U.S. Department of the Interior
Bureau of Land Management
White River Field Office
73544 Hwy 64
Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER CO-110-05-011-EA

CASEFILE/PROJECT NUMBER: Smith/Crawford Allotment (06625)

PROJECT NAME: Grazing Permit Renewals for David Smith Ranches, Inc. and Gayle R. Crawford (Rogers).

LEGAL DESCRIPTION:

Location of Proposed Action: Rio Blanco County

Allotment			Legal Description		
No:	**Name:**	**BLM Acres:**	**TWP (S):**	**RGE (W.)**	**Section(s)/Lot(s) \or Portions of**
06625	Smith/Crawford	15045	T 3 N	R 94 W	Sec. 24-26, 28, 33-36
			T 3 N	R 93 W	Sec. 19, 30, 29, 32
			T 2 N	R 94 W	Sec. 1-5, 8-12, Sec 13, Sec 14, Sec 15-17, Sec 23, Sec 24-27, Sec 29, Sec 30, Sec 31, Sec 32-36
			T 2 N	R 93 W	Sec 5, 6, 18, 19, 30
			T 1 N	R 94 W	Sec 1-10, 15, 16, 21, 22

APPLICANTS: David Smith Ranches, Inc. (0501479) & Gayle R. Rogers (Crawford) (0501480)

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: David Smith Ranches Inc. and Gayle Rogers (Crawford) operate cattle ranches on the Smith/Crawford BLM grazing allotment. Based on prior analysis of the allotment's resource characteristics and potential this grazing allotment has been categorized as Improve, an intensive management category. It is an in-common allotment with four primary pastures – Lion Canyon, Danforth Hills, Sulphur Creek, and Devil's Hole. Both ranches graze cattle on the Lion Canyon and Danforth Hills pastures. Sulphur Creek historically has been grazed exclusively by Smiths and Devil's Hole has been grazed exclusively by Rogers. The grazing season starts May 15th, when livestock are moved into the Lion Canyon pasture where they stay until approximately June 30th. At this time most cattle are moved into the higher Danforth pasture where they stay until the end of September. Smith's cattle are then moved into Sulphur Creek where they stay until November 1st and Rogers' cattle are moved into the Devil's Hole pasture where they stay until November 15th. Smith's livestock are wintered and fed on private lands. Rogers' livestock are also wintered and fed on private lands; however, there are several small isolated parcels of BLM lands within this area. The proposed grazing schedule will incorporate this use.

The allotment can be divided into three elevation zones with dominant vegetative classifications listed below:

1. Lion Canyon – Primarily sage brush and pinyon/juniper plant communities
2. Sulphur Creek and Devil's Hole - Pinyon/juniper and mountain shrub plant communities
3. Danforth Hills (Wilson and Good Spring Creek) – Mountain shrub and aspen woodland plant communities.

A. Proposed Action: (Allotment Management Plan): Renew the grazing permits for David Smith Ranches, Inc. and Gayle R. Crawford for a 10 year period as outlined in the proposed grazing permit tables below. A term and condition on the permits will require the permittees to follow the prescribed rotation pattern as outlined in this Environmental Assessment (EA), which will also function as an Allotment Management Plan (AMP). The modified AMP will focus on a revised grazing system having the primary purpose of meeting the minimum rest requirements established by the White River ROD/RMP (March 20 – July 11 every other year). The grazing schedule will provide rest from livestock grazing during the critical growing season every other year. The revised AMP will also provide for riparian system improvement as well as insuring that the Standards for Public Land Health are met in the future. The grazing permit will also include implementation of range improvements listed below to insure maintenance and improvement of rangeland health through improved distribution. Grazing schedules (below) will be incorporated into the grazing permits (0501479 and 0501480) under renewal. The proposed rotational grazing schedule will be a Term and Condition on the grazing permits and will state, "Grazing use will occur as outlined in the 2005 Smith/Crawford AMP." Active AUMs on the *Grazing Application for Permit Renewal* have been adjusted to more accurately reflect the carrying capacity of the rangelands.

The proposed grazing schedules were developed in conjunction with the grazing permittees (David Smith of David Smith Ranches, Inc. and Gayle and Ken Rogers of the Crawford Ranch) and are outlined in the *Grazing Application for Permit Renewal* forms signed by Mr. Smith and Mr. and Mrs. Rogers on 12/20/04 and 12/22/04 respectively.

Smith/Crawford Allotment Management Plan: The objectives of the allotment management plan are to:

- Maintain or enhance a healthy rangeland vegetation composition and species diversity, capable of supplying forage at a sustained yield to meet the current forage demands for livestock and wildlife.
- Provide for adequate forage plant growth and or re-growth opportunities necessary to: 1) replenish plants' food reserves; and 2) produce sufficient seed to meet the reproduction needs necessary to maintain an ecological presence in the plant community.
- Establish a grazing system where the permittees can use the pastures on this allotment to graze the range with a strategy that provides for plant growth requirements and provides for the most economical use of all forage resources available to ranch operations.

The Rangeland Administration System (RAS) computer program is limited to a single schedule which cannot display rotations on grazing permits. Therefore, the grazing schedule tables listed below would be incorporated into the grazing permits (0501479 and 0501480) under renewal, with the proposed rotational schedules (listed under the Grazing Management section below)

added as a Term and Condition on the grazing permits, which will state "grazing use will occur as outlined in the 2005 Smith/Crawford AMP". Suspended AUM numbers from the previous permits will be carried forward onto the new grazing permits. Active AUMs have been adjusted to better match the carrying capacity of the rangelands.

Proposed Grazing Permit (0501479) for David Smith Ranches, Inc.										
Allotment Name	**Pasture Name**	**Livestock**		**Date**		**% PL**	**BLM AUMs scheduled**	**Active AUMs**	**Susp. AUMs**	**Total AUMs**
		#	**Kind**	**On**	**Off**					
Smith / Crawford 06625	Sulphur Creek	110	C	05/15	10/31	47%	**289**	**316**	**410**	
	Danforth	102	C	07/12	09/30	77%	**210**	**210**		
	Lion Canyon	40	C	05/15	06/30	90%	**56**	**145**		
						Totals--	**555**	**671**	**410**	**1081**

*Grazing use during the spring period will be an every other year rotational system as outlined in this document.

Proposed Grazing Permit (0501480) for Gayle R. Crawford										
Allotment Name	**Pasture Name**	**Livestock**		**Date**		**% PL**	**BLM AUMs scheduled**	**Active AUMs**	**Susp. AUMs**	**Total AUMs**
		#	**Kind**	**On**	**Off**					
Smith / Crawford 06625	Devil's Hole main	90	C	05/15	11/15	59%	**323**	**496**	**564**	
	Devil's Hole pvt.	20	C	11/16	07/11	6%	**9**			
	Teepee (Sulphur)	40	C	07/12	08/30	47%	**31**	**55**		
	Danforth	110	C	07/01	09/30	77%	**256**	**250**		
	Lion Canyon	50	C	10/01	10/31	90%	**46**	**209**		
						Totals--	**665**	**1010**	**564**	**1574**

*Grazing use during the spring period will be an every other year rotational system as outlined in this document.

Grazing Management Schedule: The proposed grazing management schedule will implement a deferred rotational grazing system that will utilize the four pastures in combination with private lands in a two year rotational system. This grazing system will be put into operation at the start of the 2005 grazing season. The following tables depict the two year rotation under the proposed action.

Proposed Grazing Schedule for the Smith/Crawford Allotment by Pasture for David Smith Ranches, Inc. (0501479)						
Even Years	Livestock		Date		% PL	BLM AUMs scheduled
Pasture Name	#	Kind	On	Off		
Sulphur (lower)	50	C	05/15	06/15	47	25
Sulphur (mid)	100	C	05/15	06/15		49
Sulphur (mid)	150	C	06/16	07/11		60
Sulphur (lower)	48	C	07/12	09/30		60
Danforth	102	C	07/12	09/30	77	209
Sulphur (upper)	110	C	10/01	10/31	47	53
Lion Canyon	40	C	10/01	10/31	90	37
				Total (Even Year)		**493**

Proposed Grazing Schedule for the Smith/Crawford Allotment by Pasture for David Smith Ranches, Inc. (0501479)						
Odd Years	Livestock		Date		% PL	BLM AUMs scheduled
Pasture Name	#	Kind	On	Off		
Lion Canyon	40	C	05/15	06/30	90	56
Sulphur (mid)	110	C	05/15	06/30	47	80
Sulphur (mid)	60	C	07/01	09/30		85
Danforth	90	C	07/01	09/30	77	210
Sulphur (upper)	100	C	10/01	10/31	47	48
Sulphur (lower)	50	C	10/01	10/31		24
				Total (Odd Year)		**503**

Proposed Grazing Schedule for the Smith/Crawford Allotment by Pasture for Gayle R. Crawford (0501480)						
Even Years	Livestock		Date		% PL	BLM AUMs scheduled
Pasture Name	#	Kind	On	Off		
Devil's Hole Main	100	C	05/15	07/11	59	113
Tepee Park (Sulphur)	40	C	07/12	08/30	47	31
Danforth	130	C	07/12	08/30	77	165
Devil's Hole Main	20	C	07/12	08/30	59	19
Danforth	110	C	09/01	09/30	77	84
Devil's Hole Main	80	C	09/01	09/30	59	47
Devil's Hole Main	140	C	10/01	10/31		84
Lion Canyon	50	C	10/01	10/31	90	46
Devil's Hole Main	190	C	11/01	11/15	59	55
Devil's Hole Pvt.	20	C	11/16	12/31	6	2
Devil's Hole Pvt.	20	C	01/01	05/14	6	5
Devil's Hole Pvt.	90	C	05/15	07/11	6	10
				Total (Even Year)		**661**
Odd Years	Livestock		Date		% PL	BLM AUMs scheduled
Pasture Name	#	Kind	On	Off		
Lion Canyon	50	C	05/15	06/30	90	70
Tepee Park (Sulphur)	30	C	07/01	08/15	47	21
Devil's Hole Main	53	C	07/01	08/15	59	47
Danforth	107	C	07/01	08/15	77	125
Danforth	107	C	08/16	09/30		125
Devil's Hole Main	83	C	08/16	09/30	59	74
Devil's Hole Main	190	C	10/01	11/15		170
Devil's Hole Pvt.	20	C	11/16	12/31	6	2
Devil's Hole Pvt.	20	C	01/01	05/14	6	5
Devil's Hole Pvt.	140	C	05/15	06/30	6	16
				Total (Odd Year)		**655**

The permittees, David Smith Ranches, Inc. and Gayle R. Crawford have agreed to voluntary non-use of the difference between permitted AUMs and the AUMs scheduled from the proposed grazing schedule tables (437 AUMs on odd years 442 AUMs on even years) through the fourth year of implementation of this plan. At that time the BLM will complete an evaluation and make a determination as to whether any or all of these preference AUMs not scheduled should be permitted for use or be removed.

The percent public land, which is the percentage of BLM (active) AUMs in relation to total AUMs (BLM, and private AUMs), was recalculated for the allotment and pastures. Advances in

technology (e.g. computer calculations using Arcview and Excel spreadsheets) produced more accurate forage allocation based on land ownership, allowing the adjustment in percent public land. (See Range Section of this document)

Plan of Operation: Each year, thirty days prior to turnout in the Smith/Crawford allotment, the permittees will submit a plan of operation (grazing application) for the grazing year to the BLM for approval. The plan of operation will include the anticipated turnout dates, numbers of animals, and the sequence that the pastures will be used for the year.

Limits of Flexibility: Permittees will be allowed some flexibility from the submitted plan of operation during the grazing year that will not require prior approval from BLM. This flexibility will be limited to on or off dates and number of animals to adjust to changing climatic conditions, forage availability, and operational needs. Flexibility will be limited to 10 days either side of the on or off dates provided that the total days of use are not more than 10 days more than the schedule approved in the annual plan of operations. However, this flexibility does not apply to entering the Danforth pasture before the scheduled on-date unless pre-approved by the BLM. Permittees will also be able to adjust number of animals by 10% (+/-) from the annual plan of operation provided the total AUMs of use do not exceed the AUMs scheduled.

Flexibilities requiring approval by the BLM are adjustments made beyond the above criteria. BLM approved flexibilities and/or changes to this plan may be required due to forage conditions, drought, fire, and/or water availability. The BLM may also adjust this plan in order to meet Public Land Health Standards (e.g. when utilization levels in any pasture reach 60 percent, cattle will be removed and adjustments will be made to future stocking levels accordingly).

Range improvements – Twenty-eight small pit reservoirs will be constructed to improve livestock distribution and will also function as watershed structures to retain silt. The proposed locations of these reservoirs have been mapped using GPS and are indicated on the attached map (see fig.1). These will be small structures, less than 1000 cubic yards each. The area of disturbance will be no larger than 75 X 75 feet. Soil type associated with each pond site is addressed in the Soils section. All disturbed areas will be promptly re-vegetated by seeding with adapted species. Equipment will not disturb soil to construct access routes to the pond locations and vegetation will only be cleared enough to allow equipment access in to the proposed pond sites. Large debris will be drug back on to these areas to discourage future use. Locations by pasture and number of reservoirs proposed are: Lion Canyon (8), Danforth (3), and Devil's Hole (17). If all 28 proposed ponds are built, overall surface disturbance will be 3.6 acres. These reservoirs will only be constructed after completion of Cooperative Agreements. A fence will be constructed on private land in the Sulphur Creek pasture to control livestock use on the BLM lands in the southern end of the pasture. The existing Tepee Park fence (project #4614) will also be maintained to control livestock use in Tepee Park, and the Devil's Hole and Danforth pastures. Future evaluations of allotment conditions may identify additional improvements that will aid in achieving objectives. In which case, a separate Environmental Assessment (EA) would be compiled to evaluate any such new range improvement on a site specific basis.

Monitoring and Evaluation: Within the Smith/Crawford allotment there are seven established trend plots. These plots were established in 1982 and were read in 1988 and again in 2004. One of the plots was destroyed by road construction and was re-established in 2004. Another site had previously been a photo plot only but this year was established as a trend plot. Trend plot sites include a permanent, repeatable photo plot and a permanent, repeatable Daubenmire transect to

measure ground cover and frequency. Study sites were established in key areas to monitor livestock grazing use. All study sites were established under protocol developed in the *Grazing Allotment Monitoring Plan for the White River Resource Area*. Trend site results were compiled this year after reading all sites. The next cycle for reading all trend studies will be in 4 years (2009) and then read again in 9 years from now (2014), prior to future renewal of the grazing permit.

Grazing Permit Terms and Conditions: The following terms and conditions as required by 43 CFR 4130.3 will be included in the grazing permit issued under this alternative:

1. Grazing use will occur as outlined in the 2005 Smith/Crawford AMP grazing schedule (EA#CO-110-05-011ea).
2. Each year billing notices are issued which specify, for the current year, the allotment(s), number and kind of livestock, period(s) of use, animal unit months of use, and the grazing fees due. These billing notices when paid become a part of this grazing permit/lease.
3. You must submit an Actual Use form within 15 days after completing annual grazing use. Grazing fees, which are based on the Actual Use form, are due upon issuance of a billing notice.
4. Each spring, 30 days prior to turnout, the permittee will submit a plan of operation (grazing application) for the grazing year to the BLM for approval. The plan of operation will include the anticipated turnout dates, numbers of animals, and the sequence that the allotment will be used.
5. The permittees or lessees must provide reasonable administrative access across private and leased lands to the BLM for the orderly management and protection of the public lands, as outlined 43 CFR 4130.3-2(h).
6. A grazing utilization limit of 50 percent of annual growth will be applied to public lands on the Smith/Crawford Allotment.
7. The authorized officer may require counting and/or additional or special marking or tagging of the livestock authorized to graze under this grazing permit/lease.
8. No grazing use can be authorized under this grazing permit/lease during any period of delinquency in the payment of amounts due in settlement for unauthorized grazing use.
9. Grazing use authorized under this grazing permit/lessee may be suspended, in whole or in part, for violation by the permittee/lessee of any of the provisions of the rules or regulations now or hereafter approved by the Secretary of the Interior.
10. This grazing permit/lease is subject to cancellation, in whole or in part, at any time because of:
    a. Noncompliance by the permittee/lessee with rules and regulations now or hereafter approved by the Secretary of the Interior.
    b. Loss of control by the permittee/lessee of all or a part of the property upon which it is based.
    c. A transfer of grazing preference by the permittee/lessee to another party.

d. A decrease in the lands administered by the Bureau of Land Management within the allotment(s) described herein.
e. Repeated willful unauthorized grazing use.

11. This grazing permit/lease is subject to the provisions of executive Order NO. 1BLM 1246 of September 24, 1965, as amended, which sets forth nondiscrimination clauses. A copy of this order may be obtained from the authorized officer.

12. The permittee/lessee must own or control and be responsible for the management of the livestock authorized to graze under this grazing permit/lease.

13. The permittee's/lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.

14. In order to improve livestock distribution on the public lands, all salt blocks and/or mineral supplements will not be placed within a 1/4 mile of any riparian area, wet meadow, or watering facility (either permanent or temporary) unless stipulated though a written agreement or decision in accordance with 43 CFR 4130.3-2(c).

