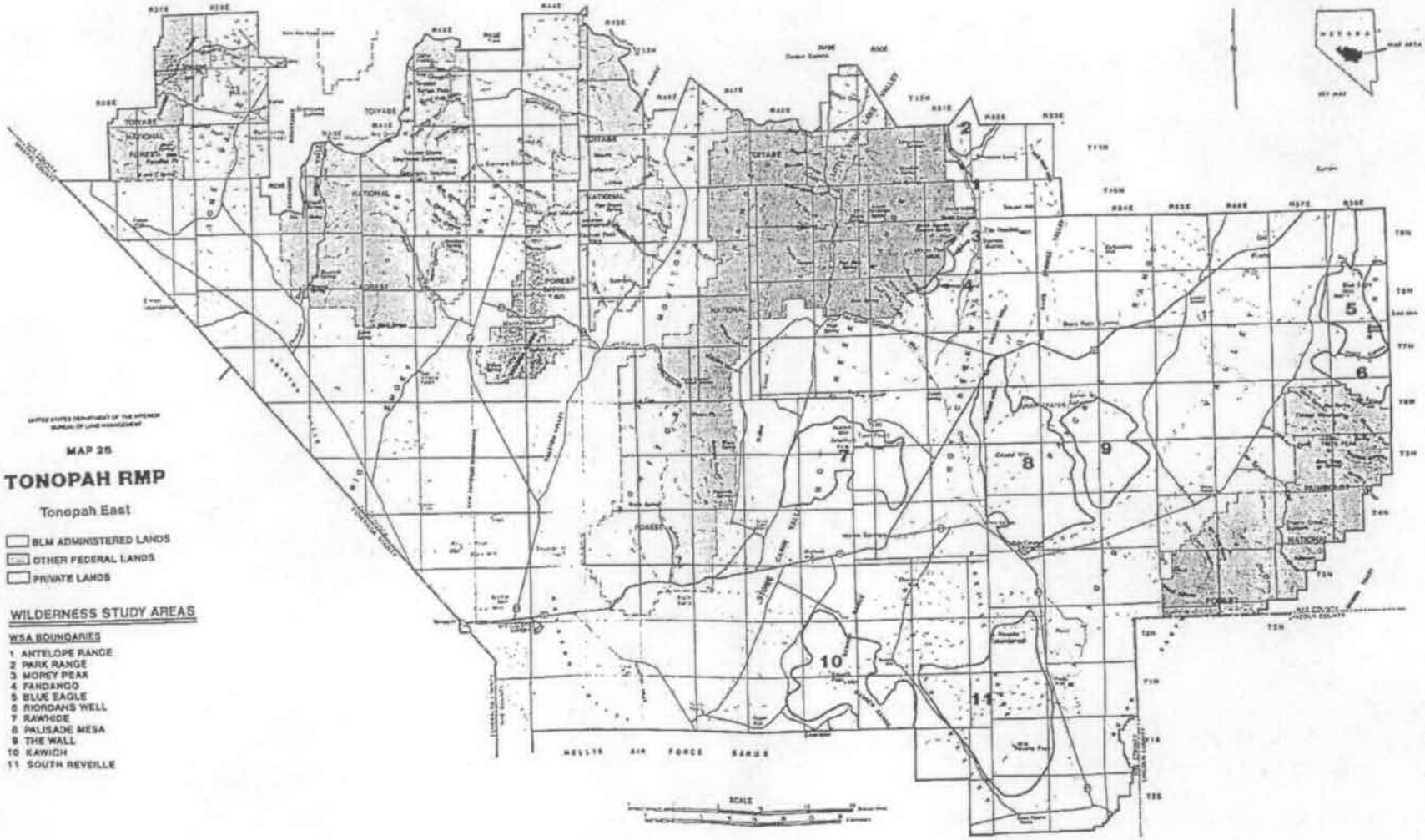

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MAP 16
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
GRAZING ALLOTMENTS
1 SMOKY
2 WAGON JOHNNIE
3 MONITOR
4 IONE
5 FRANCISCO
6 MOREY
7 SAND SPRINGS
8 BLUE EAGLE
9 CURRANT RANCH
10 BUTTER FIELD
11 WILLOW CREEK
12 HOT CREEK
13 CRATER-BLACKROCK
14 FOREST MOON
15 SAN ANTONE
16 HUNTS CANYON
17 HYALA
18 STONE CABIN
19 RALSTON
20 REVEILLE
NELLIS AIR FORCE RANGE
SCALE
NEVADA

