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**Bureau of Land Management**



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**SMITHSFORK ALLOTMENT  
MANAGEMENT PLAN**



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**SMITHSFORK ALLOTMENT  
ALLOTMENT MANAGEMENT PLAN  
ALLOTMENT NO. 21005**

**PHYSICAL DESCRIPTION OF ALLOTMENT**

The Smithsfork Allotment is a 90,937-acre cattle and sheep allotment located north and east of Cokeville, Wyoming. The allotment is composed of approximately 64,725 acres of federal land; 14,627 acres of private land; and 11,585 acres of State land. The lands in the allotment have been used for livestock grazing since before the Taylor grazing Act of 1934. (see maps on pg 41 & 42).

Elevation on the Smithsfork Allotment ranges from 6,100 feet near the Bear River Valley bottom to 9,313 feet at the summit of Raymond Mountain. The topography of the area consists of an up thrust mountainous area (Raymond Mountain) cut by steep canyons on the west side of the allotment, to more rolling topography to the east. The entire allotment is fairly mountainous and is characterized by steep slopes and deep canyons. The allotment is split roughly in half by natural barriers along an east/west axis beginning at Raymond Canyon and running east to Muddy Ridge. A portion of the allotment is accessible only by foot travel or horseback due to the rugged terrain.

Precipitation ranges from 10 inches to 14 inches per year in the lower elevations of the allotment to 20 or more inches in the areas of Raymond Mountain with timbered slopes. Most of the precipitation comes in the form of snow with snow depths of three or more feet, common in late winter, with depths of 5 feet or more in the higher elevation areas. Deep snowdrifts are common and avalanches occur on steep slopes especially on Raymond Mountain. Rapid snowmelt in the spring can cause a high peak flood flow in any of the streams in the allotment. The area also experiences high intensity thunderstorms in the summer that can cause flash floods in the streams.

The Raymond Mountain Wilderness Study Area (WSA) is located in the Sublette Mountain Range (Raymond Mountains) in the western portion of the Smithsfork Allotment (see map on pg 43). The WSA is approximately nineteen miles in length and four miles wide at its widest point. It contains approximately 32,936 acres. The WSA has diverse vegetation and steep topography. A major portion of the area is forested with Douglas fir, lodgepole pine, and other coniferous trees, as well as aspen. The southern end of the WSA contains stands of big sagebrush and rock outcrops. The WSA is used by both cattle and sheep. In both “grandfathered” and non-“grandfathered” grazing, changes in number and kind of livestock within the WSA or in period of use may be permitted, as long as: (1) The changes do not cause declining condition or trend of the vegetation or soil, and (2) the changes do not cause unnecessary or undue degradation of the lands (see Appendix A). The WSA has diverse vegetation and steep topography.

The Raymond Mountain Area of Critical Environmental Concern (ACEC) was designated in 1982. It lies wholly within the boundaries of the Smithsfork Allotment and within the area being managed by the Thomas Fork Habitat Management Plan (HMP). The ACEC was designated to emphasize the management needs of the Bear River (Bonneville) Cutthroat Trout (BCT), which is a BLM sensitive species. The ACEC is approximately 11 miles in length and 4 miles wide at its widest point. It contains approximately 12,660 acres. (See map on pg 43).

Several streams are located in the allotment and within the WSA including Raymond Creek, Mill Creek, and Huff Creek. Numerous other streams are located within the allotment outside the WSA, including Coal Creek, Stoner Creek, First Creek, Second Creek, Third Creek, Fourth Creek, Little Muddy Creek, Muddy Creek, North and South Corral Creek, (see map on page 44).

**INTRODUCTION AND PURPOSE**

**Coordinated Resource Management Efforts**

The Smithsfork Coordinated Resource Management (CRM) process was initiated in the spring of 1995. The initial issues were condensed into the following three major areas. One issue was the lack of range improvements such as water developments, fences, and vegetation manipulation (brush control). Another issue considered was the lack of livestock control and poor distribution. And, finally, questions about livestock numbers versus capacity.

Wildlife numbers, predators, wildlife depredation on stored hay crops, cutthroat trout populations, and concerns with riparian habitat, stream degradation, and water quality were also identified. Concern with the plant succession in upland plant communities and recreational use of the allotment were also mentioned.

The subsequent major management concern on this allotment is the condition of riparian areas associated with streams and upland springs and seeps due to past grazing and other activities, which include chemical spraying of the riparian areas subsequently killing most of the willow populations in the late 60's and early 70's, and numerous sheep to cattle conversions. Under season-long grazing use, and with a lack of upland water sources, livestock tend to concentrate in riparian areas for virtually the entire growing season every year. Proper Functioning Condition Inventory Data indicates that most of the streams are "functioning-at risk" which means the riparian-wetland areas are in functional condition, but some resource attribute makes them susceptible to degradation. Some are in an upward trend and some are in a downward trend. This AMP will provide grazing management practices that should improve riparian vegetation on stream corridors and spring sites on the uplands (see map on pg 44).