15. In accordance with 43 CFR 4130.8-1(F): Failure to pay grazing bills within 15 days of the due date specified in the bill shall result in a late fee assessment of $25.00 or 10 percent of the grazing bill, whichever is greater, but not to exceed $250.00. Payment made later than 15 days after the due date, shall include the appropriate late fee assessment. Failure to make payment within 30 days may be a violation of 43 CFR Sec. 4140.1(b)(1) and shall result in action by the authorized officer under 43 CFR Secs. 4150.1 and 4160.1-2 (Trespass).

Acceptance and Approval of Smith/Crawford Allotment Management Plan (AMP):

Grazing Permittee_____ _____
David Smith Ranches, Inc. by David H. Smith Date

Grazing Permittee: _____ _____
Gayle R. and Kenny G. Rogers Date

Prepared by: _____ _____
Mary Taylor, White River Range Staff Date

Approved: _____ _____
White River Field Manager Date

B. Continuation of Current Management Alternative: This alternative would renew the expiring permits for a period of 10 years with no changes made in livestock kind, numbers, season of use, or type of use (active, suspended). Current permitted grazing schedules are outlined in the tables below. Current permitted use does not meet minimum rest requirements established by the White River ROD/RMP.

Current Grazing Permit 0501479 David Smith Ranches, Inc.										
Allot. #	Allot. Name	Livestock		Begin	End	% PL	Scheduled AUMs	Permitted Active AUMs	Susp. AUMs	Total AUMs
		#	Kind							
06625	Smith / Crawford	286	Cattle	05/15	06/30	50	221	791	410	1174
		187	Cattle	07/01	09/30	50	283			
		56	Cattle	05/15	09/30	50	128			
		45	Cattle	07/01	09/30	70	95			
		130	Cattle	10/01	10/30	50	64			

Current Grazing Permit 0501480 Gayle R. Crawford										
Allot. #	Allot. Name	Livestock		Begin	End	% PL	Scheduled AUMs	Permitted Active AUMs	Susp. AUMs	Total AUMs
		#	Kind							
06625	Smith / Crawford	500	Cattle	05/15	06/30	50	386	1124	564	1688
		124	Cattle	07/01	09/30	61	229			
		56	Cattle	05/15	09/30	50	128			
		310	Cattle	10/01	11/15	50	234			

An AMP has been in place since May of 1985 and its grazing schedule is outlined below. As shown by actual use submitted by the permittees, the ranches generally have not followed this plan and it needs to be revised to allow for improved compliance.

1985 Allotment Management Plan Grazing Schedule					
Pasture	Period of Use		Permittees	AUMs	Utilization Objectives
Lion Canyon	05/16	06/30	Smith	220	Light Use
			Crawford	384	
Devil's Hole	07/01	11/15	Crawford	239	
Sulphur Creek	07/01	11/15	Smith	131	
Danforth Hills	07/01	10/30	Smith	287	Moderate Use
			Crawford	501	

Terms and Conditions: Use is authorized by the Allotment Management Plan (AMP) dated 05/10/85. Permittees are billed from actual use submitted after each grazing period. Actual use must be submitted within fifteen (15) days after the end of each grazing period or else billing will be based on the maximum allowable use as specified in the Smith-Crawford AMP.

C. No Grazing Alternative: The no-grazing alternative consists of not issuing a grazing permit for livestock use. There would be no livestock grazing on public lands within the allotment on which it is currently permitted. This alternative would not be in compliance with the RMP decision to provide for livestock grazing as one of the acceptable multiple uses.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None

NEED FOR PROPOSED ACTION: BLM permits #0501480 and #0501479, which authorize grazing on the Smith Crawford allotment (#06625), expire on February 28, 2005. These permits are subject to renewal or transfer at the discretion of the Secretary of the Interior for a period of up to ten years. The Bureau of Land Management has the authority to renew the livestock grazing permit/lease consistent with the provisions of the *Taylor Grazing Act, Public Rangelands Improvement Act, Federal Land Policy and Management Act, and the White River Resource Area Resource Management Plan/Environmental Impact Statement*. The grazing permittees have a preference right to receive the permits, which is recognized as a primary use under the land use plan, the White River Record of Decision and Approved Resource Management Plan. In order to graze livestock on public land, the livestock producer (permittee) must hold a grazing permit.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: pages 2-22 through 2-26

Decision Language: Livestock grazing will be managed as described in the 1981 Rangeland Program Summary (RPS). That document is the Record of Decision for the 1981 White River Grazing Management Final Environmental Impact Statement (Grazing EIS).

COMPLIANCE WITH SECTION 302 OF FLPMA RELATIVE TO THE COMB WASH GRAZING DECISION

A review of applicable planning documents and a thoughtful consideration of the new issues and new demands for the use of the public lands involved with this allotment have been made. This analysis concludes that the current multiple use allocation of resources is appropriate.

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a

finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

STANDARDS FOR PUBLIC LAND HEALTH							
	Current Situation			With Proposed Action		With No Grazing	
Standard	**Achieving or Moving Towards Achieving**	**Not Achieving**	**Causative Factors**	**Achieving or Moving Towards Achieving**	**Not Achieving**	**Achieving or Moving Towards Achieving**	**Not Achieving**
#1-Upland Soils							
Lion Canyon	3950 acres	553 acres	Yearly spring grazing	4034 acres	469 acres	4121 acres	382 acres
Sulphur Creek	2713 acres	220 acres	Recent grazing practices	2743 acres	190 acres	2753 acres	180 acres
Danforth	2828 acres	918 acres	Noxious weeds/ Recent grazing practices	3428 acres	318 acres	2928 acres	818 acres
Devil's Hole	3425 acres	438 acres	Noxious weeds/ Recent grazing practices	3725 acres	138 acres	3525 acres	338 acres
	14 % of Total			7.4 % of Total		11.4 % of Total	
#2-Riparian Systems							
Lion Canyon	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sulphur Creek	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Danforth	1.5 miles	3 miles	Recent grazing practices	3 miles	1.5 mile	4 miles	.5 mile
Devil's Hole	0.5 mile	0 mile	Recent grazing practices	0.5 mile	0 mile	0.5 mile	0 mile
	60% of Total			30 % of Total		10 % of Total	
#3-Plant Communities							
Lion Canyon	3950 acres	553 acres	Noxious weeds/ Recent grazing practices	4034 acres	469 acres	4121 acres	382 acres
Sulphur Creek	2713 acres	220 acres	Noxious weeds / Recent grazing practices	2743 acres	190 acres	2753 acres	180 acres
Danforth	2828 acres	918 acres	Noxious weeds/ Recent grazing practices	3428 acres	318 acres	2928 acres	818 acres
Devil's Hole	3425 acres	438 acres	Noxious weeds / Recent grazing practices	3725 acres	138 acres	3525 acres	338 acres
	14 % of Total			7 % of Total		11 % of Total	
#4-Animal Communities							
Lion Canyon	4261 acres	242 acres	Prevalence of annuals	4503 acres	0 acres	4503 acres	0 acres

STANDARDS FOR PUBLIC LAND HEALTH							
	Current Situation			With Proposed Action		With No Grazing	
Standard	**Achieving or Moving Towards Achieving**	**Not Achieving**	**Causative Factors**	**Achieving or Moving Towards Achieving**	**Not Achieving**	**Achieving or Moving Towards Achieving**	**Not Achieving**
Sulphur Creek	2713 acres	220 acres	Prevalence of annuals	2933 acres	0 acres	2933 acres	0 acres
Danforth	2788 acres	958 acres	Cumulative elk use, noxious weeds	2828 acres	918 acres	1955 acres	1791 acres
Devil's Hole	3725 acres	138 acres	Noxious weeds	3725 acres	138 acres	3129 acres	734 acres
	7 % of Total			7 % of Total		17 % of Total	
#4-Special Status, T&E Species							
Lion Canyon	4503 acres	0 acres	n/a	4503 acres	0 acres	4503 acres	0 acres
Sulphur Creek	2933 acres	0 acres	n/a	2933 acres	0 acres	2933 acres	0 acres
Danforth	3706 acres	40 acres	Cumulative elk use	3726 acres	20 acres	3746 acres	0 acres
Devil's Hole	3863 acres	0 acres	n/a	3863 acres	0 acres	3863 acres	0 acres
	0.3 % of Total			0.1 % of Total		0 % of Total	
#5-Water Quality							
Lion Canyon	4503 acres	0 acres	n/a	4503 acres	0 acres	4503 acres	0 acres
Sulphur Creek	2933 acres	0 acres	n/a	2933 acres	0 acres	2933 acres	0 acres
Danforth	3746 acres	0 acres	n/a	3746 acres	0 acres	3746 acres	0 acres
Devil's Hole	3863 acres	0 acres	n/a	3863 acres	0 acres	3863 acres	0 acres
	0 % of Total			0 % of Total		0 % of Total	

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: The entire White River RA has been designated as either attainment or unclassified for all pollutants, and most of the area has been designated prevention of significant deterioration (PSD) class II.

Environmental Consequences of the Proposed Action: The grazing management plan would not affect air quality. Impacts to air quality from livestock grazing are not anticipated.

Environmental Consequences of continuation of Current Management: Impacts are not anticipated from the current management alternative.

Environmental Consequences of the No Grazing Alternative: None

Mitigation: None

CULTURAL RESOURCES

Affected Environment: There are no recorded Cultural Resources in Devil's Hole or Danforth Hills. Slope is plus 30 percent in the areas where ponds are proposed. A Class III pedestrian inventory was completed on the access routes that will be used to reach the proposed pond sites. A 1000 foot Class III pedestrian inventory was completed around the proposed ponds. No Cultural Resources were identified. A Class III inventory was completed 1000 feet around proposed ponds P-24, P-25, P-26, and P-27 in Lion Canyon and along the access route that will be used to construct the ponds. No cultural resources were found. Proposed ponds P-1 and P-2 in Lion Canyon are located between two open camp sites, one with a radiocarbon date of 7500 BP. Both Sites are eligible for the National Register. In 1978 archaeologists from the Laboratory of Public Archaeology - Colorado State University excavated two 2 X 2m sites on the location on which ground would be disturbed for the building of power lines. Radiocarbon dates ranging from 2000 B.P. to 7500 B.P. were found. They also determined that this open camp site had been used again and again across the years by people traveling between the Colorado River and the Yampa and Green Rivers. These two sites need to be re-surveyed, re-inventoried and re-evaluated according to up-to-date criteria and standards. Given the amount of materials uncovered in the small areas of excavation and the radiocarbon dates recorded extensive excavation needs to take place at these sites. The areas around P-3 and P-28 have no Cultural Resources.

Environmental Consequences of the Proposed Action: There is little potential for destruction of Cultural Resources in Danforth Hills and Devil's Hole. There is grave potential for destruction of existing recorded cultural resources in Lion Canyon.

Environmental Consequences of the Continuation of Current Management Alternative: There are no consequences for continuation of current practices in Devil's Hole and Danforth Hills. There is grave potential for continued destruction of Cultural Resources in Lion Canyon.

Environmental Consequences of the No Grazing Alternative: None.

Mitigation: 1.The building of proposed ponds P-1 and P-2 (see attached map, fig. 2) will be deferred until such time as further excavation can take place and remapping, resurveying and reevaluation can provide adequate information on which to make determinations as the value of the Archaeological sites in Lion Canyon. This deferment will deter cows from creating further disturbance of the area.

2. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

3. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The predominant noxious weeds on this allotment being addressed by this environmental assessment include houndstongue (C*ynoglossum officinale*) and leafy spurge *(Euphorbia esula)*. There are infestations in about 2900 acres through the allotment. In the past twenty years houndstongue has spread through most of the drainages, associated slopes, and roadways in the Devil's Hole and Danforth pastures. Its spread can generally be attributed to livestock grazing. Other noxious weeds on the allotment also being addressed include yellow toadflax *(Linaria vulgaris)*, bull thistle *(Cirsium vulgare)*, Canada thistle *(Cirsium arvense)*, and musk thistle *(Carduus natans)*. Cheatgrass (*Bromus tectorum*) is present to some extent in many places within the allotment and dominates some of the early seral stage plant communities. Cheatgrass is most prominent in the Alkaline Slopes and Foothill Swale plant communities particularly in the western portion of the Lion Canyon pasture within a mile of Rio Blanco County Road 7. This area of rangeland has been subject to heavy utilization by cattle throughout the critical spring growth period on an annual basis, which is the most probable explanation for the current vegetation on the site.

Leafy spurge occurs primarily in the drainages and hill slopes of the Danforth and Devil's Hole pastures, with several small infestations occurring in both the Lion Canyon pasture and the southern part of the Sulphur Creek pasture. Leafy spurge affected areas resulted from the spread of long standing infestations that originated on adjacent private lands and is not attributable to livestock grazing on the allotment. Current rangeland conditions in the Danforth and Devil's Hole pastures predisposes these areas to noxious weed infestations due to an insufficient amount of competitive herbaceous plant species. Leafy spurge is being managed using Integrated Pest Management techniques as part of the Sulphur Creek Leafy Spurge Management Project. This program has been effective in reducing the density of leafy spurge on the affected areas and to some degree, eliminating it, confining it, or slowing its spread. Starting in 2005 the treatment area of the Sulphur Creek Leafy Spurge Management Project is expected to expand to include

the Danforth and Devil's Hole pastures. Treatment of houndstongue and the other noxious weeds listed above is also expected to increase as treatment of leafy spurge efforts expand into affected areas.

Environmental Consequences of the Proposed Action: Historic grazing practices such as continuous grazing season use at heavy stocking rates created the early seral cheatgrass dominated plant communities and also favored proliferation of other noxious and invasive species. These affected areas do not meet the Colorado Standard for upland vegetation and soils. The proposed action where the grazing system provides rotational growing season deferment every other year has the best potential to maximize vigor and improve reproductive potential of the native grass component of the various ecological sites involved. Construction of numerous small ponds throughout the allotment, but especially in the Devil's Hole pasture, would create disturbed areas initially and result in long term increased use around these sites. However, increased use at these sites would be offset by improved overall distribution. With improved livestock distribution, utilization levels would be more even throughout larger areas resulting in healthier plant communities, more resistant to invasion by noxious weeds.

While noxious weed species readily invade rangelands at all seral stages, the rate and extent of invasion would be less for mid and late seral rangelands which have a vigorous, competitive compliment of perennial grasses and forbs. It is likely that the only significant difference between current management and proposed action alternatives would be their capacity to influence the rate and extent of noxious weed invasion, not the process itself. Noxious and invasive species management would continue to take place on an active basis as grazing permittees would maintain treatment efforts.

Conditions in the early seral annual dominated plant communities are probably largely irreversible regardless of the livestock grazing management practices employed now and in the long term future without some form of human induced disturbance such as fire, accompanied by chemical treatment and seeding of adapted perennial grasses to preempt the return to cheatgrass dominance. Without intensive management these early seral cheatgrass dominated communities will remain unchanged in the future and will likely continue to not meet the Colorado Standard. This holds true under the Proposed Action, as well as the Continuation of Current Management alternative and the No Grazing alternative.

Environmental Consequences of the Continuation of Current Management: Adoption of this alternative would result in continued season long grazing in the Danforth pasture and no deferment in the critical growing season for any of the pastures. Without development of additional water sources, especially in the Devil's Hole pasture there would be no improvement in livestock distribution. This alternative would favor proliferation of noxious and invasive species. However, noxious and invasive species management would continue to take place on an active basis as grazing permittees would maintain treatment efforts.

Environmental Consequences of the No Grazing Alternative: The no-grazing alternative would likely result in reduced spread of houndstongue. Grazing permittees are the principal onsite practitioners in control efforts for noxious and invasive species. Under this alternative it is likely that noxious or invasive species management would be very limited and this would increase the probability of their continued spread. There would be an otherwise minimal change over the long term.

Mitigation: In compliance with Standards for Rangeland Health through managed grazing, mitigation to minimize the spread of cheatgrass would include aggressive rehabilitation including aerial and drill seeding with adapted species immediately following wildfire events, and aggressive re-vegetation of all earthen disturbances including any sites where ponds are constructed or maintained. To limit the spread and establishment of noxious and invasive species, all earthen disturbances will be re-vegetated with adapted grass species.

MIGRATORY BIRDS

Affected Environment: About 70% of the permit area is composed of mixed shrub communities dominated by heavy stands of deciduous mountain shrub (i.e., serviceberry, oakbrush). About 1600 acres of relatively contiguous aspen occurs primarily at upper elevations within the Danforth pasture. These higher elevation habitats support an assemblage of migratory birds typical of well-developed mountain shrub and aspen communities. Birds of higher conservation interest, including: Virginia's warbler, green-tailed towhee, broad-tailed hummingbird, violet-green swallow, red-naped sapsucker , lazuli bunting, and MacGillivray's warbler are well distributed and occur at appropriate densities in these habitats. A small nesting colony of purple martin persists in a mature aspen stand in the East Fork Good Spring Creek. The lower elevation pastures encompass about 2100 acres of intermixed Wyoming big sagebrush and pinyon-juniper woodlands that tend to be positioned on an abrupt interface with adjacent mountain shrub communities. The sagebrush habitats are generally occupied by a normal contingent of breeding birds (e.g., Brewer's sparrow, green-tailed towhee), but the pinyon-juniper stands, owing to their naturally fragmented and somewhat isolated character, support rather depauperate (i.e., abundance and richness lower than expected) avian communities.