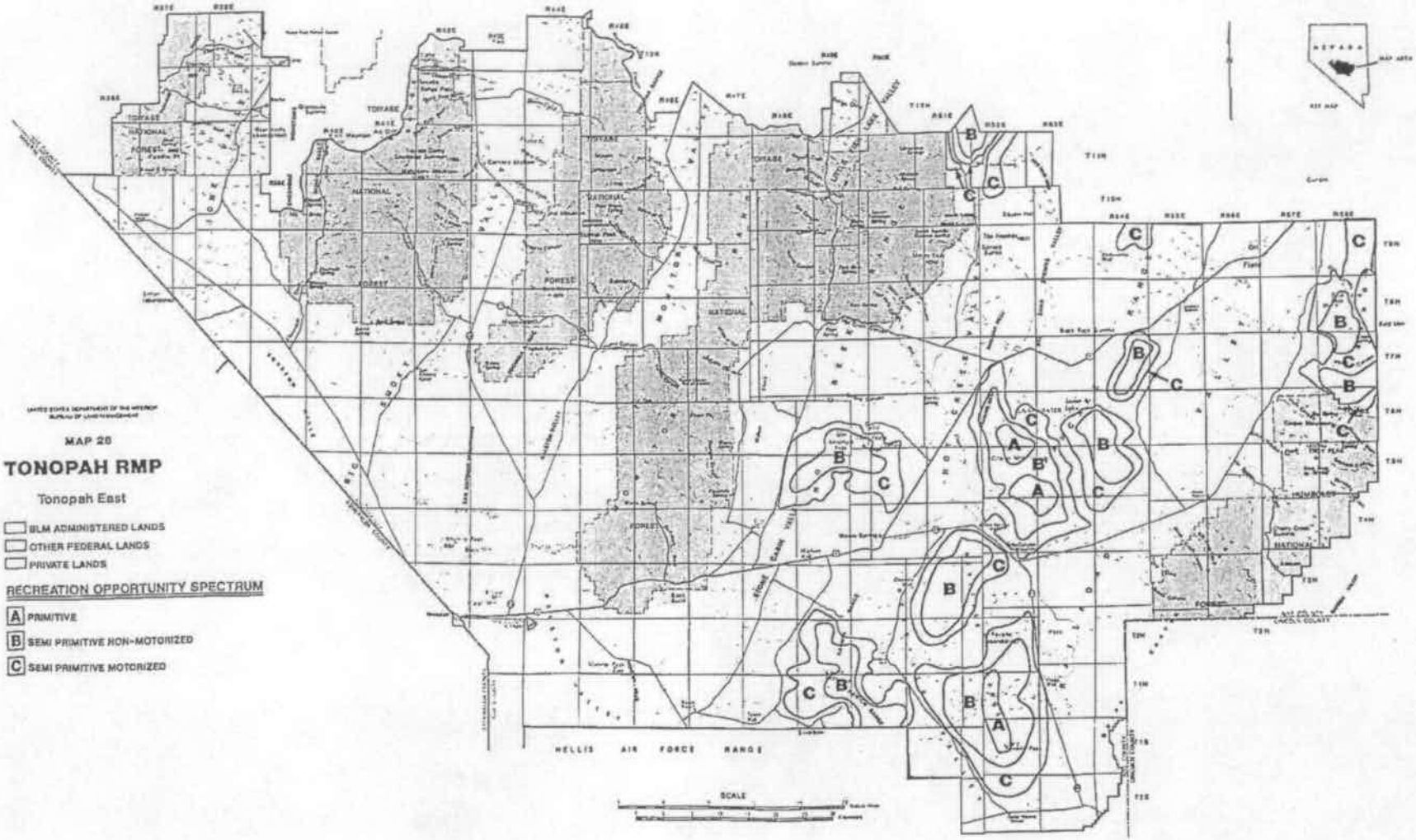

MAP 15
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
HERD MANAGEMENT AREA BOUNDARIES
1 SAND SPRINGS
2 HOT CREEK
3 LITTLE FISH LAKE
4 REVEILLE
5 STONE CABIN
6 SAULSBURY
NELLIS AIR FORCE RANGE
SCALE