The second major subsequent concern is the condition of upland plant communities. Some of the upland sites are dominated by stands of old, decadent sagebrush, mountain shrubs, and aspen. In 1968-1970, the BLM initiated a brush control program and treated approximately 21,500 acres (one quarter of the allotment). These treatment areas are now dense stands of sagebrush. Some of these stands are actually denser than adjacent untreated sites. Decades of fire suppression have also contributed to the current dominance of sagebrush in upland plant communities. A coordinated vegetation manipulation program to treat some of these old stands could be used.

To address this concern, proposals are being developed to begin implementation of vegetation manipulation to create a mosaic of different age classes, cover, and vertical structure within these communities. This will improve biologic diversity, wildlife habitat, and watershed function.

An additional concern is that cattle from the Smithsfork Allotment have been trespassing on the Kemmerer Ranger District of the Bridger-Teton National Forest north of the allotment.

### **Laws and Management Directives Governing BLM's Management of the Allotment**

BLM's management of the Smithsfork Allotment is governed by numerous applicable laws and regulations, as well as by management prescriptions and objectives contained in land use planning documents and other applicable management directives. Some of the laws governing management of the allotment include the Taylor Grazing Act, as amended, 43 USC 315, the Federal Land Policy and Management Act (FLPMA), as amended, 43 USC 1752, the Endangered Species Act, 7 USC 136, and the National Environmental Policy Act (NEPA), 42 USC 4321-4347. Included among the regulations governing BLM's management of the allotment are the grazing regulations in 43 CFR Part 4100.

BLM's management of the allotment is further governed by various land use planning documents and other management directives, only some of which are mentioned here. The 1986 Kemmerer Resource Management Plan (RMP) and the 1990 Rangeland Program Summary Update provide direction for management of the Smithsfork Allotment. The Allotment is also subject to the management prescriptions contained in the 1979 Thomas Fork Aquatic Habitat Management Plan (AHMP). The AHMP provides direction for managing habitat for the Bonneville Cutthroat Trout. The RMP stated on page 25 "The Thomas Fork HMP will continue to be implemented to improve habitat for the BCT and to maintain or improve associated riparian areas in the Thomas Fork Drainage". Management of the Raymond Mountain WSA is subject to the provisions of the Interim Management Policy and Guidelines for Lands Under Wilderness Review: Update Document H-8550-1, 11/10/87. Management of the ACEC is subject to the 1982 Raymond Mountain ACEC Plan. The RMP stated on page 28 "The Raymond Mountain ACEC plan will continue to be implemented".

In addition to the aforementioned management directives, the BLM is guided by the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management (S&G's), the BLM Strategic Plan Goals, and the BLM's Riparian Initiative. The Riparian Initiative goal is to restore and maintain riparian-wetland areas so 75 percent or more of these areas are in proper functioning condition.

The Greenline TRT established greenline objectives when they were initially read. These objectives were mentioned in the 2001 Final Decision as not being met and have been formally incorporated in the AMP as one of the Allotment Resource Specific Objectives.

### Land Use Plan Consistency

The Kemmerer Resource Management Plan (RMP) published in April 1986, and the Rangeland Program Summary Update, completed September 1990, provided direction for management of the Smithsfork Allotment. The allotment categorization process conducted during the preparation of the Kemmerer RMP categorized the Smithsfork Allotment as an (I) Allotment and ranked it number one for priority. The overall objective for "I" category allotments is to "improve" range conditions. The Kemmerer RMP identified poor livestock distribution, some riparian/wet meadows being overgrazed by livestock, conflicts between wildlife/watershed and livestock grazing, and accelerated soil erosion as problems on the allotment. The chart listed below was taken from the RMP and lists the problems and opportunities documented for the Smithsfork Allotment.

Allotment Number	Allotment Name	Resource Conflicts/Problems	Resource Management Objectives/Opportunities	Priority Ranking
21005	Smithsfork	Poor livestock distribution. Some riparian/wet meadow areas being overgrazed by livestock. Conflicts between wildlife/watershed and livestock grazing. Potential conflicts with energy development and other resources. Wildlife ACEC area. Some problems with unauthorized use by livestock. Accelerated soil erosion.	Need to improve distribution by developing water for livestock, salting and herding away from bottoms. Need to determine proper stocking rate through monitoring. Potential for vegetation manipulation on loamy range sites. Need to implement a grazing system based on the phenological requirements of the vegetation. Current program of dye marking cattle will be continued. Need to implement watershed management plan.	1

Other decisions in the land use plan were:

- The attainment of Wyoming Game and Fish Department strategic plan population objectives for wildlife will not be jeopardized.
- Riparian areas in the Thomas Fork Drainage will be managed to re-establish riparian/willow vegetation. Stream improvement practices to improve riparian and wetland areas for fisheries habitat will be implemented.
- The Thomas Fork AHMP will continue to be implemented to improve habitat for Bonneville Cutthroat Trout.