Environmental Consequences of the Proposed Action: The proposed action involves an approximate 50% reduction in current levels of growing season use that is synchronous with the migratory bird nesting season. Overall grazing use levels would alternate between complete rest and light intensity use through June in the lower Sulphur Creek, Lion Canyon, and Devil's Hole pastures (no growing season use in the Danforth pasture) with only slight additional use through July in the Danforth, Devil's Hole, and lower Sulphur pastures (no July use in Lion Canyon). It is likely that this level of livestock grazing use would have little inhibitory effect (i.e., strong reductions in herbaceous ground cover as forage, forage substrate, or cover) on migratory bird nest establishment or production performance. Although the development of numerous small waters, most notably in the Devil's Hole pasture, would tend to increase grazing use intensity at these locales, the broader effect would be to moderate the rate and intensity of herbaceous ground cover loss in these allotments' bottomland-associated (i.e., sagebrush, mixed and mountain shrub) habitats. Longer term benefits attributable to deferred use, alternating years of rest, and reduced use intensity during the growing season would provide for sustained improvements in the composition, vigor, and density of herbaceous ground cover—particularly in those instances that presently fail to meet the land health standards due to excessive or prolonged grazing use and the prevalence of annual forms.

Reductions in overall livestock use (10-15%) to maintain moderate grazing use levels (about 50%), efforts to better distribute cattle through water developments, and sustained attempts by the State to reduce elk populations would help relieve overall grazing intensity on the Devil's

Hole and Danforth pastures and may allow minor improvements in the effectiveness (i.e., availability and density) of herbaceous volume as upland nest cover and foraging substrate for ground-nesting and insectivorous birds (e.g., Virginia's warbler, orange-crowned warbler) during the following nesting season. Concentrated use by elk (May through August) and cattle (July through September) in water-bearing drainages in the Danforth pasture would continue to suppress optimal aspen, willow, and herbaceous obligate expression in these drainages, and it is unlikely that gains made through the term of the permit would be substantive. With the application of proposed management measures, habitat conditions in these bottomlands would not be expected to degrade further, but it is unlikely that this acreage would be capable of supporting more than current populations of riparian-associated birds (e.g., Cordilleran flycatcher, purple martin). However, the proposed action does recognize this issue and provides a basis and priority to institute further management actions (e.g., physical deterrents) based on monitoring.

Environmental Consequences of the Continuation of Current Management Alternative: Current spring and summer grazing that is synchronous with the migratory bird nesting season is typically limited to the Lion Canyon and Sulphur Creek pastures. Turnout usually begins in mid-May and continues through the nesting season at slight to light overall use levels. However, terrain and water distribution issues tends to concentrate use in bottomland situations and, over time, persistent growing season use has prompted deleterious shifts in herbaceous composition across about 12% of the pastures' shrubland extent (about 450 acres). With relatively rapid and complete removal of understory cover in these areas, it is likely that breeding bird density on these lower-elevation shrublands (e.g., green-tailed towhee, Brewer's sparrow) is substantially reduced, though not eliminated. Shrubland associated birds remain abundant in suitable habitats across the remainder of the allotment.

Grazing use of the Devil's Hole and Danforth pastures begins near the end of the migratory bird nesting season. Although removal of residual herbaceous growth during the dormant period (i.e., little to no opportunity for regrowth) may reduce the availability of suitable nest sites for ground-nesting birds (e.g., Virginia's and orange-crowned warbler, spotted towhee) to a small degree, these birds' typically locate nests at the base of woody shrubs (i.e., unavailable to cattle) and begin nesting once green-up has begun (i.e., alternate cover development). The majority (i.e., at least 80%) of the noxious weed infestations in these pastures are not at a level that noticeably suppresses breeding bird density, due in large part to persistent control efforts by the livestock permittees.

The current state of riparian and associated bottomland habitats from dual elk and cattle use in the Danforth pasture would remain static under this alternative. From 20 to 40 acres of bottomland nesting habitat would remain subject to heavy early season elk grazing followed by grazing use through the fall by cattle. Nominal use of these habitats by species strongly associated with understory density, such as Lincoln's and fox sparrow and MacGillivray's warbler, would persist.

Environmental Consequences of the No Grazing Alternative: Removal of livestock grazing would substantially reduce the removal of herbaceous ground cover across the allotment; influencing breeding bird activity most where spring and summer use has significantly modified herbaceous ground cover that is used as nest substrate or provides a direct or indirect source of forage (i.e., cover reductions or adverse changes in density or composition). These situations are

most prevalent on bottomlands and adjacent slopes in close proximity to water. Substantive gains in breeding bird nest density and reproductive performance would be expected in those circumstances where grazing is currently synchronous with the nesting season. Studies where cattle had been removed from riparian and associated shrubland communities in the southwest showed 2 to 3-fold increases in vegetation density that prompted consistent doubling of breeding bird densities in virtually every guild.

The effects of livestock removal would be most influential on about 1,100 acres of lower elevation Wyoming big sagebrush and transitional mixed and mountain shrub communities in the Lion Canyon and Sulphur Creek pastures where persistent growing season use has manifested early to mid-seral conditions. This acreage represents about 13% of like types available in the permit area. Enhanced ground cover expression attributable to livestock removal would be expected to increase breeding bird densities, and would bolster local populations of higher conservation species such as Virginia's warbler, Brewer's sparrow, and green-tailed towhee.

Degraded riparian and valley conditions within the Danforth pasture (20-40 acres of habitat) are problematic since these habitats receive heavy spring and summer use by elk with further mid-summer through fall use by livestock. Assuming a general dispersal of concentrated elk use by mid August, livestock removal may allow slow and modest development of riparian growth on the wetted channel margins. More dramatic and expansive may be the redevelopment of woody forms such as willow and aspen which tend to sustain heavy use by cattle during the later summer and fall months, particularly when faced with depleted herbaceous forage supplies. Over the term of the permit, populations of riparian associates, including Cordilleran flycatcher, broad-tailed hummingbird, fox/song/and Lincoln's sparrow, lazuli bunting, and MacGillivray's warbler may undergo modest and localized increases.

Conversely and confounding any predictable vegetation response to livestock grazing, denying the permit may aggravate the proliferation of noxious weeds on the 2,100 acres of early to mid-seral mountain shrub range (including riparian and aspen communities) in the Danforth and Devil's Hole pastures. Disallowing a livestock permit would remove any incentive for the current permit holders to continue weed control on the allotment and it is unlikely that the BLM could fully assume this role. Noxious weeds would rapidly dominate understories within these communities and breeding bird populations, particularly insectivores such as warbling vireo, dusky flycatcher, and Virginia's and orange-crowned warblers, would be expected to undergo strong declines across 30% of the higher elevation shrubland and woodland types available in the permit area. Unchecked, these aggressive noxious weeds would persist in infesting and degrading more expansive late seral and potential natural community ranges.

Mitigation: See Riparian and Wetlands section.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: There are no animals listed, proposed, or candidate to the Endangered Species Act that occupy or derive important benefit from the permit area. There is limited potential for occurrence of two BLM sensitive species, the northern goshawk and Columbian sharp-tailed grouse, most specifically in mature aspen and ridgeline mountain shrub

communities in the Danforth pasture. Although mature aspen stands are widely recognized as a favored nest habitat of accipitrine hawks, including goshawk, BLM has never acquired any evidence of northern goshawk nest activity within the permit area or in similar adjacent habitats. Extensive aerial reconnaissance for nesting raptors in this area during 1980's failed to document goshawk nesting. Although evidently rare, there is no reason to discount this area's woodland stands as functional nest habitat for goshawk in the future.

Columbian sharp-tailed grouse, a species that has recently been repetitioned for listing under the Endangered Species Act, have undergone a generalized population expansion over the past several years in northwest Colorado and the Axial Basin/Danforth Hills population has mirrored that trend. Based on recent telemetry work in Axial Basin, there is a strong probability that at least a modest number of sharp-tailed grouse use about 600 acres of ridgeline mountain shrub/mountain big sagebrush habitats in the northern half of the Danforth pasture. This use likely involves occupation during the spring, summer, and fall months that would include nesting and brood-rearing functions.

Environmental Consequences of the Proposed Action: Nest habitat with the highest probability of northern goshawk occupation (mature aspen in the Danforth pasture) would not be subject to cattle use until early July. At this point nestlings would be within 1-2 weeks of fledging and be relatively independent of consistent brooding by adults. Livestock would have virtually no effect on herbaceous ground cover expression and its related influence on avian and mammalian prey populations through the majority of the nestling phase. Although collective grazing use by elk and cattle in drainage situations during July and August would lead to relatively rapid reductions in ground cover, this period would be largely coincident with dwindling prey availability and normal dispersal from the nest site in mid to late August. Proposed cattle use of these habitats would not be expected to have an adverse consequence on nest site selection, nest attendance, or nestling recruitment during potential goshawk nest efforts.

Concentrated use by cattle and elk is sustained in drainage bottoms and those areas in closer proximity to water through the late summer and early fall months and may be expected to locally suppress optimal aspen regeneration in these situations. Reductions in overall livestock use (10-15%) to maintain moderate grazing use levels (about 50%), efforts to better distribute cattle through water developments, and sustained attempts by the State to reduce elk populations would help relieve grazing pressure applied to woody plants. Although adequate aspen reproduction is widely evident in the Danforth pasture, the proposed action may promote accelerated redevelopment of aspen canopies in bottomland situations and ensure long-term stand persistence as future nest and foraging habitat for goshawk.

Cattle would enter the Danforth pasture shortly after most sharp-tailed grouse broods had hatched and, on alternate years, when the young are capable of short flights. Normally, subsequent grazing use would be expected to remain light on ridgeline shrub-steppe habitats until at least mid-August when chicks are half grown. However, proposed installation of livestock waters 4, 5, and 6 would encourage livestock and elk use along a broad ridgeline offering the largest continuous parcel of habitat likely occupied by sharp-tailed grouse. Sharp-tailed grouse habitats within the permit area may be subject to strong grazing-related influences (e.g., progressive removal of herbaceous ground cover as hiding cover, forage, and foraging substrate) during the nesting (elk) through early to middle brood-rearing phases (elk and cattle). By the end of the grazing season, overall use intensity associated with cattle and elk in these

ridgeline situations is expected to approach 60% (high end of moderate utilization) with higher use levels likely attained in close proximity to proposed waters. Cumulative ungulate use would be expected to remove functional intersticial ground cover on these habitats, although residual herbaceous growth beneath and among shrub canopies may be sufficient across the majority of these habitats to serve as early supplemental cover the following nesting season.

It is recommended that livestock ponds 4, 5, and 6 not be installed until detailed utilization studies can be applied through a grazing year on potential sharp-tailed grouse nest habitats in section 30 (T3N, R93W). This interval would also allow confirmation of whether grouse use these habitats. Subsequent water construction should be limited to a single site on the allotment's edge (e.g., preferably site 6) the following year to allow examination of elk response and the additive effect of later cattle use through August. In the event detrimental effects on sharp-tailed grouse are indicated, further water development that encourages use on sites best suited for sharp-tailed nest and brood functions should be avoided. In this case, concerted efforts would be made to locate alternate water sites that would avoid impacts to sharp-tailed grouse nesting and brood rearing functions, yet provide effective relief to grazing impacts on riparian and associated bottomland sites in the Danforth pasture.

Environmental Consequences of the Continuation of Current Management Alternative: Current grazing regimens affect special status species in a manner similar to that discussed in the proposed action. Livestock use of the higher-elevation Danforth pasture has historically been deferred until early or mid-July, although initiation of grazing occasionally occurs up to 3 weeks earlier than the proposed action. Livestock entry into this pasture during the month of June slightly increases the probability that substantive reductions in herbaceous cover height and density would occur during the reproductive seasons of nongame birds and mammals (as goshawk prey) and sharp-tailed grouse (forage and protective cover on brood ranges).

Although current forage use authorization is about 10-15% higher than that prescribed in the proposed action, because of uneven livestock distribution (i.e., water), grazing use would remain light (<40%) on ridgeline shrub-steppe habitats until at least mid-August when sharp-tailed grouse chicks are half grown and less vulnerable to losses of intersticial ground cover. Current management probably has limited influence on the utility of sharp-tailed grouse nest or brood habitat.

Current management would provide no effective means to reduce the level of concentrated grazing use of drainage bottoms and any inhibitory effects on aspen regeneration or willow expression in these situations. Although aspen reproduction is considered adequate to maintain upland sites, current management would likely prolong redevelopment of aspen canopies in bottomland situations as future nest and foraging habitat for goshawk.

Environmental Consequences of the No Grazing Alternative: Removing livestock grazing influences would substantially reduce the amount of herbaceous ground cover removed from the Danforth pasture from July through September. Although there are instances when heavy herbage production at higher elevations can impede chick mobility, continued elk use during the spring through mid-summer months in the Danforth pasture would provide levels of use and trampling impact sufficient to preclude rank understory development in upland nesting and brood-rearing habitats of sharp-tailed grouse. It is likely that nest and brood habitat would approach optimal conditions in this alternative (but see weed discussion below).

Heavy seasonal elk use would continue to impede or stall the redevelopment of bottomland and riparian vegetation as northern goshawk nest and foraging habitat, but without the additive effects of livestock later in the year, the extent of impacted area would be expected to become increasingly confined and localized (but see weed discussion below).
The proliferation and increasing dominance of noxious weeds that would probably attend permit denial (see Migratory Bird, No Action alternative) is an important management concern for sensitive species as well. Sites dominated by noxious weeds have no desirable forage or cover values for raptors or their prey base or grouse. More extensive control work that would likely attend large and consolidated weed infestations would involve more extensive and less selective herbicide treatments that would damage or eliminate interspersed shrub and herbaceous components in the long term.

Mitigation: Proposed livestock ponds 4, 5, and 6 should not be installed until detailed utilization studies can be applied through a grazing year on potential sharp-tailed grouse nest habitats in section 30 (T3N, R93W). This interval would also allow confirmation of whether grouse use these habitats. Subsequent water construction should be limited to a single site on the allotment's edge (e.g., preferably site 6) the following year to allow examination of elk response and the additive effect of later cattle use through August. In the event detrimental effects on sharp-tailed grouse are indicated, further water development that encourages use on sites best suited for sharp-tailed nest and brood functions should be avoided. In this case, concerted efforts would be made to locate alternate water sites that would avoid impacts to sharp-tailed grouse nesting and brood rearing functions, yet provide effective relief to grazing impacts on riparian and associated bottomland sites in the Danforth pasture.

Finding on the Public Land Health Standard for Threatened & Endangered species: Although occupation of the allotment (i.e., Danforth pasture) by northern goshawk and Columbian sharp-tailed grouse have not been verified, current habitat conditions and livestock grazing regimens are considered compatible with their use. Proposed construction of upland livestock waters (intended to improve riparian and channel conditions) may encourage earlier and higher intensity elk and cattle use of suitable sharp-tailed grouse nest habitats and may accelerate and elevate removal of herbaceous ground cover as an important source of cover and forage for nesting and brooding functions. Phased mitigation would allow sufficient time to verify grouse nesting activity, determine elk and livestock response to upland waters, and determine whether actual grazing use levels would be detrimental to grouse habitat utility. Incorporation of this mitigation would allow continued meeting of this Land Health Standard. The No Action alternative would normally be expected to fully satisfy the Standard, but by removing incentives to control noxious weed infestations in the allotment, this option may lead to the progressive deterioration of sensitive species habitats and escalating failures in meeting the Land Health Standards.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands.

Environmental Consequences of the Proposed Action: No hazardous wastes would be generated. Small quantities of solid could be potentially be generated by day to day operations.

Environmental Consequences of the Continuation of Current Management Alternative: No hazardous wastes would be generated. Small quantities of solid could be potentially be generated by day to day operations.

Environmental Consequences of the No Grazing Alternative: None

Mitigation: The permittee shall be required to collect and properly dispose of any solid wastes generated by the proposed action.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: The proposed action is in segment 9 and segment 3c. The table below identifies these reaches as well as segment classifications and designations. For "Use Protected" reaches, the antidegredation review requirements in the Antidegredation Rule are not applicable. For those waters, only the protection specified in each reach will apply. The state has defined these water quality parameters with table values. These standards reflect the ambient water quality and define maximum allowable concentrations for the various water quality parameters. For segment 3c, the anti-degradation rule applies to meaning no further water quality degradation is allowable that would interfere with or become harmful to the designated uses.

Map Code	Drainage Name	Water Quality Stream Segment	Segment Classification	Designation
Basin: White River				
W.CU	Curtis Creek	Lower Colorado River White River Tributaries from Miller Creek to Piceance Creek Segment 9	Aquatic Life 1 Recreation 2 Water supply Agriculture	Use Protected
W.SU	Sulfur Ck			
W.SU.FG	Fourmile Gulch			
W.SUFG.RG	Ryan Gulch			
W.SB	Strawberry Creek			
W.SB.CG	Cabin Gulch			
W.SB.DH	Devils Hole Gulch			
W.SB.TG	Threemile Gulch			
W.LC.EF	East Fork Lion Canyon			
W.LC.WF	West Fork Lion Canyon			
W.AN	Anderson Gulch			
W.FA	Fairfield Gulch			
Basin: Yampa River				
Y.MCGS.HW	Hole in the Wall Gulch	Lower Yampa River Mainstem of Milk Creek, including all tributaries Segment 3c	Aquatic Life 1 Recreation 1b Water supply Agriculture	Anti-Degradation Rule Applies
Y.MCGS.WF	West Fork Good Spring			
Y.MC.WC	Wilson Creek			
Y.MCWC.EF	East Fork Wilson Creek			

Water quality data is not available for the drainages within the allotment. Water quality data is available for the twenty-one springs (refer to the table in the Hydrology, Water Rights sections below) which fall within the boundaries of the allotments. This data represents base flow conditions and indicates the water to be of good quality; typical of small drainages in the White and Yampa River basins.