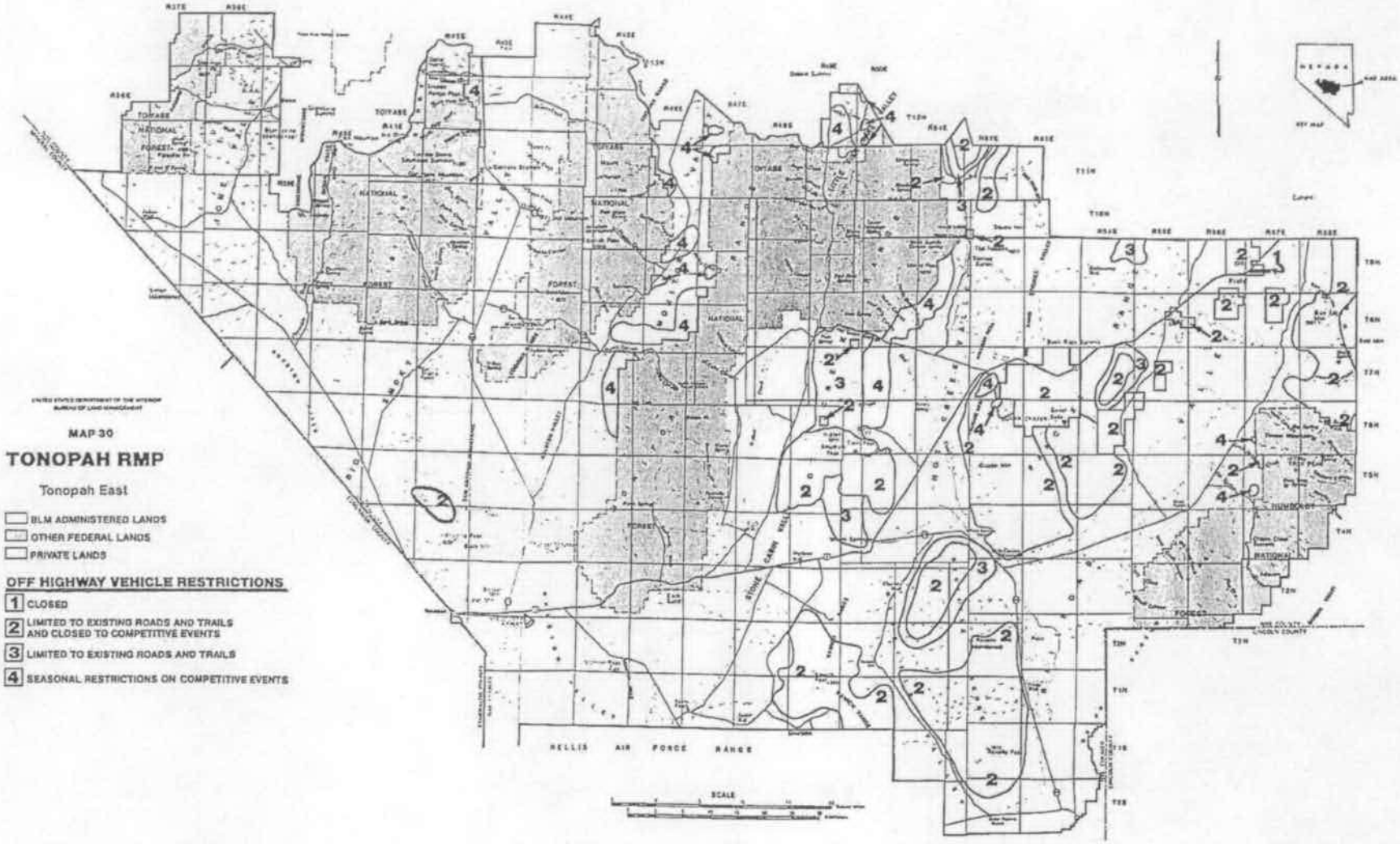

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MAP 20
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
LAND TENURE AND CORRIDORS
1 DISPOSAL AREAS
2 PROPOSED ACQUISITIONS
UTILITY CORRIDORS
DEPICTS GENERAL LOCATION OF ACQUISITION. FOR SPECIFIC LEGAL DESCRIPTION SEE APPENDIX 14.
NELLIS AIR FORCE RANGE
SCALE
NEVADA
MAP AREA


UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MAP 22
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
RIGHT-OF-WAY AVOIDANCE AREAS
R-O-W EXCLUSION AREAS (NONE)
R-O-W AVOIDANCE AREAS
1 SEASONAL
2 OTHER
NELLIS AIR FORCE RANGE
SCALE

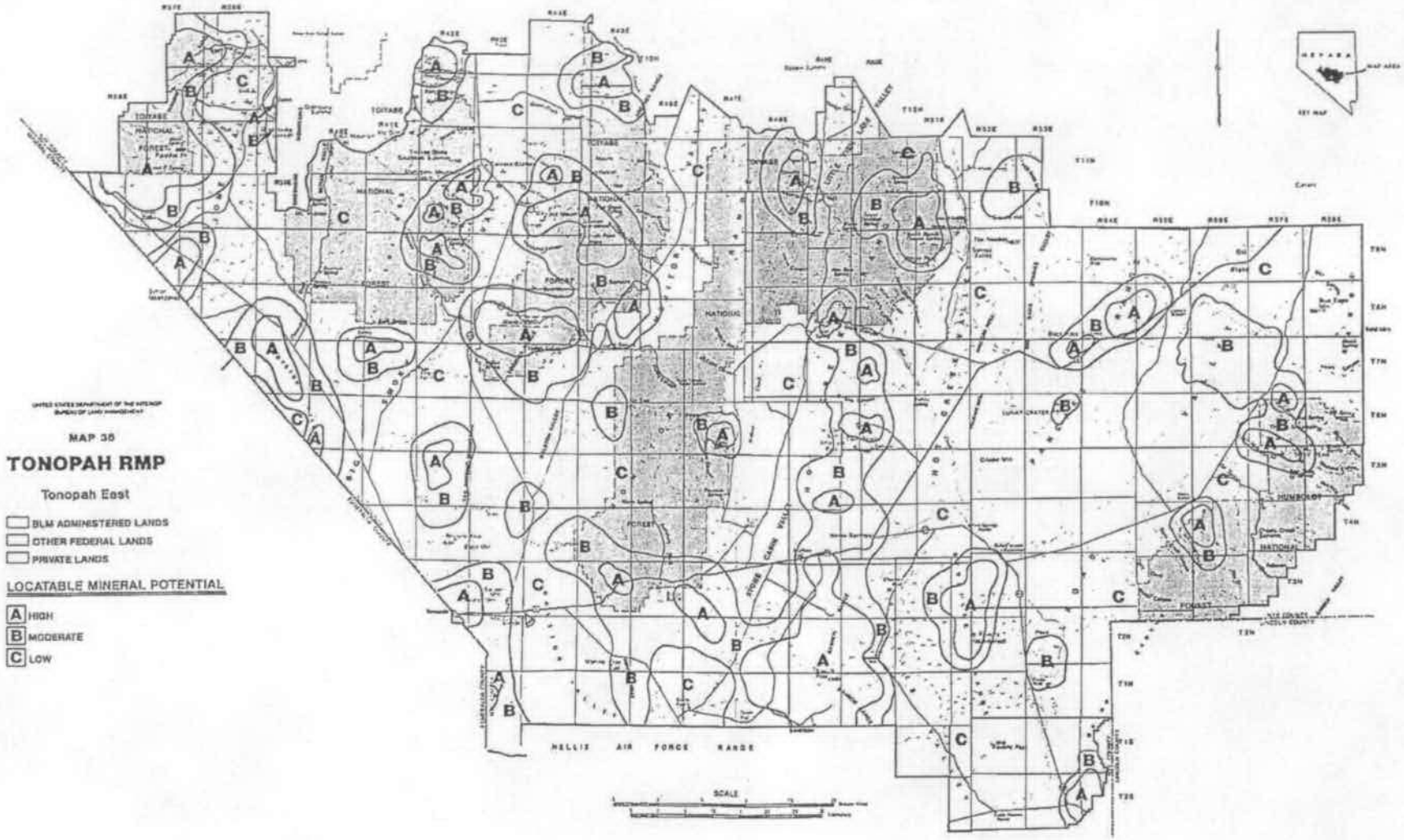

MAP 24
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
WITHDRAWALS
1 WITHDRAWALS
DEPICTS GENERAL LOCATION OF WITHDRAWAL. FOR SPECIFIC LEGAL DESCRIPTION SEE APPENDIX 14.
HELLIS AIR FORCE RANGE
SCALE