The BLM must take appropriate action under 43 CFR 4180 upon Determination that one or more of the *Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands* Administered by the BLM in the State of Wyoming are not being met.

A Rangeland Health Standards and Guidelines Conformance Assessment (S&G Assessment) was completed on May 5, 2000 by a BLM interdisciplinary team (ID Team). The S&G Assessment found that the resource conditions on the allotment did not meet Standard #2 (Riparian and wetland vegetation . . .) or Standard #4 (Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat . . .) and found that grazing management practices and levels of grazing use were significant factors in the failure to meet Standards #2 and #4. Under the grazing regulations, 43 CFR 4180, once a determination is made that existing grazing management practices or levels of grazing use are significant factors in the failure to achieve standards and/or failing to conform with guidelines, BLM is obligated to take appropriate action no later than the start of the next grazing year that will result in significant progress toward fulfillment of the standards and significant progress toward conformance with the guidelines.

STANDARD # 2: Riparian and wetland vegetation has structural, age, and species diversity characteristic of the stage of channel succession and is resilient and capable of recovering from natural and human disturbance in order to provide forage and cover, capture sediment, dissipate energy, and provide for groundwater recharge.

STANDARD # 4: Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat. Habitats that support or could support threatened species, endangered species, species of special concern, or sensitive species will be maintained or enhanced.

Based on these assessments, the BLM interdisciplinary team recommended that at a minimum, the guidelines that need to be addressed in the future management of this allotment include Guidelines 1 through 9 (below). Future permit terms and conditions need to address a reduced amount of hot season grazing that occurs on the same riparian areas at the same time each year, and discontinuation of season long grazing on parts of this allotment. Grazing Management Practices must provide for restoration, maintenance and improvement of riparian plant communities, and maintenance of adequate residual plant cover following grazing. Timing, duration, and levels of authorized grazing must be addressed throughout the allotment to ensure adequate progress towards the standards and allotment objectives. Range Improvements may be utilized to address implementation of grazing management changes to restore, maintain, or enhance habitats to assist in the recovery of sensitive or listed species (either state designated or federally listed).

#### Guidelines

1. Timing, duration, and levels of authorized grazing will ensure that adequate amounts of vegetative ground cover, including standing plant material and litter, remain after authorized use to support infiltration, maintain soil moisture storage, stabilize soils, allow the release of sufficient water to maintain system function, and to maintain subsurface soil conditions that support permeability rates and other processes appropriate to the site.
2. Grazing management practices will restore, maintain, or improve riparian plant communities.
3. Range improvement practices (instream structures, fences, water troughs, etc.) in and adjacent to riparian areas will ensure that stream channel morphology and functions appropriate to climate and landform are maintained or enhanced.
4. Grazing practices that consider the biotic communities as more than just a forage base will be designed in order to ensure that the appropriate kinds and amounts of soil organisms, plants, and animals to support the hydrologic cycle, nutrient cycle, and energy flow are maintained or enhanced.
5. Continuous season-long or other grazing management practices that hinder the completion of plant's life-sustaining reproductive and/or nutrient cycling processes will be modified to ensure adequate periods of rest at the appropriate times.
6. Grazing management practices and range improvements will adequately protect vegetative cover and physical conditions and maintain, restore, or enhance water quality to meet resource objectives.
7. Grazing management practices will incorporate the kinds and amounts of use that will restore, maintain, or enhance habitats to assist in the recovery of federal threatened and endangered species or the conservation of federally listed species of concern and other State-designated special status species.
8. Grazing management practices and range improvements will be designed to maintain or promote the physical and biological conditions necessary to sustain native animal populations and plant communities.
9. Grazing management practices on uplands will maintain desired plant communities or facilitate change toward desired plant communities.

The ID Team made numerous specific recommendations on ways to address the resource problems on the allotment and thereby begin making significant progress toward fulfillment of the standards and significant progress toward conformance with the guidelines. The ID Team recommendations included:

1. Future permit terms and conditions need to address a reduced amount of hot season grazing that occurs on the same riparian areas at the same time each year and discontinuation of season long grazing on parts of the allotment.
2. Grazing management practices must provide for restoration, maintenance and improvement of riparian plant communities, and maintenance of adequate residual plant cover following grazing.
3. Timing, duration and levels of authorized grazing must be addressed throughout the allotment.
4. Range improvements could be utilized to address implementation of grazing management changes to restore, maintain, or enhance habitats to assist in the recovery of sensitive or listed species.

## **A. MANAGEMENT SYSTEM**

### **Grazing History**

The Smithsfork Allotment (see map on pg. 41) has historically been used by both cattle and sheep. During the 1960's and early 1970's, a number of the sheep permits were converted to cattle permits. At the time the allotment was adjudicated, there were 33 separate livestock operations. Of this total, seven were permitted for only sheep, fourteen for only cattle, and twelve were permitted for both sheep and cattle. Through consolidation of operations and conversions in kind of livestock, as well as base property leases, 19 different operators are now permitted on 24 permits to run on the allotment. Four operators run only sheep, one operator runs both sheep and cattle, and fourteen run only cattle. There are 9,817 federal AUMS; 6,212 federal land cattle AUMS and 3,605 federal land sheep AUMS on the allotment. There are 4,190 AUMS of suspended use. The table on page 9 shows the permitted AUMS on the allotment, which included both active and suspended use. The tables on pages 13 and 16 depict the current authorized use on the allotment.