Environmental Consequences of the Proposed Action: Employment of rest from livestock grazing during the critical growing season on an every other year rotation along with shortened grazing seasons would allow the vegetation condition to improve. Any improvement to vegetation cover would also help to reduce sediment transport, which is the major water quality contaminant for the upland watersheds of the White and Yampa Rivers.

Impacts to hydrology and water quality from development of the small pit reservoirs would be similar to other surface disturbing activities. Some of these impacts would be exposure of soil surface to wind and water erosion and reduced water quality due to erosion of disturbed areas. These impacts would be short term until re-vegetation has occurred. Development of alternative water sources (e.g. ponds) would be favorable to watershed conditions in that it would allow for better distribution of livestock and collect suspended sediment from overland flows. Any range improvement project that improves the vegetation cover and the upland watersheds ability to retain water, would be advantageous to watershed stability and improved water quality of the water coming off of these watersheds.

Environmental Consequences of Continuation of Current Management: Current permitted use does not meet minimum rest requirements established by the White River ROD/RMP. Continual grazing during the growing season without any rest contributes to erosion and water quality problems. Typically, annual runoff is dynamic and dependent aspects we control, such as the amount of vegetation retained for watershed protection and vegetation density. Depleting the vegetation cover needed to protect watersheds from raindrop impact and runoff could cause long-term erosion and water quality problems for these tributaries of the White and Yampa Rivers.

Environmental Consequences of the No Grazing Alternative: By implementing the no grazing alternative, impacts to vegetation from livestock would not occur. With an increase in vegetation cover one would expect an improvement in watershed conditions; thereby improving the overall water quality condition during storm events. This improvement would most likely be a very slow process with minimal results because there are many other factors influencing runoff conditions.

Mitigation: Compliance monitoring for vegetation improvement would help identify if additional actions were needed to comply with the *Clean Water Act*.

Finding on the Public Land Health Standard for water quality: Currently the White River and Yampa River drainages meet the Public Land Health Standard and would continue to do so with the implementation of the proposed action. Many of the upper tributaries which are ephemeral and flow in direct response to storm events do not meet the standards during periods of flow. By improving the cover and distribution of livestock, the watershed cover would begin to improve causing these drainages to move towards meeting the standards.

WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: There are approximately eight and one half miles of riparian zone associated with the Danforth and Devil's Hole pastures, of which approximately five miles are located on BLM lands. The BLM sections of Devil's Hole Gulch, the East Fork of Wilson Creek and the West Fork of Good Spring Creek were assessed for proper functioning condition during

July and August of 2004. All BLM portions of Wilson Creek, Devil's Hole Gulch and about half of Good Spring Creek were rated as functioning at-risk. The other half of Good Spring Creek was rated as non-functioning. Head-cutting, down-cutting, incising, and sedimentation were evident and common. Where found, riparian vegetation including sedges, rushes, and willows is being suppressed and lacks vigor. It is likely that stream bank vegetation would not withstand a high stream flow event. The floodplain and channel characteristics likely are not adequate to dissipate energy associated with a high flow. Elk use the East Fork of Wilson Creek and West Fork of Good Spring Creek riparian areas from early spring throughout the summer and fall. The riparian areas of the Danforth pasture are currently being grazed by cattle yearly from July 1 through September.

Environmental Consequences of the Proposed Action: The proposed action will provide every other year a lengthened period of critical spring growth of riparian dependent vegetation without livestock grazing. Under the proposed action overall stocking rates will be reduced from current levels. Proposed livestock use levels should result in forage utilization at a sustainable level while allowing for improved plant regeneration from year to year. Elk use would not be expected to change. Current stream conditions would be expected to improve slightly under the proposed action due to the shortened season of use, deferred use every other year, lighter stocking rates and to a lesser degree due to the development of additional water sources away from riparian areas.

Environmental Consequences of Continuation of Current Management: The current grazing regime appears to be a contributing factor to stream conditions not meeting the riparian land health standard. Continuing under current management would not meet minimum rest requirements established by the White River ROD/RMP. Elk use would not be expected to change. Continued summer long grazing at currently permitted levels may cause these streams to continue to decline and become entirely non-functional.

Environmental Consequences of the No Grazing Alternative: Under the no grazing alternative, riparian vegetation would not be impacted by livestock. Elk use would not be expected to change. Without livestock grazing, riparian vegetation would likely gain vigor and there would be an increase in ground cover throughout these areas. As streamside vegetation increased, erosion and sedimentation in riparian areas would likely decrease. Condition of most stream banks would likely improve to Proper Functioning Condition over time.

Mitigation: The East Fork of Wilson Creek and the West Fork of Good Spring Creek should be closely monitored in the future. A minimum stubble height of four inches should be maintained on riparian vegetation. Though fencing off portions of the streams or falling trees to limit livestock access are not part of this proposal, they should be options if future riparian conditions should warrant.

Finding on the Public Land Health Standard for riparian systems: Current conditions do not meet the Public Land Health Standard for riparian areas on three out of approximately five miles of riparian systems in this allotment. Riparian plants, while present, do not exhibit high vigor or a diverse age class on all systems. Streambank erosion and sedimentation are excessive in some areas. However, under the proposed action, reduced cattle numbers and deferred rotational summer use are expected to result in improvement of stream condition over time, resulting in achieving, or moving toward achieving the land health standard for riparian systems.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

No Wilderness Areas, WSA's, ACEC's, flood plains, prime and unique farmlands, Wild and Scenic Rivers, or threatened, endangered or sensitive plants exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since none of the alternatives being considered (proposed action, current management, or no-action) would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

SOILS (includes a finding on Standard 1)

Affected Environment: See tables in the Range Management section of this document for a breakdown of soil units and associated ecological sites of BLM and private acres within the allotment. The sites have been broken down by pastures permitted to David Smith Ranches, Inc. and to Gayle R. Crawford. Soils analyzed in this document are presented in the Soil Survey of Rio Blanco County, published by the Natural Resource Conservation Service (NRCS). The Soil Survey delineates individual soil unit polygons and associated ecological sites.

Soils with plant communities rated as a mid seral, late seral, or PNC (Potential Natural Community) have sufficient cover of desirable plant species to produce adequate litter and ground cover to minimize runoff and provide for soil protection (refer to the Vegetation section below). These soils are meeting the Colorado Public Land Health Standard for upland soils.

Soils with plant communities rated as early seral do not have sufficient diversity and/or cover of native plant species to provide effective ground cover to prevent overland flow, runoff, and general soil degradation. These soils exhibit some pedestaling, minor rills, and active gully erosion. Areas with active erosion are typically along major drainages (East Fork Wilson Creek, Good Spring Creek, Three-mile Gulch) that have down-cut in the past. Early seral sites generally occur on Alkaline Slope, Foothill Swale, and PJ Woodlands/Clayey Slopes ecological sites primarily in the western most part of the Lion Canyon pasture. Most early seral sites are not meeting Land Health Standards.

Soils affected by the range improvements (ponds) are listed in the following table by pond number and corresponding soil mapping unit.

Proposed Pond #	Soil #	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
9, 24, 25, 26, 27	10	Blazon, moist-Rentsac Complex	6-65%	Pinyon-Juniper woodland	2-4	Rapid	Moderate to very high	10-20

Proposed Pond #	Soil #	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
17, 18, 19, 22, 23	45	Jerry-Thornburgh-Rhone complex	8-65%	Brushy Loam/Brushy Loam	<2	Medium to rapid	Moderate to high	>60
8, 10, 11, 12, 13, 14, 15, 16, 20, 21	51	Mergel-Redthayne-Dollard complex	8-65%	Loamy Slopes/Loamy Slopes/Clayey Foothills	<2	Medium	High to very high	>60
4, 5, 6	57	Owen Creek-Jerry-Burnette loams	5-35%	Brushy Loam	<2	Rapid	Moderate to high	20-40
1, 2, 28	61	Patent loam	3-8%	Rolling Loam	<2	Medium	Moderate	>60
3, 7	80	Shawa loam	3-8%	Deep Loam	<2	Medium	Moderate to slight	>60

Environmental Consequences of the Proposed Action: Livestock management under the proposed action would allow improved critical growing season rest and re-growth opportunities on mid-seral and some early-seral ecological sites. This would result in increased surface litter accumulation, plant canopy cover, and ground cover. Ground cover and litter are central to the protection and stabilization of soils.

On soils with late-seral or PNC plant communities, little change from the current status is expected with regard to plant cover providing soil protection. Sites already at full potential and meeting land health standards will not be appreciably influenced by the proposed action.

Areas disturbed from range improvements would experience impacts similar to any surface disturbing activity. These impacts would be short term loss of the protective vegetative cover, soil compaction and exposure of these unprotected soils to climatic elements. Increased sedimentation would be expected in the form of runoff from intense weather events. These impacts would be temporary until an herbaceous vegetation cover establishes on embankments and pond spillways.

Environmental Consequences of the Continuation of Current Management Alternative: Livestock management under the 1985 AMP does not provide for any deferred rotational use to allow for critical growing season rest and would likely result in continued negative impacts on early seral ecological sites. It would be highly unlikely that condition of these sites would improve. Negative impacts to soils on mid-seral and late-seral sites could include a shift in species composition, diversity, desired plant cover, and/or reduced production for rangelands. PNC communities would most likely continue to meet health standards and the early-seral communities would not. Impacts from pond construction would not occur.

Environmental Consequences of the No Grazing Alternative: Discontinuation of livestock grazing would result in increases in both perennial plant cover and soil surface litter accumulation. Increased perennial plant cover would probably be most evident on mid-seral ecological sites. Early-seral ecological sites would also benefit to some degree with increased establishment of native perennial plants. Some early-seral areas dominated by cheatgrass would not be expected to change to perennial plant cover because they have crossed a threshold to annual plant domination. Soils associated with PNC ecological sites would continue to meet standards and experience minimal changes in plant species composition and diversity. Impacts from pond construction would not occur.

Mitigation: Continue monitoring key areas to identify trends and changes in plant community cover and composition.

Finding on the Public Land Health Standard for plant and animal communities (partial: see also Wildlife, Aquatic and Wildlife, Terrestrial): Soils of early-seral plant communities generally are not meeting land health standards due to inadequate soil surface protection, caused by a significant component of non-native annual grasses, primarily cheatgrass. As noted in the vegetation section below, historic grazing practices created the situation in which most of the identified early seral plant communities do not meet the Land Health Standard for upland soils. This situation is largely irreversible regardless of the livestock grazing management practices employed now or in the future without intensive management such as human induced disturbance, chemical treatment and subsequent seeding of desirable perennial species to preempt cheatgrass dominance in these communities. Soils of mid-seral, late-seral, and PNC communities make up the bulk of the acreage included in this allotment and currently meet land health standards. Implementation of the proposed action will enhance the ability of the rangelands to meet the land health standards in the future.

VEGETATION (includes a finding on Standard 3)

Affected Environment: The following table lists plant communities and the dominant plant species for the ecological sites or woodland types on the allotment as associated with the proposed action. Forb species, though important to the diversity of a community and comprising up to 25 to 30% of the composition of several of the plant communities listed, are not presented in the following table because they generally are not significant contributors to the general appearance of the community.

Ecological Site / Woodland Type	Plant Community Appearance	Predominant Plant Species in the Plant Community
Alkaline Slopes	Sagebrush/grass Shrubland	Wyoming big sagebrush, winterfat, low rabbitbrush, wheat grasses, Indian rice grass, squirreltail
Brushy Loam	Deciduous Shrub/grass Shrubland	Serviceberry, oakbrush, snowberry, mountain brome, slender wheatgrass, western wheatgrass, Letterman and Columbia needle grasses
Clayey Foothills	Grass/Open Shrub Shrubland	Western wheatgrass, muttongrass, Indian rice grass, squirreltail, June grass, Wyoming big sagebrush, black sagebrush
Deep Clay Loam	Grass/Open Shrub Shrubland	Western wheatgrass, slender wheatgrass, muttongrass, squirreltail, June grass, Letterman and Columbia needle grasses, mountain big sagebrush
Deep Loam	Grassland	Bluebunch wheatgrass, muttongrass, needle-and-thread, western wheatgrass, slender wheatgrass, big sagebrush, serviceberry, snowberry.
Dry Exposure	Grassland	Beardless bluebunch wheatgrass, needle-and-thread, June grass, Indian rice grass, fringed sage, buckwheats
Foothill Swale	Grass/Open Shrub Shrubland	Basin wildrye, western wheatgrass, slender wheatgrass, streambank wheatgrass, Indian rice grass, Nevada bluegrass, basin big sagebrush, fourwing saltbush, rubber rabbitbrush
Loamy Slopes	Mixed Shrub/grass Shrubland	Mountain mahogany, bitterbrush, serviceberry, mountain big sagebrush, beardless bluebunch wheatgrass, western wheatgrass, June grass, Indian rice grass
Mountain Swale	Grass/Open Shrub Shrubland	Basin wildrye, slender wheatgrass, western wheatgrass, Letterman and Columbia needle grasses, sedges, rushes, mountain big sagebrush, rubber rabbitbrush, snowberry,
Rolling Loam	Sagebrush/grass Shrubland	Wyoming big sagebrush, winterfat, low rabbitbrush, horsebrush, bitterbrush, western wheatgrass, Indian rice grass, squirreltail, June

Ecological Site / Woodland Type	Plant Community Appearance	Predominant Plant Species in the Plant Community
		grass, Nevada and Sandberg bluegrass
Stony Foothills	Grass/Open Shrub Shrubland	Beardless bluebunch wheatgrass, western wheatgrass, needle-and-thread, June grass, Indian rice grass, fringed sage, Wyoming big sagebrush, black sage, serviceberry, pinyon and juniper
Pinyon/Juniper	Pinyon/Juniper Woodland	Pinyon pine, Utah juniper, mountain mahogany, bitterbrush, serviceberry, Wyoming big sagebrush, beardless bluebunch wheatgrass, western wheatgrass, June grass, Indian rice grass, muttongrass

The following table shows the seral rating system used by BLM to rate rangeland plant communities in comparison to the potential natural plant community for a particular rangeland site.

ECOLOGICAL SITE SIMILARITY RATINGS	
Seral Rating	**% Similarity to the Potential Natural Plant Community (PNC)**
Potential Natural community (PNC)	76-100% composition of species in the PNC
Late-Seral	51-75% composition of species in the PNC
Mid-Seral	26-50% composition of species in the PNC
Early-Seral	0-25% composition of species in the PNC

The following tables show an estimate of the public land acreage falling within each of the seral ratings for each ecological site on the allotment. These estimates are based upon professional judgments of the Rangeland Management Specialist trained in the use of the rating system. During the 2004 field season nearly all ecological sites were visited for a plant community assessment of the Colorado Public Land Health Standards for the allotment.

Lion Canyon Pasture Ecological Site Similarity Ratings						
ECOLOGICAL SITE	**Total BLM Acres In Pasture**	**PNC**	**Late-Seral**	**Mid-Seral**	**Early-Seral**	**BLM Ac. Classified**
Alkaline Slopes	38	0	0		38	38
Brushy Loam	933	400	300	150	83	933
Clayey Foothills	260	90	75	70	25	260
Deep Loam	211	65	100	30	16	211
Foothill Swale	29	0	0	0	29	29
Rolling Loam	172	20	40	82	30	172
Stony Foothills	255	114	50	70	21	255
P/J Woodland / Clayey Slopes	2436					0
Rock Outcrop	169	0	0	0	0	0
Total	4503	689	565	402	242	1898
% BLM Acres Classified		36	30	21	13	42

As shown for the Lion Canyon pasture 1656 acres or 87% of the classifiable ecological sites in the pasture represent plant communities within the acceptable thresholds for healthy communities and within acceptable limits of a desired plant community as defined in the White River ROD/RMP. Vegetation production and species composition on these sites provide

adequate cover and litter for soil protection and sufficient forage production to meet forage demands and provide for long term sustainability. In 2001 approximately 186 acres of Brushy Loam, Clayey Foothills and Pinyon/Juniper Woodland were included as a fuels treatment project to create a fuel-break above the town of Meeker and to serve as a fuel hazard reduction around several communication facilities in that area. There are 2605 acres, or 58% of the pasture acreage comprised of Pinyon-Juniper woodlands and Rock Outcrop; this acreage is unclassifiable by seral stage. Of the remaining 1898 acres there are 242 acres of early seral sites primarily on the western side of the pasture that have a significant amount of cheatgrass in their composition primarily due to historic and recent annual critical growing season use. While these sites have a majority of desirable perennial species in their composition, they do not meet the Land Health Standards for Rangeland health primarily due to the presence of cheatgrass.