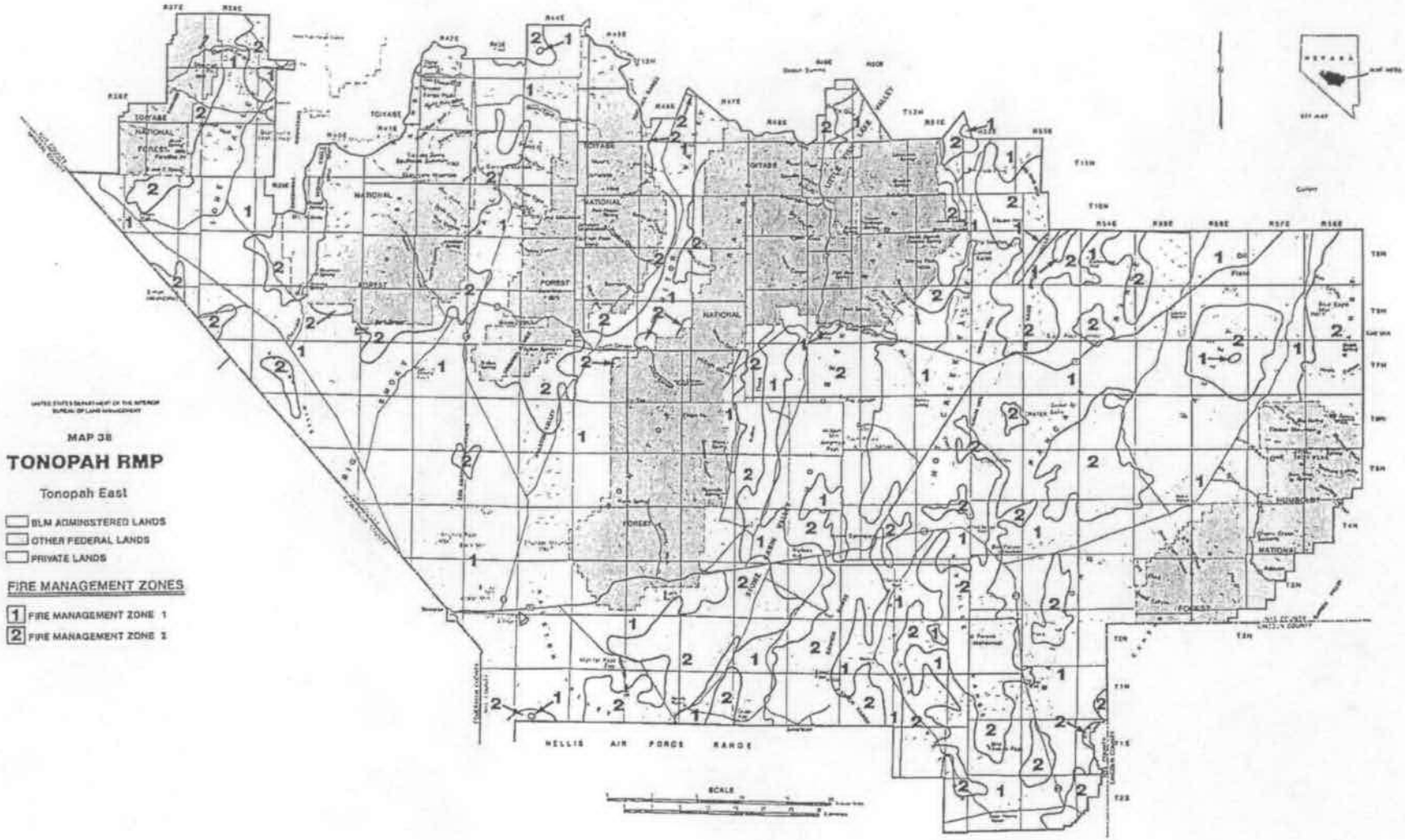

MAP 25
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
WILDERNESS STUDY AREAS
WSA BOUNDARIES
1 ANTELOPE RANGE
2 PARK RANGE
3 MOREY PEAK
4 FANDANGO
5 BLUE EAGLE
6 RIORDANS WELL
7 RAWHIDE
8 PALISADE MESA
9 THE WALL
10 KAWICH
11 SOUTH REVEILLE
NELLIS AIR FORCE RANGE
SCALE