The federal and unfenced private and state lands in the Smithsfork Allotment were surveyed in 1960-62 to estimate annual forage production and to arrive at livestock carrying capacity adjudication. On the basis of that survey, livestock grazing was allocated at approximately 20% of the estimated total annual vegetation growth. The remaining annual plant production (80%) was reserved in place for plant health, watershed and soil protection, wildlife habitat and aesthetic purposes.

The Smithsfork Allotment, Notice of Final Advisory Board Recommendation and Decision of District Manager on Adjudication of Grazing Privileges, was adjudicated on March 30, 1966, for 11,584 livestock AUMS. This amounted to a 38.9% reduction from the recognized Class I demand of 18,945 AUMS. 2,348 AUMS were reserved for wildlife. The adjudication was subsequently appealed by the permittees. By a stipulation and agreement dated August 7, 1967, signed by the District Manager and State Director, the appellants withdrew their appeals. Parties to the agreement did agree to apply for and accept non-use to the extent of 13% of their recognized qualified demand. They also agreed to a three-year sagebrush control-spraying program. In 1968, 1969, and 1970, a total of 21,222 acres of Federal, State and private lands were sprayed. On November 10, 1970, the Kemmerer Resource Area Manager evaluated the spraying program and as a result, restored the amount of the 13% voluntary non-use mentioned above, to approximately 14,000 AUMS of federal preference.

The West Smithsfork Grazing Association was formed by the permittees in the 1950s in an effort to cooperate in the management of the allotment. This Association was in effect until the 1970s, at which time it became an informal organization. In the spring of 1999, the permittees reorganized the Grazing Association into the Smithsfork Grazing Association, which is formally chartered with the State of Wyoming. The purpose of the Association is to help facilitate management on the allotment, provide the permittees more consistency in the management of their livestock, and allow a more stable working relationship with the BLM.

Prior to formation of the Smithsfork Coordinated Resource Management (CRM) Steering Committee in 1995, there was an informal grazing system employed on the north end as a result of the Thomas Fork AHMP. The informal system consisted of deferment of the Huff Creek watershed until after August 1 each year. A rider was utilized on the north end to control livestock. Construction of the Huff Creek and Coal Creek Enclosures was completed in 1980, and the Little Muddy enclosure was built in 1982. Riding continued to be the primary method for livestock control during the 1995-2000 grazing seasons.

The Smithsfork Coordinated Resource management (CRM) process was initiated in the spring of 1995. Over 75 people were at the initial meetings concerning the formation of the CRM. The Smithsfork CRM Steering Committee was formed with membership coming from the Smithsfork Permittees, surrounding land owners, the Lincoln County Commission, the Bear Lake Regional commission, Trout Unlimited who represented the Sierra Club, Wyoming Wilderness Society, and other environmental groups, Wyoming Outdoor Council (WOC), the Wyoming Game and Fish Department (WG&FD), and the Lincoln Weed and Pest. The representatives for WOC and the WG&FD have since resigned from the CRM. The current mailing list for the CRM has 87 individuals and organizations.

In 1995 and 1996, the permittees proposed a rotation using herding in lieu of pasture fencing as an alternative to season-long grazing. The operators attempted to rotate their individual cattle herds according to the rotation plan, but livestock control was very difficult. This system did not improve grazing distribution or resource conditions significantly.

The Little Muddy enclosure was rebuilt with new materials in 1997. The Huff Creek enclosure was rebuilt with new materials in 1999. The Coal Creek enclosure was reconstructed in October 2000. The BLM assumed maintenance responsibility on the enclosure fences. Since the establishment of the CRM in 1995, changes in management were employed under Annual Authorizations or Annual Operating Plans (AOP). Various deferred rotation systems using natural barriers and herding were attempted between 1995 and 2000.

In 1997, a high-intensity, short-duration system using riders was implemented under an AOP. Each operator had assigned use areas, move dates and utilization criteria. Voluntary non-use was taken to provide rest in Raymond Canyon. Again, this system did not produce the desired results due to the lack of pasture fencing and difficulty in controlling cattle by herding alone.

The 1998 AOP proposed two separate grazing rotations; one for the north half and one for the south half of the allotment. The north and south units each had four use areas in which cattle were to be rotated in a deferred grazing system. Spring/fall sheep use was also coordinated with the cattle rotation. Some electric fencing and four full time riders were used to implement these rotations. Some success was noted in lowering utilization levels, achieving better grazing distribution and increasing residual stubble heights along riparian greenlines.