Sulphur Creek Ecological Site Similarity Ratings						
ECOLOGICAL SITE	**Total BLM Acres In Pasture**	**PNC**	**Late-Seral**	**Mid-Seral**	**Early-Seral**	**BLM Ac. Classified**
Brushy Loam	505	220	150	105	30	505
Deep Clay Loam	250	120	80	50	0	250
Deep Loam	35	0	0	35	0	35
Loamy Slopes	1124	300	500	220	104	1124
Mountain Swale	27	0	0	27	0	27
Rolling Loam	31	0	0	31	0	31
Pinyon/Juniper	816					0
Rock Outcrop	9	0	0	0	0	0
Stony Foothills	136	0	20	30	86	136
Total	2933	640	750	498	220	2108
% BLM Acres Classified		30%	36%	24%	10%	72%

As shown for the Sulphur Creek pasture, 1888 acres or 89% of the classifiable ecological sites in the pasture represent plant communities within the acceptable thresholds for healthy communities and within acceptable limits of a desired plant community as defined in the White River ROD/RMP. Vegetation production and species composition on these sites provide adequate cover for soil protection and sufficient forage production to meet forage demands and provide for sustainability. There are 825 acres, or 28% of the pasture acreage comprised of Pinyon-Juniper woodlands and Rock Outcrop; this acreage is unclassifiable by seral stage. Though early seral sites may have significant desirable perennial species in their composition, they do not meet the Colorado Public Land Health Standards for species diversity, soil protection or forage production; however, their condition would not significantly change with or without livestock grazing.

Danforth Pasture Ecological Site Similarity Ratings						
ECOLOGICAL SITE	**Total BLM Acres In Pasture**	**PNC**	**Late-Seral**	**Mid-Seral**	**Early-Seral**	**BLM Ac. Classified**
Brushy Loam	3555	550	1405	800	800	3555
Dry Exposure	172	0	0	72	100	172
Mountain Swale	1	0	0	1	0	1

Danforth Pasture Ecological Site Similarity Ratings						
ECOLOGICAL SITE	**Total BLM Acres In Pasture**	**PNC**	**Late-Seral**	**Mid-Seral**	**Early-Seral**	**BLM Ac. Classified**
Stony Foothills	18	0	0	0	18	18
Total	3746	550	1405	873	918	3746
% BLM Acres Classified		15%	37%	23%	25%	100%

As shown for the Danforth pasture, 2828 acres, or 75% of the classifiable ecological sites in the pasture represent plant communities within the acceptable thresholds for healthy communities and within acceptable limits of a desired plant community as defined in the White River ROD/RMP. Vegetation production and species composition on these sites provide adequate cover and litter for soil protection and sufficient forage production to meet forage demands and provide for long term sustainability. The remaining sites have a presence of desirable perennial species in their composition; however they do not meet the Colorado Public Land Health Standards due to the presence of noxious and invasive plants including leafy spurge, houndstongue and several thistle species.

Devil's Hole Pasture Ecological Site Similarity Ratings						
ECOLOGICAL SITE	**Total BLM Acres In Pasture**	**PNC**	**Late-Seral**	**Mid-Seral**	**Early-Seral**	**BLM Ac. Classified**
Brushy Loam	1860	900	600	300	60	1860
Clayey Foothills	5	0	0	5	0	5
Deep Loam	57	0	20	30	7	57
Loamy Slopes	1321	600	400	250	71	1321
Pinyon/Juniper Woodland	533					0
Rock Outcrop	76	0	0	0	0	0
Rolling Loam	11	0	0	11	0	11
Total	3863	1500	720	596	138	3254
% BLM Acres Classified		46%	22%	18%	5%	76%

As shown for the Devil's Hole pasture, 2816 acres, or 95% of the classifiable ecological sites in the pasture represent plant communities within the acceptable thresholds for healthy communities and within acceptable limits of a desired plant community as defined in the White River ROD/RMP. Vegetation production and species composition on these sites provide adequate cover for soil protection and sufficient forage production to meet forage demands and provide for sustainability. There are 609 acres, or 16% of the pasture acreage comprised of Pinyon-Juniper woodlands and Rock Outcrops; this acreage is unclassifiable by seral stage. Though early seral sites may have significant desirable perennial species in their composition, they do not meet the Colorado Public Land Health Standards for species diversity, soil protection or forage production, primarily due to the presence of noxious and invasive plants including leafy spurge, houndstongue and several thistle species.

Environmental Consequences of the Proposed Action: Under the proposed grazing schedules, livestock use during the critical growing season (defined as 3/20 – 7/11 for the Smith Crawford Allotment) would be reduced by approximately 52 percent when compared to the 1985

AMP grazing schedule of the current management alternative. Combined critical growing season use will average 289 AUMs on even years and 350 AUMs on odd years. It should be noted that the critical growing season varies somewhat year to year depending on climatic conditions. Reduced use during the critical growth period would result in improved plant vigor and community composition. Overall duration of the grazing season would be reduced.

Critical growing season rest and re-growth opportunities would be improved. Under the proposed action there would be an overall reduction of approximately 52 percent in critical growing season used (defined as 3/20-7/11 for the Smith/Crawford allotment) from current permitted levels. Grazing use under the proposed action would incorporate the minimum rest requirement outlined in the White River ROD/RMP. Use would be deferred until July 12 every other year in each pasture. Applying the rest requirements will allow plant communities greater opportunity to complete full growth cycles and resist invasion by undesirable plant species. Livestock use would continue to occur outside the critical growing period every year but at a reduced level throughout the allotment. Development of additional water sources for livestock will result in increased grazing intensity at these sites but overall the ponds should benefit vegetation by improving livestock distribution into areas previously not used by cattle. All grazing will be within calculated rangeland carrying capacity in order to meet Public Land Health Standards.

The proposed action will promote grazing at sustainable levels through reduced total AUM use (reduced grazing intensity), reduced grazing season duration, reduced use during the critical growing season, and application of required rest periods as outlined in the proposed action. Vegetation would have greater opportunity for seed production, replenishment of root reserves, biomass accumulation, and plant propagation. This would lead to improved water holding capability of soils (increased surface litter) and enhance seedling survival necessary to maintain a healthy, reproducing plant community.

The proposed grazing schedule would have a neutral to slightly positive impact on PNC and late seral ecological sites on the allotment, as they are already meeting or exceeding the standards for public land health. The greatest benefit of increased perennial cover and litter accumulation would occur on the mid seral sites because they have not crossed a threshold and have an opportunity for improvement. Early seral sites that have crossed a threshold to cheatgrass domination and areas with decadent sagebrush stands lacking adequate herbaceous understory would probably continue at their current state unless some influencing agent such as fire occurred.

Environmental Consequences of the Continuation of Current Management Alternative: Management under the current grazing schedules would result in higher overall use for longer grazing seasons and with more critical growing season use than under the proposed action. The Danforth pasture especially would continue to receive yearly season long and critical growing season use. Season long use does not allow plants to complete a full life cycle without being grazed repeatedly, particularly in areas near water sources and favored foraging areas. Plant reproductive capabilities, seed production, and desirable ground cover and litter accumulation will likely be less than desired for maintenance and recovery of public land health. There would be greater opportunity for continued cheatgrass invasion and spread of other undesirable plants and noxious weeds. Under this alternative rest requirements outlined in the White River ROD/RMP would not be met.

Overall, negative impacts would result with regard to achieving public land health standards if the current grazing permit were re-issued. Impacts would likely include a downward trend in species composition, diversity, desired plant cover, and/or reduced production for many of the ecological sites, which would occur mostly within mid seral sites and to a lesser degree within the late seral communities. Mid and early seral sites would continue to receive the greatest impact under this situation and likely continue to degrade. The PNC communities would most likely continue to meet public land health standards and the early seral communities would not.

Environmental Consequences of the No Grazing Alternative: Under a no livestock grazing scenario, most areas being presently grazed by cattle would experience a short term increase in both perennial plant cover and soil surface litter. The increase in perennial plant cover is most likely to occur on ecological sites classified as mid seral. On the majority of ecological sites classified as early seral there would most likely be only a minor increase in perennial plant cover.

Mitigation: Continue monitoring key areas to identify trends and changes in plant community cover and composition over time.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial)*:* With the exception of early seral ecological sites where there is considerable presence of cheatgrass, and upland areas identified as being affected by noxious and invasive plants, upland plant communities meet the Standard. Implementation of the proposed grazing plan will enhance the ability of rangelands to meet the Standard in the future.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: The small perennial and intermittent stream systems associated primarily with the permit area's Danforth pasture appear capable of sustaining only simple and seasonal invertebrate-based aquatic habitats. Although evident that beaver occupied some of these headwater drainages in the past, series of small and frequent dams may attest to rather short term occupation. Their exploitation of aspen stocks several decades ago and localized influences by elk and cattle in suppressing aspen regeneration probably aggravates potential reoccupation of these bottomland situations by beaver. Due to low flow volumes and persistence, these systems are incapable of supporting higher order aquatic habitats that involve fisheries.

Environmental Consequences of the Proposed Action: The potential for aquatic habitat development (i.e., reoccupation of small headwater streams by beaver) in the Danforth pasture is strongly constrained by low flow volumes and persistence, previous exploitation by beaver, and current spring and early summer use by large numbers of elk. Continued spring through mid-summer use by elk in these situations may reduce the effectiveness of proposed livestock management efforts (i.e., AUM reductions and the development of additional upland water sources) designed to disperse and moderate livestock use in these drainages. Prescribed monitoring and opportunities to employ further mitigation (e.g., physically deterring channel use) would substantially increase the likelihood of improving channel function and, in the long term, reoccupation of these bottomlands by beaver.

Environmental Consequences of the Continuation of Current Management Alternative: Current management influences the potential expression of aquatic habitats in the Danforth pastures similar to that discussed in the Proposed Action. Without the benefit of AUM reductions or water development projects, the risk of further vegetation and channel degradation that may prolong prospects for beaver reoccupation of these systems would be somewhat higher.

Environmental Consequences of the No Grazing Alternative: Removal of livestock grazing from the higher elevation stream systems in the Danforth pasture would normally be expected to elicit marked increases in the volume, diversity, and effective functioning of riparian vegetation and would manifest rapid rejuvenation of most of the smaller channel systems that bear seasonal or permanent water (but see discussion concerning noxious weed proliferation in the Migratory Bird—No Action consequences section). Although the influences of elk would be muted without the additive influence of cattle, it remains uncertain whether these headwater streams would develop vegetation resources capable of sustaining stable populations of beaver in the short or long term.

Mitigation: None, but see Riparian/Wetland section.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): The Public Land Health Standard cannot be directly applied to simple aquatic habitats in the Danforth pasture, particularly with regard to the objective that requires that animal populations be maintained at viable levels commensurate with habitat potential. Although populations of associated wildlife (e.g., birds) are certainly suppressed in those habitats that lie in the immediate vicinity of drainages bearing small permanent or intermittent flows, the distribution of animals associated with these sites are not confined to these habitats, but instead are distributed widely in the landscape (e.g., MacGillivray's warbler, fox sparrow in mesic aspen and mountain shrub types). The abundance and viability of these populations are not dependent on the proportionately small population-level contributions that these sites offer. The potential for unique aquatic values in this system can only be attributed to beaver-created habitats, which, as discussed in the text, is subject to its own suite of constraints.

Effective and practical means to remedy degraded riparian and channel conditions as nongame wildlife habitat are confounded by the diminutive extent and scale of a Public Land resource embedded within an expansive private land matrix that promotes seasonal concentrations of big game. Deferring livestock use late into or beyond the growing season and applying measures to reduce the intensity of grazing impacts in drainages would normally prompt improving trends in channel condition, but in this situation, localized and heavy spring and summer elk use may continue to stall beneficial channel and vegetation responses. Regardless of reasonable livestock-related management actions taken by the BLM and the permittee, and further efforts to reduce elk populations by the State, these may not be sufficient to alter the site potential or influence the status of the Land Health Standard. Efforts to achieve improving trends in channel function and riparian expression and thereby satisfy the Public Land Health Standard may be reliant instead on this plan's prescribed monitoring and the provisions that allow the installation of physical deterrents to control ungulate access to these sites.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: Public lands in the Devil's Hole and Danforth pastures are used by deer and elk predominantly in late spring through early winter; those in the Sulphur and Lion Canyon pastures are used primarily during the winter and early spring months. The Lion Canyon pasture is largely categorized as severe winter range--a specialized component of winter range that periodically supports virtually all an area's deer under the most severe winter conditions (i.e., extreme cold and heavy snowpack). The aspen communities associated with the Danforth pasture form the hub of a large elk calving complex, habitat considered critical by the Colorado Division of Wildlife (critical habitat is defined as habitat that, once adversely modified, manifests concomitant declines in an area's capacity to support big game population). Elk distribution and seasonal abundance on the permit area is influenced and complicated by 2 factors: its involvement with what is arguably the nation's largest elk herd (the White River herd) and extensive private holdings adjacent and contiguous with the permit area that are managed in a manner that attracts and sustains heavy concentrations of elk from May through December. Over the past several years, the Colorado Division of Wildlife has applied aggressive sport hunting measures to curb the White River's burgeoning elk population. Peaking in 2001, current elk populations (2004) have since been reduced by about 20% and it is anticipated that long-term population objectives will be stabilized at population levels about 10% lower than current. Regardless of herd population objectives, it is likely that the northern half of this allotment, especially the Danforth pasture, will persist in sustaining heavy seasonal elk use. This pasture is contiguous with a large Ranching For Wildlife enterprise and other private ranches whose management is more or less oriented toward commercial recreational hunting. Public hunting pressure on the permit area beginning in mid to late August tends to disperse concentrated elk use from these pastures, but portions of the Danforth and Devil's Hole pastures sustain concentrated elk use from May through mid-August.

Mature components of the allotment's 1,600 acres of aspen woodlands (primarily in the Danforth pasture) are favored nest habitat for red-tailed and the accipitrine hawks. Extensive aerial reconnaissance for nesting raptors in this area during 1980's documented primarily red-tailed and Cooper's hawks in these types. Although the allotment encompasses nearly 1,500 acres of pinyon-juniper woodland, these woodland habitats likely contribute little functional capacity as raptor nest habitat (e.g., sharp-shinned and Cooper's hawk) These outlying and transitional woodlands are notably depauperate in avian abundance and composition compared to what is typically expected in regional pinyon-juniper associated bird communities.

Blue grouse are widely distributed in mountain shrub, aspen, and riparian habitats in the Devil's Hole and Danforth pastures during the spring through late fall months. It is uncertain where these birds winter, but coniferous forest types are available within 16 km east of Devil's Hole Mountain within the White River National Forest and well within the documented range of seasonal movement. Similar in nest chronology and nest habitat selection as sharp-tailed grouse (discussed in Threatened and Endangered Species section above), blue grouse broods tend to gravitate to mesic mountain shrub, aspen, and riparian habitats during the later summer and fall months. Strong herbaceous ground cover expression, as protective cover, forage, and foraging substrate (for invertebrates) through the nest and early brood periods, is considered one of the principal factors in realizing optimal reproductive success.

Nongame mammals and birds using this area are typical and widely distributed in extensive like habitats across the Resource Area and northwest Colorado; there are no narrowly endemic or highly specialized species known to inhabit those lands potentially influenced by this action.

Environmental Consequences of the Proposed Action: Strong reductions (50%) in growing season use and alternate year rest on the allotment's lower elevation pastures would promote the development of higher quality and density of perennial grasses and forbs that would be available as big game forage in spring, fall and winter. Modest reductions in use (10-20%) in the upper elevation pastures and efforts to better distribute use via water development would have no marked influence on big game forage conditions in the short term, but in conjunction with declines in elk populations, may aid in improving residual litters, soil moisture conditions, and persistence of vegetation succulence in the long term. Overall beneficial effect may not be applicable to the aspen/mountain shrub drainage slated for construction of the proposed P-23 livestock water. It is likely that the availability of reliable water in this drainage would expand impacts associated with early elk use and subsequent use by cattle. It is recommended that this project be delayed until a BLM interdisciplinary team and the permittee can more closely examine the site and assess whether water availability can be controlled or whether workable alternatives that would avoid concentrated and prolonged ungulate use of sensitive drainage situations are available.

Providing a number of livestock waters in the Devil's Hole pasture and expanding livestock use to the growing season in alternate years would, even under proposed light stocking rates, substantially increase ground cover removal in proximal drainages and basins. Because the majority of drainages associated with this pasture possess very steep mountain shrub slopes that have limited utility as blue grouse nest and brood habitat, substantial influences are expected to be relegated primarily to the aspen drainage slated for construction of the P-23 livestock water. Regardless of year, growing season use by elk and/or cattle and subsequent late summer and fall use (no opportunity for regrowth) would degrade brood habitat character (i.e., herbaceous cover as a source of forage and cover). This effect lends additional emphasis for more closely examining workable options as discussed above.

Similar to the previous discussion in the Threatened and Endangered Species section, proposed water developments in the Danforth pasture would be expected to increase elk and livestock use levels on up to 500 acres of blue grouse upland nest and early brood range—much of the elk use being synchronous with the grouse nesting season. The trade-offs between modification of upland nest/brood habitat and the need to complement bottomland restoration efforts as blue grouse late brood habitat are stark and lend further impetus to delay pond construction and investigate alternative water sources or drainage protection in the Danforth pasture.