MAP 26
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
RECREATION OPPORTUNITY SPECTRUM
A PRIMITIVE
B SEMI PRIMITIVE NON-MOTORIZED
C SEMI PRIMITIVE MOTORIZED
HELLIS AIR FORCE RANGE
SCALE


UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MAP 30
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
OFF HIGHWAY VEHICLE RESTRICTIONS
1 CLOSED
2 LIMITED TO EXISTING ROADS AND TRAILS AND CLOSED TO COMPETITIVE EVENTS
3 LIMITED TO EXISTING ROADS AND TRAILS
4 SEASONAL RESTRICTIONS ON COMPETITIVE EVENTS
NELLIS AIR FORCE RANGE
SCALE
NEVADA
KEY MAP

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MAP 32
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
FLUID MINERAL POTENTIAL
1 OIL AND GAS
H HIGH
M MODERATE
L LOW
2 GEOTHERMAL
H HIGH
M MODERATE
L LOW
NEVADA
MAP AREA
KEY MAP
NELLIS AIR FORCE RANGE
SCALE
2M
2H
2L
1M
1H


UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MAP 35
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
LOCATABLE MINERAL POTENTIAL
A HIGH
B MODERATE
C LOW
NELLIS AIR FORCE RANGE
SCALE


MAP 38
TONOPAH RMP
Tonopah East
BLM ADMINISTERED LANDS
OTHER FEDERAL LANDS
PRIVATE LANDS
FIRE MANAGEMENT ZONES
1 FIRE MANAGEMENT ZONE 1
2 FIRE MANAGEMENT ZONE 2
NELLIS AIR FORCE RANGE
SCALE

APPENDIX B

Sample Permittee Information Packet

XX Allotment

Information Package

Permittee

- John Doe

MEMORANDUM

Date: September 16, 2004

To: Allotment Permittee

From: Resource Concepts, Inc.

Subject: Rancher Introduction Caliente Rail Line Corridor

As you are aware, the Department of Energy (DOE) is preparing an Environmental Impact Statement (EIS) to evaluate the proposed Rail Line, which will transport Spent Nuclear Fuel and High-Level Radioactive Waste and other materials from Caliente to the Yucca Mountain Repository. The proposed Rail Line Corridor is a 0.25 miles wide strip that ranges between 318 and 344 miles in length depending on variations considered.

Preliminary review of the proposed Rail Line indicates the corridor will pass through Bureau of Land Management (BLM) Grazing Allotments including the one you are permitted to utilize. The DOE and the BLM are requesting your assistance in identifying the potential impact of the proposed Rail Line on your Allotment and associated grazing permit. Additionally the DOE and BLM are requesting your assistance in identifying options to mitigate the potential impact to the Allotments.

The DOE has retained Resource Concepts, Inc (RCI) to facilitate meetings with the Grazing Permittees and provide direction to evaluate the potential impacts to each Allotment. RCI has conducted a preliminary review of each of the BLM Allotment files and copied current information relevant to each Grazing Permit. The retrieved documentation has been included in the attached Brochure for your consideration and analysis.

The Brochure contains the following general information:

- Grazing Allotment Impact Review Instructions
- Term Permit
- Existing Range Improvement Map
- Rail Line Corridor-Allotment Topographic Maps
- Example Range Improvement Map
- Miscellaneous Information

Proposed Caliente Rail Line Corridor Grazing Allotment Impact Review Process

This Package contains information that was retrieved from the Bureau of Land Management (BLM) files. There is no guarantee that the provided information is complete or accurate. With this information and your knowledge of the allotment, please consider assisting the BLM and Department of Energy (DOE) with the following:

- Identify and map inaccurate and omitted range improvements
- Identify and map impacted base properties (both land and water)
- Identify potential Rail Line impacts to the allotment, resources, improvements and grazing permit
- Identify options that mitigate potential impacts
- Participate in an on-site meeting to review the above-listed items

Recommended Allotment/Analysis Process

A format has been developed to help you identify, analyze and present impacts, issues, and mitigation. You may deviate from the suggested steps, however please provide detailed information.