Approximately 11,500 AUMS of Active Use of the 14,010 AUMS of Active Preference were licensed for the five years prior to 1999. This average 18% non-use includes ten percent voluntary non-use taken by the permittees in 1997-1999 to compensate for prescribed rest of the Raymond Canyon Watershed recommended by the BLM.

In 1999, the AOP essentially continued the 1998 grazing plan, which resulted in improvement in resource conditions on portions of the allotment, especially Raymond Canyon. However, cattle control without pasture fences continued to be inadequate. This grazing plan proposed 7 pastures for rotating two separate cattle herds in the north and the south. Successful implementation of these rotations would require an excessive amount of pasture fencing. A much simpler grazing system involving fewer pastures and perhaps a single cattle herd was proposed after the grazing season by the association.

In 2000, a two-pasture deferred system with one herd of cattle and individual use areas for sheep was attempted. Initially, cattle were distributed to the South Pasture from late May through Mid-July. Without fencing barriers, some cattle made their way into the North Pasture early, especially in the Little Muddy drainage. Four riders were assigned to keep cattle in the authorized use areas.

Complications with the riders occurred including injuries, scheduling difficulties, cattle placement, and communication problems. When the pasture moves were scheduled to the North Pasture, the majority of the cattle made the move; however there continued to be cattle drift and strays throughout the summer in the South Pasture. Raymond Canyon was used heavily due to inadequate control of livestock in the canyon. The result after one year albeit during drought conditions, was that stubble heights were exceeded in most of the streambank riparian corridors for some or a large portion of each of the streams in the allotment. Regrowth did occur to adequate levels where livestock were successfully herded or kept out of the creeks for that time frame. However, even where this success was observed early, it was compromised later in the season due to drift of livestock back into those areas, utilizing that critical regrowth.

On August 2, 2001, the Kemmerer Field Office issued a Final Decision (FD) reducing the capacity of the allotment by 30% over four years. The 14,010 AUMS of active preference was reduced by Final Decision to 9,817 AUMS: 6212 Cattle AUMS and 3605 Sheep AUMS. The AUMS that were reduced and no longer authorized are listed on the new permits as Suspended AUMS. The FD also specified the development of this Final AMP by the start of the 2005 grazing season.

The permittees are responsible for on the ground management of the livestock. The permittees are expected to comply with the designated move dates for pastures and having the livestock off the allotment by the permitted off date. The permittees are expected to have an adequate number of riders to manage the livestock on the allotment.

The current permitted AUMS will be authorized on the new permits to be issued on March 1, 2005. The permitted numbers have not changed from the current permits, which expire February 28, 2005, with the exception that there have been a couple of transfers of grazing privileges since the issuance of the 2001 decision.

There are currently 24 active permits on the Smithsfork Allotment. The chart below reflects the permitted: Active and suspended AUMS on the allotment.

AUTHORIZATION NUMBER	OPERATOR	PERMITTED AUMS	ACTIVE AUMS	SUSPENDED AUMS
4904005	ARGYLE RANCH INC	1651	1156	495
4904012	BISCHOFF, ERNEST G.	41	29	12
4904016	BOEHME RANCH	422	296	126
4904017	BOEHME, JOHN & SONS	95	68	27
4904028	3Y LIVESTOCK LC	1105	775	330
4904030	BOEHME, GARTH T.	155	110	45
4904043	HARDESTY, CHARLES & ANGELA	284	200	84
4904062	JOHNS, ROLAND	198	141	57
4904080	HIRSCHI, LaVALL	7	4	3
4904104	LOERTSCHER, KARMA	667	469	198
4904138	ROBERTS, FRED W	2551	1786	765
4904192	TEICHERT BROTHERS, LLC	186	132	54
4904198	MINHONDO RANCH	275	194	81
4904265	CORNIA, HAL B	185	131	54
4904276	POPE, EVAN	2412	1689	723
4904300	CORNIA, HAL B	265	187	78
4900048	K-H INVESTMENTS LIMITED	454	319	135
4900105	ESTERHOLDT, ERICK W**	752	530	222
4900157	BROOKS, SHANE, lease	81	57	24
4900221	ARGYLE RANCH, INC, lease	140	98	42
4900212	NECKTIE RANCH, LLC, lease	854	588	266
4900217	ROBERTS, FRED W	45	37	8
4900219	ARGYLE RANCH, INC	272	187	85
4900220	LARSON, GERRY, lease	910	634	276
	TOTALS	14007	9817	4190
4900105	** Fenced private pasture		21	

### General Livestock Operations - All Operators

As directed by the Smithsfork Grazing Association, the daily livestock grazing operations on the Smithsfork Allotment will be the responsibility of the Association Range Boss, as a representative of all permittees and the Association, working in cooperation and coordination with the BLM in compliance with the prescribed management plan. The Range Boss will coordinate and direct on the ground livestock operations including turnout, herding within the pastures, pasture moves, salt placement and fall gather. The Range Boss may call upon the Association Directors for assistance in resolving conflicts that may arise.