The discussion in the Migratory Bird section applies widely to resident bird and small mammal populations. Especially on the allotment's lower elevation pastures, alternate growing season rest and reductions in growing season use should elicit favorable responses in the vigor, density, and composition of herbaceous ground cover and would be expected to enhance the variety and abundance of breeding non-game populations on 450 acres of early-seral bottomland sites.

Noxious weed infestations in the Danforth and Devil's Hole pastures (involving an estimated 1,056 acres) would continue to threaten the integrity of all vegetation resources as forage and cover resources, but ongoing efforts by the permittees, Rio Blanco County, and BLM would be

expected to remain effective in stalling the spread and influence of these weeds on native communities.

Environmental Consequences of the Continuation of Current Management Alternative: There are no indications of widespread deficiencies in herbaceous or woody forage availability on lower elevation shrublands (lower Sulphur and Lion Canyon pastures) used by big game during the winter and early spring months. Although acreage that has undergone deleterious shifts in herbaceous composition (i.e., ~450 acres not meeting the land health standard) do not presently support the quantity and quality of forage the sites are capable of, forage selection and availability are not at issue since these ranges are largely used and vacated by big game prior to cattle entering the pastures.

Historic and essentially season-long grazing in these lower elevation pastures has depleted understory cover on about 450 acres of bottomland/toeslope and ridgeline habitats (sagebrush and mixed shrub) and prompted increases in annual weeds that normally have limited forage or cover value for nongame birds and mammals. Although populations of small mammals and birds (see Migratory Bird section) associated with these sites are likely suppressed, these habitats do not support unique communities and these species remain well-distributed at appropriate densities across the remainder (about 88%) of available shrublands.

Current grazing use patterns in the Danforth and Devil's Hole pastures normally avoid the reproductive seasons of nongame animals, but heavy dual use of 20 to 40 acres of bottomland riparian sites by cattle and elk has impaired ground cover development such that these sites do not contribute substantially to local nongame populations (see discussion in Migratory Bird section). Mesic shrublands and woodlands in these higher elevation pastures are extensive and contiguous and support those species normally associated with small riparian-bearing channels.

Herbaceous forage growth in these higher elevation pastures continues to support strong populations of summering deer and elk and, with the exceptions of riparian effects, BLM is aware of no pervasive forage competition issues. Cattle have not typically entered these pastures until July and do not compete substantially for available forage stocks during the early young-rearing/lactation periods. Similarly, since livestock-related grazing influences do not begin until most blue grouse broods have hatched, progressive declines in herbaceous ground cover and forages remains light in ridgeline situations (as brood habitat) through at least mid-August when young grouse are highly mobile.

Although limited water availability has resulted in heavier use of bottomland situations and those uplands in close proximity to water, there are no indications of widespread use by big game or cattle of woody forages that influence or interrupt the abundance or continued development of deciduous shrubs or aspen as woody forage or cover. This pattern of use decreases the potential utility of mesic bottomlands as late blue grouse brood range (i.e., acquisition of succulent forbs with some degree of protective cover) and likely decreases annual recruitment to some degree (e.g., energy balance, predation), but there are no indications that it threatens the long-term persistence of this population.

Noxious weed infestations in the Danforth and Devil's Hole pastures (involving an estimated 1,056 acres) threaten the integrity of all vegetation resources as forage and cover resources, but

ongoing efforts by the permittees, Rio Blanco County, and BLM continue to stall the spread and influence of these weeds on native communities.

Environmental Consequences of the No Grazing Alternative: Removing livestock use would substantially increase seasonal herbaceous expression across much of the permit area's early and mid-seral bottomlands, ridgelines, and toeslopes (up to 25% of the allotment) with the notable exception of perennial and intermittent drainages in the Danforth pasture where concentrated elk use would continue to locally suppress riparian and nearly upland ground cover. Although big game forage use would continue, very light cumulative growing season use in the lower elevation pastures and reduced dormant season use in the Danforth and Devil's Hole pastures would significantly increase accumulations of residual ground cover. Non-game mammals and bird populations would be expected to respond to increasing cover and forage bases with minor increases in pinyon-juniper communities and steep mountain shrub slopes. Increases would be most prominent in those areas favored by livestock that are grazed synchronous with the nesting season (about 1,100 shrubland acres in early and mid-seral in the lower elevation pastures) and about 2,500 acres of bottomlands and mildly-sloped terrain throughout the higher elevation pastures.

As discussed in the Migratory Bird section, it is believed that a serious consequence of denying a livestock permit would be the dissolution of incentives for continued weed control by the livestock permittee.

Mitigation: The construction of the proposed P-23 livestock water (T2N R94W section 2 S1/2) should be delayed until a BLM interdisciplinary team and the permittee can more closely examine the site and assess whether water availability can be controlled or whether workable alternatives that would avoid concentrated and prolonged ungulate use of sensitive drainage situations are available.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): The allotment presently meets the Land Health Standard at the landscape level. Degraded inclusions, including higher elevation drainages (Danforth pasture) and lower elevation sagebrush/mixed shrub sites (Lion Canyon, lower Sulphur) that have been subjected to excessive growing season use comprise relatively small and dispersed parcels (less than 5% of total BLM) and do not detract significantly from habitat character or function. Similarly, current noxious weed infestations in the Danforth and Devil's Hole pastures are being treated on an ongoing basis and their influence has not broadly dominated understory character to date.

It is expected that the no-action alternative could dramatically increase herbaceous expression on up to 25 percent of the allotment in the short term, but expected trends in noxious weed proliferation would result in exponential increases in acreage failing to meet the standard in the long term.

The proposed action would expand the extent and distribution of habitats that more fully satisfy the land health standard. Strong reductions in growing season use, alternate years of rest, and wider distribution of cattle, would promote substantive enhancement in the vigor, density, and composition of herbaceous ground cover on up to 20% of the lower Sulphur and Lion Canyon pastures. Modest reductions in dormant season cattle use and efforts to moderate livestock

utilization in the Devil's Hole and Danforth pastures may prompt lesser improvements in herbaceous expression, but would further continued meeting of the standard.

OTHER NON-CRITICAL ELEMENTS: For the following elements, those brought forward for analysis will be formatted as shown above.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation			X
Cadastral Survey	X		
Fire Management	X		
Forest Management			X
Geology and Minerals	X		
Hydrology/Water Rights			X
Law Enforcement		X	
Paleontology	X		
Rangeland Management			X
Realty Authorizations	X		
Recreation			X
Socio-Economics		X	
Visual Resources			X
Wild Horses	X		

ACCESS AND TRANSPORTATION

Affected Environment: The allotment coincides with the Wilson Creek Travel Management Area which limits travel to designated routes within the travel management area. It encompasses generally the entire Danforth Pasture and the northeast side of the Devil's Hole Pasture. The remainder of the allotment is open seasonally from May 1 to September 30 to cross-country vehicle travel.

Environmental Consequences of the Proposed Action: As no proposed improvements will be adjacent from designated routes within the Wilson Creek travel Management Area, it is unlikely that new routes will be created following pond construction machinery route. However, new fences may inhibit legal vehicular travel if fence crosses open designated travel routes.

Environmental Consequences of the Continuation of Current Management Alternative: Impacts from the Current Management alternative are not anticipated.

Environmental Consequences of the No Grazing Alternative: Impacts from the no grazing alternative are not anticipated.

Mitigation: Prior to fence construction, permittee should contact White River Field Office recreation planner to identify potential gate locations if fence will inhibit legal vehicular travel.

FOREST MANAGEMENT

Affected Environment: The following table lists the forest and woodland types on the allotment.

Pasture	Woodland P-J Acres	Aspen Acres (Brushy Loam)
Lion Canyon	2436	933
Sulphur Creek	816	505
Danforth	0	3555
Devil's Hole	533	1860
Total	3785	6853

Within the current land use plan all of the pinyon/juniper woodlands in the Smith/Crawford allotment are classified as non-commercial based on productivity and harvest suitability. These woodlands are not considered in the decadal harvest for the White River Field Office and will not be managed for commercial firewood production. Woodlands in this geographic reference area are available for harvest by private individuals. The majority of harvesting is for fuel wood and fence posts. These woodlands are available for manipulation to enhance other resource values.

Aspen forests are classified as non-commercial based on their limited range and importance to plant community diversity. Limited harvest of firewood and transplants is allowed. Overall aspen communities are decreasing in range in Colorado. The current land use plan identifies aspen as being available for treatment to maintain and enhance these stands and achieve the desired plant community. Any aspen treatments would be analyzed in activity plans. The aspen stands in the Smith/Crawford allotment are mature stands with limited reproduction. Grazing by livestock and wildlife has been shown to decrease or eliminate reproduction. At such time as these stands start to die out, there is expected to be a need to restore the individual stands. This would require treatment of the individual stands followed by fencing to prevent grazing by livestock and wildlife. Fencing would be required until saplings are large enough to survive browsing which is estimated at five years.

Environmental Consequences of the Proposed Action: On this allotment pinyon/juniper stands are relegated to the areas of steep slopes and shallow soils. Livestock grazing in general has not been shown to adversely impact existing pinyon/juniper woodlands. Livestock grazing may play some role in increasing invasion of pinyon/juniper woodlands on sagebrush and mountain shrub sites by decreasing the competitive nature of native plant communities. Under this alternative there is expected to be improved vegetation cover and vigor which would decrease the rate of invasion of pinyon/juniper. Improved distribution related to development of additional upland water sources would also serve to improve overall plant community health. Several wildfires have occurred in the Lion Canyon pasture within the pinyon/juniper community. These fires were seeded for soil stabilization purposes. These areas are currently grass dominated but would return to pinyon/juniper woodland over time. It is expected that mature pinyon/juniper woodland would develop over approximately 200 years.

The proposed grazing program is expected to decrease grazing use within some of the aspen stands. This may allow for limited sprouting of aspen. The impacts of elk on saplings can not be

managed for and may prevent reproduction in these stands. In the event that treatments are required to restore aspen communities, an activity plan and environmental assessment would be prepared. Stands would be inventoried and prioritized for treatment. Treatment is not expected to involve more than 20 acres of aspen at any one time. Treatment of aspen is also expected to allow for development of more productive grass/forb communities under the aspen and increase the competition against noxious weed invasion.

Environmental Consequences of the Continuation of Current Management Alternative: Invasion of pinyon/juniper into sagebrush and mountain shrub associations would be greater than under the proposed action, the result of less competition to seedling establishment.

Livestock grazing impacts combined with elk use would continue to limit reproduction within aspen stands. There remains the opportunity to treat aspen stands as described above, although elk use of fenced areas is expected to be greater because of improved forage quantity and quality of the fenced areas. Aspen reproduction within the fenced areas would be less successful than the preferred management alternative

Environmental Consequences of the No Grazing Alternative: There would be a rapid increase in fine fuel loadings in the sagebrush and mountain shrub types. Fire frequencies would increase significantly as these communities burn more frequently. These fires are expected to carry into the pinyon/juniper woodlands creating stand replacing fires. Over the long term pinyon/juniper woodlands would be relegated to those areas that are fire resistant such as bluffs and areas containing rim-rock. The distribution of pinyon/juniper woodlands would be similar to the distribution before European influence.

Reproduction within aspen stands is expected to increase significantly. The need for fencing of aspen stands would not be required.

Mitigation: None

HYDROLOGY AND WATER RIGHTS

Affected Environment: The majority of the resource area was inventoried for springs in 1983 and 1984. The following table lists springs which were identified in the WRFO Water Atlas for the allotment.

Map Code	Name	Quarter	Sec#	Twp	Rng	Water Right	SC	pH	Q in gpm	Date	Comments
125-07	--	NWSW	6	2N	93W	99CW65	715	6.9	2.47	9/21/83	Perennial
125-08	Decreed to pvt. Party - Kourlis Ranch Spring # 43	NENE	6	2N	93W	99CW65	1006	6.2	13.33	9/29/83	Perennial
125-12	--	SENW	6	2N	93W	99CW65	846	7.5	1.79	9/21/83	Perennial
125-13	Good Spring	NWSW	6	2N	93W	80CW197	456	7.5	0.27	9/28/83	F/N/Perennial
125-14	--	SWSE	30	3N	93W	99CW65	1502	8.1	3.7	9/28/83	Perennial
125-01	--	NESE	6	2N	93W	81CW256	579	7.8	0.13	9/29/83	G/N/Perennial
125-02	--	NESE	6	2N	93W	81CW256	790	6.3	0.38	9/29/83	G/N/Perennial
125-05	Secret Spring	NESE	6	2N	93W	83CW128	1117	8.4	0.24	9/29/83	Perennial

Map Code	Name	Quarter	Sec#	Twp	Rng	Water Right	SC	pH	Q in gpm	Date	Comments
125-06	Decreed to pvt. Party - Kourlis Ranch Spring # 46	SESE	6	2N	93W	81CW256	743	7.8	0.83	9/29/83	G/N/Perennial
125-03	--	NENE	7	2N	93W	81CW256	1063	7.6	0.12	9/29/83	G/N/Perennial
124-16	Quaker Basin Spring	SESE	25	3N	94W	80CW199	549	6.9	0.23	9/24/81	G/N/Perennial
124-15	Devils Note Mountain	NW SE	35	3N	94W	85CW46	3584	7.2	0.1	7/2/81	A/Perennial
124-17	Stan & 3o Springs	SWNE	36	3N	94W	80CW195	470	7.1	0.49	9/24/81	G/N/Perennial
124-30	E. Wilson Crk Spg	SWNW	1	2N	94W	80CW200	1345	7.6	1.35	9/20/83	G/N/Perennial
124-31	--	NESW	1	2N	94W	N/A				9/21/83	Seasonal
124-32	--	NESE	1	2N	94W	85CW130	913	7.4	1.13	9/21/83	Perennial
124-19	Devils Hole Gulch	NENE	11	2N	94W	82CW362	1349	6.1	0.13	9/27/83	F/S/Perennial
124-47	--	SWNW	31	3N	93W	99CW65	501	9.7	0.23	10/5/83	Perennial
124-34	--	SESW	36	3N	94W	99CW65	775	6	0.56	9/20/83	Perennial
124-35	--	SESW	36	3N	94W	85CW133	888	7.3	2.5	9/20/83	Perennial
124-42	--	SESW	36	3N	94W	85CW133	1151	8	1.15	9/20/83	Perennial
125-04	--	SESE	6	2N	94W	N/A	-	-	-	-	Seasonal
124-18	--	SWNW	1	2N	94W	80CW200	-	-	0.01	-	Seasonal
143-05	--	NWSW	4	1N	94W	85CW470	-	-	0.01	-	Perennial
143-10	--	NWSW	4	1N	94W	85CW470	-	-	0.01	-	Perennial

Currently there is only one identified spring that does not have water rights filed on it. This spring has been identified as being seasonal in nature. Typically water rights are not granted on springs that do not maintain a perennial flow.

Environmental Consequences of the Proposed Action: Many of these springs are not developed and appear as small riparian areas in ephemeral drainages. Providing rest from livestock grazing during the critical growing season by implementing a deferred rotational grazing system in combination with private lands in a two year rotational system would be helpful in maintaining the obligate vegetation types that are necessary to anchor streambanks and reduce sediment production. Furthermore, development and use of these springs and water rights will enable the BLM to retain its water rights for continued multiple use management. Though most seeps are in the Danforth pasture and the majority of the proposed ponds are in the Devil's Hole pasture, construction of ponds on upland sites would result in slightly reduced trampling impacts at the areas surrounding the small springs.

Environmental Consequences of the Continuation of Current Management Alternative: Impacts from this alternative are expected to be the same as the proposed action alternative.

Environmental Consequences of the No Grazing Alternative: The State of Colorado requires holders of state water to use those water rights in order to retain them. A beneficial use identified by the BLM for retention of these water rights is livestock grazing. The no grazing alternative would not provide the beneficial use needed to ensure the BLM is adhering to their "use it or lose it" doctrine.

Mitigation: Spring developments must be maintained and all non-functional items (e.g. old water troughs, pipes, fence, etc…) must be removed and properly disposed of by the permit holders. Furthermore, spring monitoring must continue to evaluate the functionality of developments and assess water quality at spring sources.

RANGELAND MANAGEMENT

Affected Environment: The following Acres & AUM Breakdown is a summary of the *Forage Production* analysis tables further below, which are broken down by individual soil units and Acres/AUM for each pasture. The *Acres and AUM Breakdown* table shows an estimated livestock carrying capacity (AUMs) by land ownership for each pasture in the allotment. The percent Public Land (%PL) is the percentage of AUMs generated on BLM lands in relation to total AUMs and it too was re-calculated for all pastures in the allotment.