When performing the analysis on your allotment, please be as specific as possible when describing locations, pasture names, distances, quantities, amounts of time, times within the year, etc. All impacts and mitigation recommendations need to be presented accurately and thoroughly.

Each allotment-permittee will be contacted to schedule an interview and on-site visit (if appropriate) to review and gather your information and assure understanding of your response. The information will be utilized in the preparation of a **Report** to the BLM and DOE that accurately and thoroughly presents your identified impacts and proposed mitigation measures.

➢ ***Proposed Allotment Analysis Steps***

1. All allotments permitted in common (more than one permittee) should provide one report for all permittees. If there is disagreement between permittees, please provide exception or minority reports. All permittees should participate in the allotment interview and on-site review.

2. Review all allotment documentation within this package and any additional documentation that you might have access to or posses. Typical allotment resources and issues to be considered include wells, springs, water storage, reservoirs, pipelines, base property, fences, roads, cattle guards, grazing systems, etc.

3. Check the ***Existing Range Improvements Map*** and ***Table*** provided in Appendix-A for completeness and accuracy of range improvements. Update the map to show corrections and additions. Describe the corrections and additions on the legend.

4.a. Use the ***Allotment Impacts and Issues Map*** and ***Table*** in Appendix-B1 to identify issues and impacts that you foresee on your livestock operation with an **unfenced** corridor. (Refer to Appendix-E for an example). The following could be considered while identifying impacts to your livestock operation:

- Number of AUM's
- Restricted or disrupted timing of allotment/pasture use
- Additional labor required for increased pasture/allotment livestock movement frequencies
- Restrictions and limited access to available water sources/improvements
- Fence crossings and potential livestock trespass from adjacent allotments
- Livestock losses due to collision

4.b. Use the ***Allotment Impacts and Issues Map*** and ***Table*** in Appendix-B2 to identify additional impacts that would be caused by **fencing** the corridor. (Refer to Appendix-E for an example).

5.a. Use the ***Allotment Mitigation Map*** and ***Table*** provided in Appendix-C1 to identify your recommended mitigation measures that would lessen the impacts on your livestock operation with an **unfenced** corridor (Refer to Appendix-F for an example). While developing recommendations, consider the following:

- New pastures needed or created by rail
- Additional or relocated improvements needed (fences, water sources, pipelines, etc.)
- Term permit adjustments (aum's, in and out dates, etc.)
- Sheep and cattle trails
- Livestock and/or vehicle crossings
- Access roads
- Fencing of rail
- Road maintenance requirements under heavy use

5.b. Use the ***Allotment Mitigation Map*** and ***Table*** provided in Appendix-C2 to identify additional mitigation needs that would be caused by **fencing** the corridor. (Refer to Appendix-F for an example).

Within a few weeks, all permittees will be contacted to schedule an interview and on-site review (if appropriate). The maps and information provided by the permittee will be incorporated into a technical memorandum. The draft technical memorandum and maps will be forwarded to each permittee for review and comment. Each technical memorandum will be included in a final report furnished to the BLM and DOE for consideration.

Included Appendices

Appendix A: Existing Range Improvement Map and Table; Contains the current compilation of the existing range improvements furnished by BLM (to be used in step #2).

Appendix B1: Allotment Impacts and Issues Map (without corridor fencing); Contains an Issues and Impacts Map and Table showing the allotment and the proposed Caliente Corridor (to be used in step #4.a.).

Appendix B2: Allotment Impacts and Issues Map (with corridor fencing); Contains an Issues and Impacts Map and Table showing the allotment and the proposed Caliente Corridor (to be used in step #4.b.).

Appendix C1: Allotment Mitigation Map (without corridor fencing); Contains a Mitigation Map and Table showing the allotment and the proposed Caliente Corridor (to be used in step #5.a.).