The Association will develop a range-riding plan that assures the availability of the necessary additional riding help from each of the Smithsfork cattle permittees to effectively accomplish pasture moves, fall gather, and any unforeseen contingency.

The one herd concept for cattle is for pasture management only. The cattle will be moved as a herd unit between pastures on the specified move dates. Once in a pasture, the cattle can either be dispersed throughout the pasture or moved as a

herd unit throughout the pasture. Proper distribution of livestock in both the uplands and riparian areas will assure that the potential proper utilization levels occur and that the potential for remaining vegetation is met.

The recognized key areas for management on the Smithsfork Allotment are the riparian areas. Management and move criteria used for moving the livestock prior to the authorized move dates will be based on utilization and annual monitoring data collected in the riparian areas.

All livestock will have identifiable, authorized brands, paint brands and/or ear tags with identification of the operator. All cattle on the allotment will also have an authorized BLM ear tag.

At present, no threatened, endangered or candidate species are known to occur on the allotment. Habitat for grey wolf is present and the area is within the potential recovery range for the grizzly bear. In the event these species remain on the threatened or endangered species lists, and eventually occupy habitat on or immediately adjacent to the allotment, protection measures for these species could become management requirements for the allotment. Some potential measures would be carcass removal to prevent attraction of bears and potentially encouraging predation on livestock and bear proof food and grain storage. Other species occupying the allotment could become listed as threatened or endangered, with their own sets of protection measures which would also become requirements on the allotment.

- Sage Grouse management stipulations:
    - Sage Grouse Leks. No surface disturbance within 1/4 mile of lek center between February 1- May 15.
    - Sage Grouse Nesting. No surface disturbance within 2 miles of lek center between April 1- July 1.
- See map for Sage Grouse Lek locations (pg 46).

#### **General Management Stipulations Common to Both Classes of Livestock**

- Requests for an increase of AUM's authorized on the allotment will not be given consideration unless and until the riparian conditions reach PFC on 75% of the streams on the allotment.
- Vegetative Treatments can begin after an adequate grazing system is in place and control of livestock has
- Raymond Canyon Non-Use: will be 8% based upon surveyed capacity of the Raymond Canyon Watershed, has been implemented for all authorizations. The BLM recommended the non-use, and the permittees agreed to take the non-use rather than have it decisioned. Based on the non-use, no grazing is authorized in the watershed at the present time. This is to assist in the recovery of the riparian areas in the watershed. This non-use will continue to be reflected on the Annual Grazing Applications and Grazing Bills, (see charts on pages 13 and 16 for the 2005 grazing season). The non-use rate is calculated based on the current year's authorized AUMS. When conditions improve to meet the riparian objective of 75% of streams on the allotment meeting PFC, then the BLM will consider re-authorizing these AUMS. If conditions on the riparian areas deteriorate after the AUMS are re-instated, the BLM will take further action to ensure protection of the riparian resources.
- Trailing will be allowed in the Raymond Canyon Watershed. This use will be restricted to trailing to and from the designated use areas on the allotment. Cattle herds will be trailed through the canyon in one day. The KFO will be notified prior to livestock being trailed through the canyon so the use can be monitored. This use will be approved based upon resource data available from the monitoring for the current year's use. Fall trailing may be limited or curtailed based on that data.
- Some permittees who have private and/or state lands within the allotment have proposed fencing their in-holdings. This would allow them to use their lands unfettered by the AMP and its management requirements. This would also mean they may need to trail to their in-holdings prior to or after the end of the grazing season. This trailing would have to be applied for prior to the trailing and would have to be on an annual basis. This trailing would be allowed, based on the location of the proposed trailing, and the timing of the trailing which would have to be coordinated and authorized prior to use. The AUMS used for trailing would be authorized under Permitted AUMS.
- Trailing back through a pasture that has already been used in the fall to get the livestock back home will be authorized. This trailing will take one day. Use of the 4<sup>th</sup> Creek pasture as a holding pasture for the fall trailing will be authorized as needed. This use will be for one night per trailing herd.
- Sheep use, other than trailing, in the Raymond Canyon Watershed may be authorized on an annual basis. This use would be restricted to the uplands within the North Fork of Raymond Creek. No sheep use would be authorized in

the riparian areas. Spring and fall sheep trailing will be authorized. Sheep trailing will be restricted to the uplands along the Igo Speedway on either side of the Raymond Canyon Watershed fence.