Acres & AUM Breakdown for Smith/Crawford Allotment Livestock Grazing Capacity									
Pastures	**BLM AUMs**	**Pvt AUMs (Smith)**	**Pvt AUMs (Rogers)**	**Total AUMs**	**% PL**	**BLM Acres**	**Pvt Acres (Smith)**	**Pvt Acres (Rogers)**	**Total Acres**
Lion Canyon	357	7	30	**394**	**90%**	4503	75	306	**4884**
Sulphur Creek	368	342	79	**789**	**47%**	2933	2520	630	**6083**
Danforth Pasture	455	71	65	**591**	**77%**	3746	585	518	**4849**
Devil's Hole	494	0	352	**846**	**59%**	3863	1	2693	**6557**
Totals:	**1587**	**420**	**526**	**2533**	**68%**	**15045**	**3181**	**4147**	**22373**

Information from the Forage Production tables below show estimated carrying capacity (AUMs) of livestock for all pastures in the allotment. The tables are broken down by soil type by acres, acres per AUM and the number of AUMs produced on that ecological site. The tables were used in part to determine the available forage contribution produced on public land (%PL). Also based in part on these tables, the grazing permittees and BLM worked together to develop *Grazing Applications for Permit Renewal*. Cattle distribution factors including distance between water sources and foraging areas, topography, and herding practices make the actual available AUMs lower than the estimated AUMs. For these reasons the AUMs in the grazing application are lower than the estimated grazing capacity (AUMs). Current rangeland conditions including reduced productivity due to noxious weed infestations, condition of range improvements, and public land health standards were also taken into consideration when developing grazing schedules at these more moderate stocking rates.

Forage Production analysis on all lands within the Smith Crawford Allotment in this Permit Renewal

Lion Canyon Pasture BLM only				
Soil Unit Name	**Ecological Site**	**Acres**	**Acres/AUM**	**AUMs**
Abor Clay Loam,5-30%slopes	Clayey Foothills	260	12	22
Absher loam,3-8%slopes	Alkaline Slopes	23	14	2
Blazon, moist-Rentsac Complex,6-65%slopes	Pinyon-Juniper woodland	2329	20	117
Forelle loam, 3-8%slopes	Rolling Loam	3	6	1
Forelle loam, 8-15%slopes	Rolling Loam	6	6	1
Havre loam,0-4%slopes	Foothill Swale	29	8	4
Jerry-Thornburgh-Rhone complex,8-65%slopes	Brushy Loam/Brushy Loam	933	8	117

Lion Canyon Pasture BLM only				
Soil Unit Name	**Ecological Site**	**Acres**	**Acres/AUM**	**AUMs**
Patent loam,15-25%slopes	Rolling Loam	0	6	0
Patent loam,3-8%slopes	Rolling Loam	146	6	24
Patent loam,8-15%slopes	Rolling Loam	17	6	3
Rentsac-Moyerson-RockOutcrop,complex,5-65%slps	PJ Woodlands/Clayey Slopes	107	10	11
Rock Outcrop	None	169	0	0
Shawa loam,3-8%slopes	Deep Loam	134	5	27
Tisworth fine sandy loam,0-5%slopes	Alkaline Slopes	15	14	1
Torriorthents-Rock Outcrop, complex,15-90%slopes	Stoney Foothills	255	18	14
Zoltay clay loam, 8-15%slope	Deep Loam	77	5	16
	Totals	**4503**		**357**

Lion Canyon Pasture BLM & Private combined total				
Soil Unit Name	**Ecological Site**	**Acres**	**Acres/AUM**	**AUMs**
Abor Clay Loam,5-30%slopes	Clayey Foothills	260	12	22
Absher loam,3-8%slopes	Alkaline Slopes	188	14	13
Blazon, moist-Rentsac Complex,6-65%slopes	Pinyon-Juniper woodland	2330	20	117
Forelle loam, 3-8%slopes	Rolling Loam	24	6	4
Forelle loam, 8-15%slopes	Rolling Loam	6	6	1
Havre loam,0-4%slopes	Foothill Swale	68	8	8
Jerry-Thornburgh-Rhone complex,8-65%slopes	Brushy Loam/Brushy Loam	936	8	117
Patent loam,15-25%slopes	Rolling Loam	0	6	0
Patent loam,3-8%slopes	Rolling Loam	174	6	29
Patent loam,8-15%slopes	Rolling Loam	40	6	7
Rentsac-Moyerson-RockOutcrop,complex,5-65%slps	PJ Woodlands/Clayey Slopes	159	10	16
Rock Outcrop	None	169	0	0
Shawa loam,3-8%slopes	Deep Loam	134	5	27
Tisworth fine sandy loam,0-5%slopes	Alkaline Slopes	15	14	1
Torriorthents-Rock Outcrop, complex,15-90%slopes	Stoney Foothills	301	18	17
Zoltay clay loam, 8-15%slope	Deep Loam	78	5	16
Zoltay clay loam, 3-8%slope	Deep Loam	3	5	1
	Totals	**4884**		**394**

Sulphur Creek Pasture Soils/Ecological Sites of BLM lands				
Soil Unit	**Ecological Site**	**Acres**	**Acres/ AUM**	**AUMs**
Blazon, moist-Rentsac Complex,6-65%slopes	Pinyon-Juniper woodland	816	20	41
Jerry-Thornburgh-Rhone complex,8-65%slopes	Brushy Loam/Brushy Loam	455	8	57
Kobar silty clay cloam,3-8%slopes	Deep Clay Loam	249	5	50
Kobar silty clay loam,8-15%slopes	Deep Clay Loam	0	5	0
Mergel-Redthayne-Dollard complex,8-65%slopes	Loamy Slopes/Loamy Slopes/Clayey Foothills	1124	6	187
Owen Creek-Jerry-Burnette loams,5-35%slopes	Brushy Loam	1	8	0
Patent loam,3-8%slopes	Rolling Loam	24	6	4
Patent loam,8-15%slopes	Rolling Loam	8	6	1

Sulphur Creek Pasture Soils/Ecological Sites of BLM lands				
Soil Unit	**Ecological Site**	**Acres**	**Acres/ AUM**	**AUMs**
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Woodland/Aspen Woodland	47	8	6
Rock Outcrop	None	9	0	0
Shawa loam,3-8%slopes	Deep Loam	35	5	7
Silas loam,0-8%slopes	Mountain Swale	27	4	7
Torriorthents-Rock Outcrop, complex,15-90%slopes	Stoney Foothills	137	18	8
	Totals	**2933**		**368**

Sulphur Creek Pasture BLM & Private combined total				
Soil Unit	**Ecological Site**	**Acres**	**Acres/AUM**	**AUMs**
Blazon, moist-Rentsac Complex,6-65%slopes	Pinyon-Juniper woodland	1075	20	54
Jerry-Thornburgh-Rhone complex,8-65%slopes	Brushy Loam/Brushy Loam	2537	8	317
Kobar silty clay cloam,3-8%slopes	Deep Clay Loam	294	5	59
Kobar silty clay loam,8-15%slopes	Deep Clay Loam	0	5	0
Mergel-Redthayne-Dollard complex,8-65%slopes	Loamy Slopes/Loamy Slopes/Clayey Foothills	1389	6	232
Owen Creek-Jerry-Burnette loams,5-35%slopes	Brushy Loam	1	8	0
Patent loam,3-8%slopes	Rolling Loam	24	6	4
Patent loam,3-8%slopes	Rolling Loam (cultivated pasture)	5	4	1
Patent loam,8-15%slopes	Rolling Loam	8	6	1
Patent loam,8-15%slopes	Rolling Loam (cultivated pasture)	44	4	11
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Woodland/Aspen Woodland	289	8	36
Rock Outcrop	None	9	0	0
Shawa loam,3-8%slopes	Deep Loam	1	5	0
Shawa loam,3-8%slopes	Deep Loam	14	5	3
Shawa loam,3-8%slopes	Deep Loam	20	5	4
Shawa loam,3-8%slopes	Deep Loam (Cultivated pasture)	8	4	2
Shawa loam,3-8%slopes	Deep Loam (Cultivated pasture)	91	4	23
Shawa loam,3-8%slopes	Deep Loam (Cultivated pasture)	76	4	19
Silas loam,0-8%slopes	Mountain Swale	61	4	15
Torriorthents-RockOutcrop, complex,15-90%slopes	Stoney Foothills	137	18	8
	Totals	**6083**		**789**

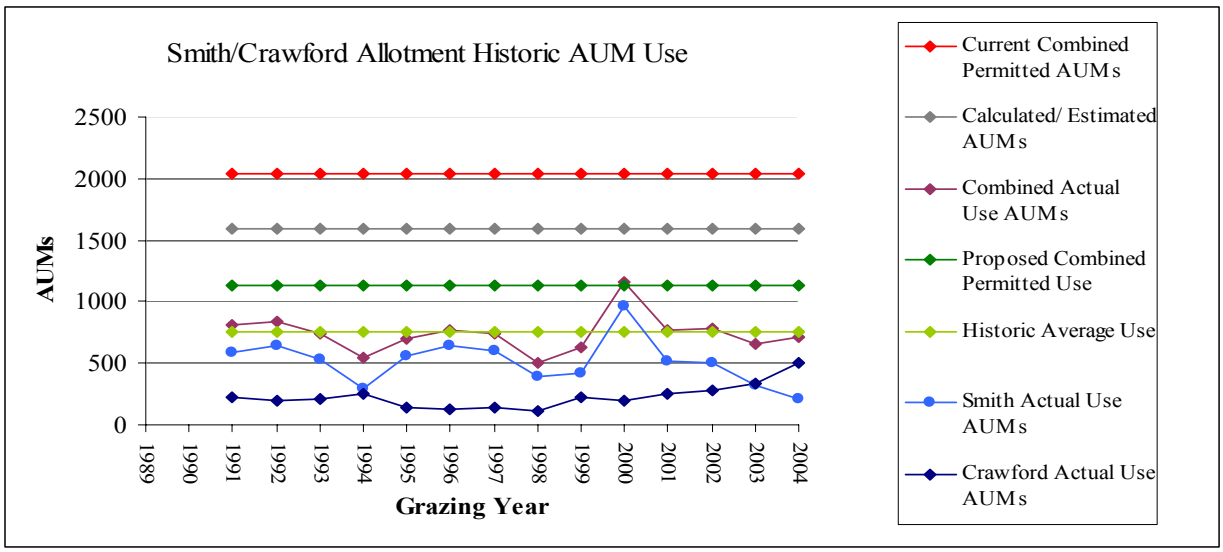
Danforth Pasture Soils/Ecological Sites of BLM lands				
Soil Unit	**Ecological Site**	**Acres**	**Acres/AUM**	**AUMs**
Jerry-Thornburgh-Rhone complex,8-65%slopes	Brushy Loam/Brushy Loam	91	8	11
Owen Creek-Jerry-Burnette loams,5-35%slopes	Brushy Loam	2095	8	262
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Woodland/Aspen Woodland	1369	8	171
Silas loam,0-8%slopes	Mountain Swale	1	4	0
Torriorthents-Rock Outcrop, complex,15-90%slopes	Stoney Foothills	18	18	1
Waybe-Vandamore Variant-RO,complex,5-30%slopes	Dry Exposure	173	18	10
	Totals	**3746**		**455**

Danforth Pasture BLM & Private combined total				
Soil Unit	**Ecological Site**	**Acres**	**Acres/AUM**	**AUMs**
Jerry-Thornburgh-Rhone complex,8-65%slopes	Brushy Loam/Brushy Loam	119	8	15
Owen Creek-Jerry-Burnette loams,5-35%slopes	Brushy Loam	2625	8	328
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Woodland/Aspen Woodland	1788	8	224
Silas loam,0-8%slopes	Mountain Swale	37	4	9
Torriorthents-Rock Outcrop, complex,15-90%slopes	Stoney Foothills	29	18	2
Waybe-Vandamore Variant-RO,complex,5-30%slopes	Dry Exposure	251	18	14
	Totals	**4849**		**591**

Devil's Hole Pasture Soils/Ecological Sites of BLM lands				
Soil Unit	**Ecological Site**	**Acres**	**Acres/AUM**	**AUMs**
Abor Clay Loam,5-30%slopes	Clayey Foothills	5	12	0
Blazon, moist-Rentsac Complex,6-65%slopes	Pinyon-Juniper woodland	518	20	26
Jerry-Thornburgh-Rhone complex,8-65%slopes	Brushy Loam/Brushy Loam	1699	8	212
Mergel-Redthayne-Dollard complex,8-65%slopes	Loamy Slopes/Loamy Slopes/Clayey Foothills	1321	6	220
Patent loam,3-8%slopes	Rolling Loam	11	6	2
Rentsac-Moyerson-RockOutcrop,complex,5-65%slps	PJ Woodlands/Clayey Slopes	14	10	1
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Woodland/Aspen Woodland	162	8	20
Rock Outcrop	None	76	0	0
Shawa loam,3-8%slopes	Deep Loam	57	5	11
	Totals	**3863**		**494**

Devil's Hole Pasture BLM & Private combined total				
Soil Unit	**Ecological Site**	**Acres**	**Acres /AUM**	**AUMs**
Abor Clay Loam,5-30%slopes	Clayey Foothills	108	12	9
Blazon, moist-Rentsac Complex,6-65%slopes	Pinyon-Juniper woodland	833	20	42
Jerry-Thornburgh-Rhone complex,8-65%slopes	Brushy Loam/Brushy Loam	2921	8	365
Mergel-Redthayne-Dollard complex,8-65%slopes	Loamy Slopes/Loamy Slopes/Clayey Foothills	1810	6	302
Patent loam,3-8%slopes	Rolling Loam	28	6	5
Rentsac-Moyerson-RockOutcrop,complex,5-65%slps	PJ Woodlands/Clayey Slopes	32	10	3
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Woodland/Aspen Woodland	166	8	21
Rock Outcrop	None	247	0	0
Shawa loam,3-8%slopes	Deep Loam (cultivated pastures)	355	4	89
Shawa loam,3-8%slopes	Deep Loam	57	5	11
	Totals	**6557**		**846**

The table below shows permitted AUMs, estimated AUMs, proposed grazing schedule AUMs and past years' annual actual use AUMs (based on reports submitted by each of the permittees at the end of each grazing season).



Environmental Consequences of the Proposed Action: Refer to the Vegetation and Soils sections of this document for analysis of rangeland vegetation and soils impacts. These sections detail how implementation of the grazing plan presented in the proposed action will provide improved opportunities for plant rest and re-growth and result in a reduction in AUMs used, especially during the critical growing season. Overall, grazing use during the critical growing season would be reduced by an average of 52 percent from currently permitted levels. The proposed grazing schedule would provide better opportunities for plants to complete full life cycles every other year on all parts of the allotment. Vegetation would have greater opportunity for seed production, plant propagation, replenishment of root reserves, and biomass accumulation. Shorter grazing periods will also reduce repeated cattle grazing on individual forage plants. Completion of proposed range improvement projects will improve livestock distribution, benefiting forage plants by improving distribution resulting in reduced grazing pressure. Implementation of the proposed action will further enhance the ability of the rangelands to meet Public Land Health Standards in the future. The livestock grazing permittees (David Smith, and Gayle and Ken Rogers) were instrumental in development of the proposed action so implementation of this grazing schedule is not expected to impair their livestock management operations.

Environmental Consequences of the Continuation of the Current Management Alternative: As shown from the Historic AUM Use table above, average grazing levels on the Smith/Crawford allotment over the last fourteen years have been well below permitted levels. Grazing below permitted levels has helped maintain range condition through a prolonged period of below average precipitation. However, the 1985 AMP does not meet the minimum rest requirements established by the White River ROD/RMP. If grazing at currently permitted levels and seasons of use occurred (yearly critical growing season use, continuous season long grazing), some ecological sites will be prevented from meeting the Standards for Public Land Health and result in continued conditions favoring noxious and invasive plant species, especially in the Danforth pasture.

Environmental Consequences of the No Grazing Alternative: Under this alternative, David Smith Ranches Inc., and the Crawford Ranch would not be authorized to graze BLM lands within the Smith Crawford allotment. Private lands throughout the allotment produce an average of only 32 percent of the forage and it is not feasible to fence these lands separate from BLM lands. Without availability of public land forage, it is likely that neither ranch would be a viable cattle operation. Condition of riparian areas would likely improve, however maintenance of developed springs, which is currently required of the permittees, would likely lapse resulting in a loss of public investment in these improvements.

Mitigation: none

RECREATION

Affected Environment: The proposed action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

The project areas most resemble a Recreation Opportunity Spectrum (ROS) class of Semi-Primitive Motorized (SPM). SPM recreation setting is typically characterized by a natural appearing environment with few administrative controls, low interaction between users but evidence of other users may be present. SPM recreation experience is characterized by a high probability of isolation from the sights and sounds of humans that offers an environment that offers challenge and risk.

Environmental Consequences of the Proposed Action: Impacts to recreation from the proposed action are not anticipated.

Environmental Consequences of the Continuation of Current Management Alternative: Impacts to recreation from continuing current management are not anticipated.

Environmental Consequences of the No Grazing Alternative: Impacts to recreation from the no-grazing alternative are not anticipated.

Mitigation: None.

VISUAL RESOURCES

Affected Environment: The proposed action is within VRM class II and III areas. The objective of this class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. The objective of class II is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not

attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Environmental Consequences of the Proposed Action: The proposed action is small in scale relative to the surrounding landscape; therefore, any modifications will be unseen to the casual observer, and VRM II and III objectives will be met. Furthermore, most disturbed vegetation related to pond construction will return making the action virtually unnoticeable to the casual observer within a period of a few years.

Environmental Consequences of the Continuation of Current Management Alternative: VRM objectives will continue to be maintained.

Environmental Consequences of the No Grazing Alternative: VRM objectives will continue to be maintained.

Mitigation: None.

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts from the proposed action would not exceed those discussed in the White River Resource Area PRMP/FEIS.