Appendix C2: Allotment Mitigation Map (with corridor fencing); Contains a Mitigation Map and Table showing the allotment and the proposed Caliente Corridor (to be used in step #5.b.).

Appendix D: Miscellaneous Information; Could contain Term Permit and other miscellaneous information related to the allotment.

Appendix E: Example Allotment Impacts and Issues Map (to be used in assisting the permittee in step #4). Contains an Example-Allotment Impacts and Issues Map and Table that demonstrates the format to be used in step #4.

Appendix F: Example Allotment Mitigation Map (to be used in assisting the permittee in steps #5). Contains an Example-Allotment Mitigation Map and Table that demonstrates the format to be used in step #5.

APPENDIX A - EXISTING RANGE IMPROVEMENT MAP AND TABLE

Location Description (on map)	Category	Description

APPENDIX B1 - ALLOTMENT IMPACTS AND ISSUES MAP AND TABLE

(without corridor fencing)

Location Description (on map)	Category	Description

APPENDIX B2 - ALLOTMENT IMPACTS AND ISSUES MAP AND TABLE

(with corridor fencing)

Location Description (on map)	Category	Description

APPENDIX C1 - ALLOTMENT MITIGATION MAP AND TABLE

(without corridor fencing)

Location Description (on map)	Category	Description

APPENDIX C2 - ALLOTMENT MITIGATION MAP AND TABLE

(with corridor fencing)

Location Description (on map)	Category	Description

APPENDIX D - MISCELLANEOUS INFORMATION

This section included a project-wide map of the Proposed Yucca Mt. Corridor. It also included the permittee's term grazing permit, and any pertinent range improvement information for the respective allotment.

APPENDIX E - EXAMPLE ALLOTMENT IMPACTS AND ISSUES MAP AND TABLE

Location (on map) Description	Category	Description
#1	Water Availability	The existing trough will only serve half of the pasture because of Rail alignment. Cattle will not be able to access it readily with limited or no access points.
#2	Forage Use Loss / Water Availability	Forage loss due to lack of water source (in the area of #1 on the map). The water source that served this part of the pasture will be located on the other side of the Rail, and will be too difficult for cattle to find through limited access if they are placed in the pasture on this side of the Rail.
#3	Roads / Livestock Movement	Access road will be blocked by Rail. Improvements will not be able to be serviced, water hauls will be cut off, and cattle drives can pass over the rail.
#3	Water Conveyance/ Availability	The pipeline located here provides water to the troughs below the Rail. The pipeline could be damaged during construction, rendering the pastures below (Mud Springs and Panther Canyon) useless due to lack of water.
#4	Livestock Movement	Trail to seeding will be cut-off by Rail alignment. Annual movement of cattle from pasture to pasture requires a trail that leads from a pasture on the other side of the Rail from the location of this seeding.
#5	Economic/ Property Loss	Range is entirely open across this allotment. The resulting livestock collision loss would significantly affect the economic viability of the ranch.

Insert Impacts and Issues ID Map

APPENDIX F – EXAMPLE ALLOTMENT MITIGATION MAP AND TABLE

Location (on map) Description	Category	Description
#1	Water Availability	A trough must be installed on the other side of the Rail (at #2 on map), or adequate crossings (every ½ mile) must be installed so that cattle can access water from all areas of the pasture.
#2	Forage Use / Water Availability	A trough must be installed here (#2 on map) so that there is no resulting effective forage loss from the lack of water on this side of the pasture. Also, installing this water source instead of installing multiple access points would reduce the level of cattle collision loss.
#3	Roads / Livestock Movement/ General Operations	Make sure that there is a crossing located here so that operations such as improvement maintenance, livestock trailing, and water hauling can still occur as scheduled and permitted.
#3	Water Conveyance/ Availability	Make sure that pipeline remains in place, and if it has to be moved, then replace and engineer to provide water during and after construction is complete.
#4	Livestock Movement	Make sure that a crossing point is installed here for annual movement of cattle into and out of the Jim Creek seeding.
#5	Property Loss/ Fencing	The entire length of the rail through the Mud Springs pasture should be fenced so that new pastures (Mud Springs North and Mud Springs South) are created, and collision losses are prevented to the extent possible.

Insert Min and Mit Map