- The association will maintain an adequate number of riders and one range boss, dedicated to the management of cattle for the duration of the grazing period each year. One of the riders will be assigned to keep cattle out of Raymond Canyon. Under the direction of the Range Boss, the riders will maintain distribution within the pastures, herd cattle away from spring lambing areas, assist in the pasture moves, and the fall gather. The riders will move with the herd in both the south and north pastures. The riders will be allowed reasonable accommodation for horses and a camp throughout the use period. All riders will be in place prior to the grazing season.
- If small or isolated areas of heavy use are found during annual monitoring in a pasture, then the BLM will meet with the permittees to discuss management options such as moving the livestock to another part of the pasture and closing the area, or moving the livestock to the next pasture if needed and closing the pasture early.
- During the lambing period, cattle should not disturb the ewes and new lambs. The range riders will distribute cattle in the south unit to avoid the lambing areas, and will keep cattle herded away until the ewes have lambed. The Range Boss and the sheep permittee will resolve problems that may develop each year to allow the ewes and lambs to mother up and move, and to allow docking, branding, and making up the herds to occur.
- Cattle can be distributed throughout the entire pasture once they are moved into a pasture.
- Livestock will be moved on established move dates unless it appears the established use criteria may be exceeded prior to the off date. The vegetative use level objective for the spring and second use pastures is 3 inches on Nebraska Sedge or 5 inches on Beaked Sedge and 5 inches on either species in the third and fourth pastures. The vegetative use level objective for willow use is 40%. In those cases, the BLM staff and Range Boss will determine earlier actual move dates based on maintaining the minimum greenline sedge stubble height or willow vegetative use level objective.
- At the present time, one non-permittee trails across the allotment. This use must be applied for and approved prior to making use each year.
- Salt placement will be coordinated with the grazing schedule to improve cattle distribution within pastures. Salt placement within any pasture must be located at least 1/4 mile away from federal riparian areas and aspen stands. Salt will be removed from a pasture after that pasture has been used, and salt will not be placed in a pasture until one week prior to that pasture being used.
- The boundary fence on Etcheverry/Esterholdt pasture may be moved back to the federal land-line if problems with maintenance continue.
- In accordance with the decision issued on August 6, 2004, all authorized cattle on the Smithsfork Allotment will have a BLM ear tag as provided and specified by the BLM during 2005 and subsequent grazing seasons. In addition, all permittees who plan on running livestock that they do not own are required to provide all brands to the KFO prior to turn out, as required by regulation. These cattle will also be ear tagged with the authorized BLM ear tags.

As also provided in the decision dated August 6, 2004, the BLM will allow up to a three percent loss for ear tags in authorized cattle each year. (For every 100 ear tags issued for the 2005 grazing season, the expected ear tag loss due to death or loss of the ear tag while the cow is on the range would be no more than three tags per year). Upon request by the permittees at the end of the current grazing year, new ear tags will be provided at the end of the grazing season to cover up to a three percent loss. Ear tags will have to be removed from cattle sold or otherwise not returning to the allotment the following year, as no credit will be authorized for any such ear tags not removed and returned to the BLM

Different colored ear tags will be provided every fourth year. The replacement ear tags will no longer be accepted as the authorized ear tag for cattle on the Smithsfork Allotment.

- Sheep that graze and/or trail on the allotment will be counted by BLM staff. This can occur either when the sheep enter the allotment or after the sheep are on the allotment.
- Re-grazing of a drainage or federal riparian area used by sheep in the spring will not be authorized for sheep use in the fall: i.e., the North Corral Creek drainage can be grazed either in the spring or fall.
- Sheep operations will be coordinated among the users and with the BLM to avoid conflicts on the allotment. Each operator's annual operating system and use area will be defined prior to the grazing season and listed on the individual Grazing Bill.
- Sheep will be herded to water. Once the sheep have watered, they will be herded away from the water and not be allowed to linger on the riparian areas located on federal lands. Specific watering sites will be identified with the operator and BLM prior to the start of the grazing season and/or different watering spots will be used each

day to avoid over use at the watering sites. Daily use periods for watering should not exceed 2 hours at a time, for example between 11:00 AM and 1:00 PM, as determined by the sheep operator. The operator should notify the BLM of his preferred time, but this can vary by day, but should not exceed 2 hours.

- Drop herds for lambing will be allowed to stay in place while the lambs are young. Once the lambs are old enough for the drops herds to be pulled back into the larger herds, these herds will follow established herding and move criteria, vegetative use level objective. Re-grazing of an area, once the vegetative use level objective for sedges and willows has been met, will not be allowed.
- Sheep herds will not be allowed to linger on the riparian areas for an extended period of time. The herds will be moved using the established move criteria, vegetative use level objective, to avoid over using any specific area.
- No sheep camps will be allowed in the riparian areas located on federal lands.
- No sheep will be allowed to bed down over night in the riparian areas located on federal lands.
- Any docking, holding, or separating corrals will be set up away from riparian areas located on federal lands.
- Exchange of Use (E/U) AUMS. A landowner receives credit for AUMS on unfenced private/state lands made available for grazing within an allotment. The private landowner or state lessee who makes these lands available for grazing by other permittees receives credit for the same number of AUMS, which allows them to graze their livestock on the federal lands within that allotment. E/U AUMS do not show up on permits, unless percent Public Land (PL) is expressed. On the Smithsfork Allotment, all permits reflect 100% PL, and show only the authorized federal numbers and AUMS. The E/U AUMS are shown on the grazing application, and grazing bills.
- Until such time that the boundary between the north portions of the Smithsfork Allotment and the Forest Service Kemmerer Ranger District can be fenced, the permittees will use a rider to keep their cattle off the Forest Service administered land.
- Periods of use by pasture: These use periods were based on data taken from the adjudication map developed from data collected in the late 1960's.