PERSONS / AGENCIES CONSULTED: A Public Notice of the NEPA action is posted on the White River Field Office Internet website at the Colorado BLM Home Page asking for public input on lease renewals and the assessment of public land health standards within the White River Field Office area. Local notification is published in the Rio Blanco Herald Times newspaper located here in Meeker, Colorado on a monthly basis. Individual letters are sent to the lessees/permittees informing them that their permit is up for renewal and request any information they want included in or taken into consideration during the renewal process.

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Caroline Hollowed	Planning & Environmental Coordinator	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Gabrielle Elliott	Archaeologist	Cultural Resources Paleontological Resources
Mary Taylor	Rangeland Management Specialist	Invasive, Non-Native Species
Ed Hollowed	Wildlife Biologist	Migratory Birds
Ed Hollowed	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Bo Brown	Hazmat Collateral	Wastes, Hazardous or Solid
Caroline Hollowed	Planning & Environmental Coordinator	Water Quality, Surface and Ground Hydrology and Water Rights
Mary Taylor	Rangeland Management Specialist	Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness
Mary Taylor	Rangeland Management Specialist	Soils
Mary Taylor	Rangeland Management Specialist	Vegetation
Ed Hollowed	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Mary Taylor	Rangeland Management Specialist	Rangeland Management
Penny Brown	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Chris Ham	Outdoor Recreation Planner	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

Finding of No Significant Impact/Decision Record (FONSI/DR)

CO-110-2005-011-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION/RATIONALE: It is my decision to implement the proposed action; to renew the grazing permits for David Smith Ranches, Inc., (0501479) and Gayle R. Rogers (Crawford) (0501480) for a period of ten years, approve the allotment management plan, and approve the proposed range improvements for the Smith/Crawford grazing allotment as described in the proposed action, with the addition of the mitigation listed below.

The grazing rest periods are consistent with the minimum rest periods developed in the White River ROD/RMP and are also consistent with the Livestock Grazing Management Guidelines developed for the Colorado Public Land Standards for Rangeland Health. The proposed action offers the best option for attaining Public Land Health Standards and achieving the vegetation management objectives presented in the White River ROD/RMP. The range improvements proposed are necessary to properly implement the grazing system and will have a net positive impact on the environment in the long term.

MITIGATION MEASURES: 1.The building of proposed ponds P-1 and P-2 (see attached map, fig. 2) will be deferred until such time as further excavation can take place and remapping, resurveying and reevaluation can provide adequate information on which to make determinations as the value of the Archaeological sites in Lion Canyon. This deferment will deter cows from creating further disturbance of the area.

2. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are

correct and that mitigation is appropriate

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

3. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

4. In compliance with Standards for Rangeland Health through managed grazing, mitigation to minimize the spread of cheatgrass would include aggressive rehabilitation including aerial and drill seeding with adapted species immediately following wildfire events, and aggressive re-vegetation of all earthen disturbances. To limit the spread and establishment of noxious and invasive species, all earthen disturbances will be re-vegetated with adapted grass species.

5. Proposed livestock ponds 4, 5, and 6 should not be installed until detailed utilization studies can be applied through a grazing year on potential sharp-tailed grouse nest habitats in section 30 (T3N, R93W). This interval would also allow confirmation of whether grouse use these habitats. Subsequent water construction should be limited to a single site on the allotment's edge (e.g., preferably site 6) the following year to allow examination of elk response and the additive effect of later cattle use through August. In the event detrimental effects on sharp-tailed grouse are indicated, further water development that encourages use on sites best suited for sharp-tailed nest and brood functions should be avoided. In this case, concerted efforts would be made to locate alternate water sites that would avoid impacts to sharp-tailed grouse nesting and brood rearing functions, yet provide effective relief to grazing impacts on riparian and associated bottomland sites in the Danforth pasture.

6. The permittee shall be required to collect and properly dispose of any solid wastes generated by the proposed action.

7. Compliance monitoring for vegetation improvement would help identify if additional actions were needed to comply with the *Clean Water Act*.

8. The East Fork of Wilson Creek and the West Fork of Good Spring Creek should be closely monitored in the future. A minimum stubble height of four inches should be maintained on riparian vegetation. Though fencing off portions of the streams or falling trees to limit livestock access are not part of this proposal, they should be options if future riparian conditions should warrant.

9. Continue monitoring key areas to identify trends and changes in plant community cover and composition.

11. The construction of the proposed P-23 livestock water (T2N R94W section 2 S1/2) should be delayed until a BLM interdisciplinary team and the permittee can more closely examine the site and assess whether water availability can be controlled or whether workable alternatives that would avoid concentrated and prolonged ungulate use of sensitive drainage situations are available.

12. Prior to fence construction, permittee should contact White River Field Office recreation planner to identify potential gate locations if fence will inhibit legal vehicular travel.

13. Spring developments must be maintained and all non-functional items (e.g. old water troughs, pipes, fence, etc…) must be removed and properly disposed of by the permit holder. Furthermore, spring monitoring must continue to evaluate the functionality of developments and assess water quality at spring sources.

NAME OF PREPARER: Mary Taylor

NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL: Kent E. Walter
Field Manager

DATE SIGNED: 03/10/06

ATTACHMENTS: Fig 1 Location of Proposed Range Improvements
Fig 2 Lion Canyon Archaeological Sites
Location map of the Proposed Action

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Figure 1 Location of Proposed Range Improvements

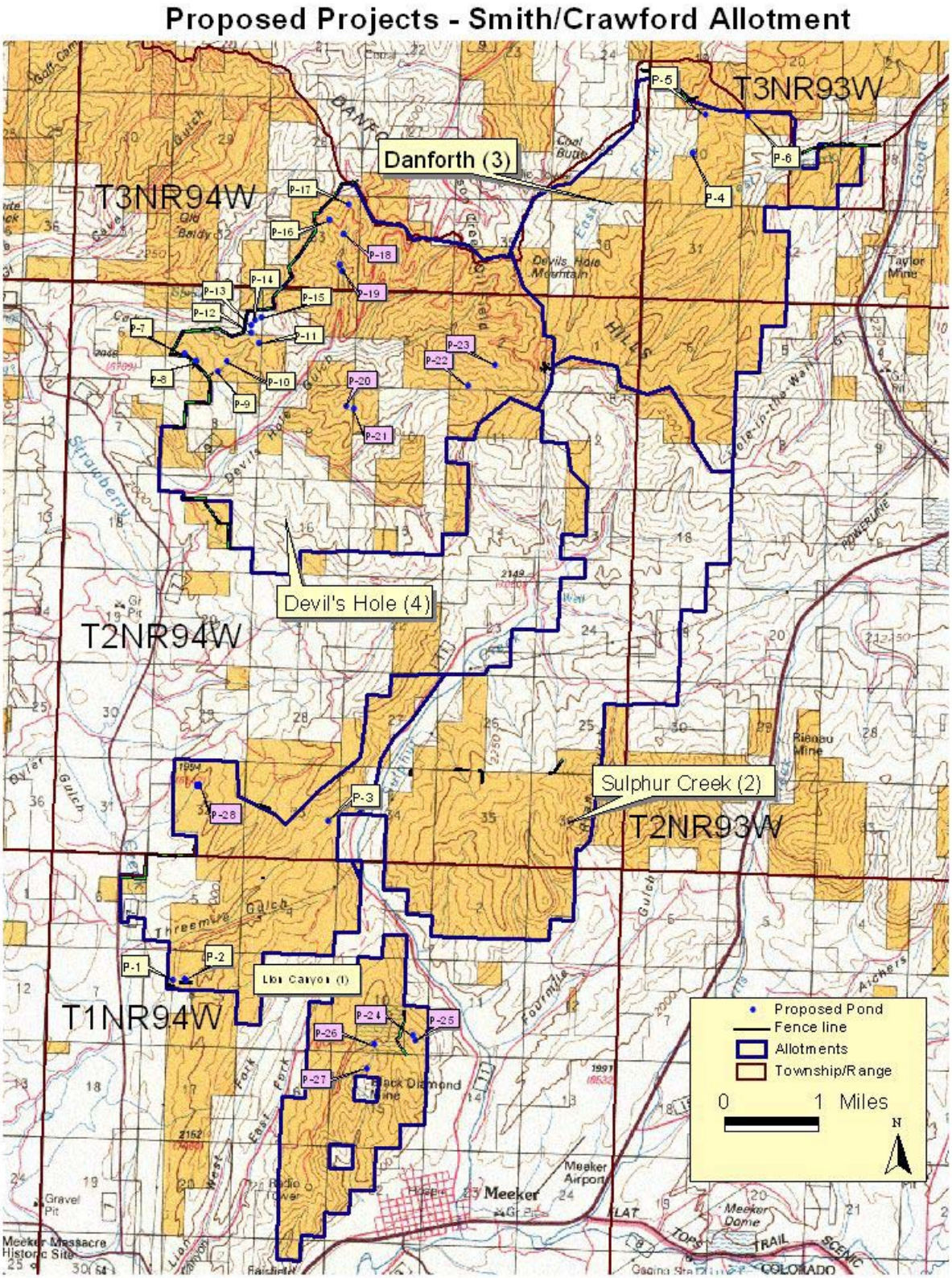
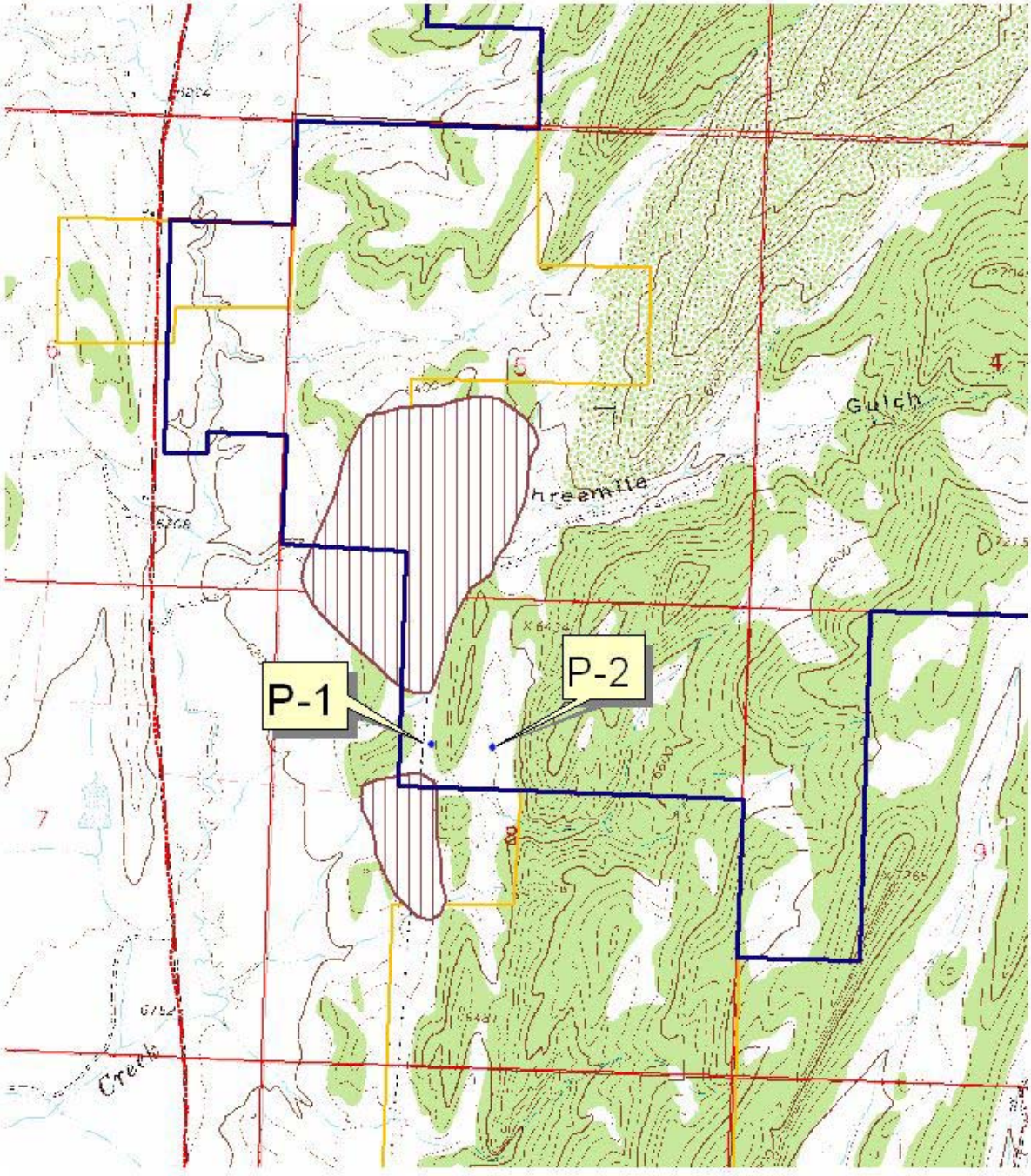
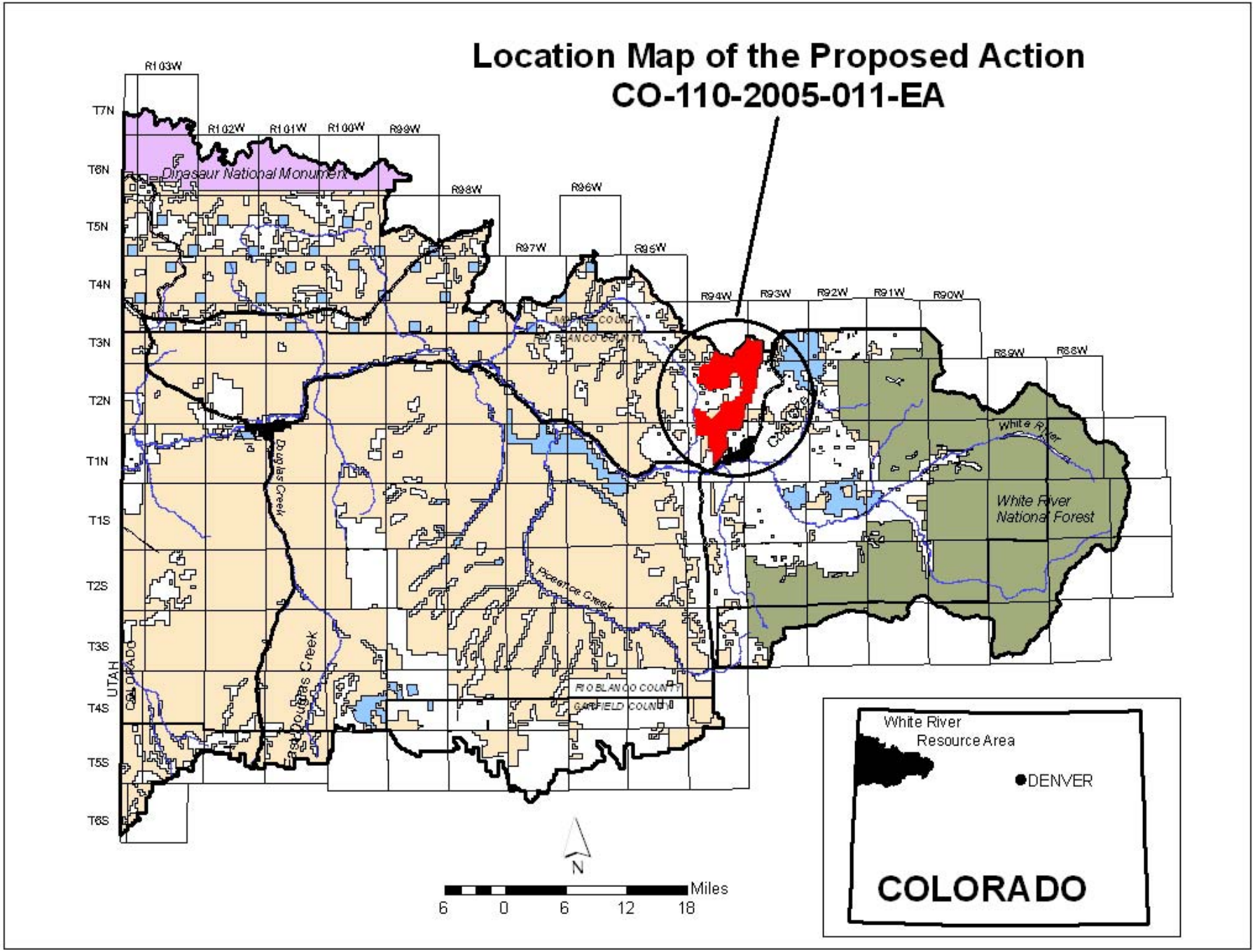


Figure 2: Lion Canyon Arch Sites
Township 1 N Range 94 W Sections 5 & 8




Location Map of the Proposed Action
CO-110-2005-011-EA
R103W
R102W
R101W
R100W
R99W
R98W
R97W
R96W
R95W
R94W
R93W
R92W
R91W
R90W
R89W
R88W
T7N
T6N
T5N
T4N
T3N
T2N
T1N
T1S
T2S
T3S
T4S
T5S
T6S
Dinosaur National Monument
RIO BLANCO COUNTY
GARFIELD COUNTY
Douglas Creek
Piceance Creek
White River
White River National Forest
UTAH
COLORADO
N
Miles
6 0 6 12 18
White River Resource Area
DENVER
COLORADO