South	35 days
Little Muddy	20-30 days
Coal/Dipper	30 days
Huff	15 to 20 days

## Grazing Rotation and Pasture Management System for Cattle

The information in the chart below shows the numbers of livestock and AUMS that will be authorized to graze in 2005. The numbers include the 30% reductions and the 8% non-use for Raymond Canyon. These numbers will be shown on the 2005 Grazing Applications.

AUTHORIZED USE AS OF MARCH 1, 2005						
NUMBER	NAME	TYPE OF USE	NUMBER	ON DATE	OFF DATE	AUMS
4904138	ROBERTS	FEDERAL	148			530
		E/U	62			218
4904012	BISCHOFF	FEDERAL	8			27
4904016	BOEHME RANCH	FEDERAL	77			272
4904017	JOHN BOEHME	FEDERAL	17			63
		E/U	9			33
4904030	GARTH BOEHME	FEDERAL	28			101
4900157	SHANE BROOKS	FEDERAL	15			52
4904043	HARDESTY	E/U	64			224
		FEDERAL	52			184
		FEDERAL	136			488
		E/U	157			614
4904062	JOHNS	E/U	8			29
4900212	MUIR	FEDERAL	93			333
		E/U	8	29		
		FEDERAL	58	208		
4900048	CORNIA	FEDERAL	82			293
4904104	LOERTSCHER	FEDERAL	121			431
		E/U	4	15		
4904192	TEICHERT	FEDERAL	35			121
4904198	MINHONDO	FEDERAL	50			178
4904265	CORNIA	FEDERAL	34			121
4904276	POPE	FEDERAL	434			1554
		E/U	180	643		
4904300	CORNIA	FEDERAL	48			171
		E/U	41			144
4900220	LARSON	FEDERAL	163			584
	TOTAL	FEDERAL	1613			5711
		NUMBERS	E/U	533	1949	

Grazing rotation and pasture management system for cattle:

- The current fencing has created three (3) separated pastures; the South end, the Huff Creek/Little Muddy Creek drainages, and the Coal/Dipper Creek area. The IGO Speedway divides the Huff Creek/Little Muddy into separate areas. The permittees feel they can control the boundary between the Little Muddy and Huff Creek drainages or use areas without additional fencing. These four areas (pastures): South, Little Muddy, Coal/Dipper, and Huff will be used for a 4 pasture deferred rotation for cattle. (see map on page 47)
- Three years out of four, cattle are planned to start in the Little Muddy, Coal/Dipper, or Huff Creek Pasture, see chart on page 15, along with move criteria. .
- Use of the 4<sup>th</sup> Creek pasture as a holding pasture for the fall trailing will be authorized as needed. This use will be for one night per trailing herd, (see map on pg 47). The AUMS in this pasture come from the relinquished AUMS from Scott Nieslanik. The Nieslanik permit was cancelled by Proposed/Final Decision in June of 2003.
- Pasture management and moves will be based on dates. By using dates, the permittees have a set day they know

the livestock are to be moved by can plan ahead to have adequate riders for the moves. The pasture dates are listed in the following chart for each different pasture schedule. It is the responsibility of the permittees to meet the specified pasture move dates and permitted off date for the allotment. (See map 47).

- Livestock use will be monitored and livestock may be moved earlier than the dates listed for the pasture management based on vegetative use level objectives. The vegetative use level objective in the first and second pastures is 3 inches of stubble height for Nebraska sedge where it is dominant or 5 inches of stubble height for Beaked sedge where it is dominant, 5 inches of stubble height in the third and fourth use pasture for either species of sedge, and 40% utilization on willows. Refer to handbooks and tech references listed in Appendix A, page 33. Browsing intensity on willows will be monitored throughout the year and evaluated annually. The nearest young plant (less than 5-foot high, single stem or simple branching, non-seed producing) will be used as the sampled plant. The willow transects are approximately parallel to the stream.
- In discussions with the permittees and their range consultant, it was decided by the BLM to add Beaked sedge because the 5 inch stubble height of the sedges community, regardless of the sedge species is the minimum stubble height recommended for bank protection and achievement of improved riparian conditions.
  - Spring Use-Start Pasture: The following indicators will be used to help determine when to remove cattle from the spring pasture, or when to shift distribution within this pasture: 1) Animal behavior, i.e. (cattle starting to hang in the riparian areas); 2) forage selectivity; 3) willow vegetative use level objective. The allowable vegetative use level objective is 3 inches of stubble height on Nebraska sedge where it is dominant or 5 inches of stubble height for Beaked sedge where it is dominant. The allowable vegetative use level objective for willows it is 40% of current year's growth based on the average percent of leaders browsed on approximately 20 plants on the federal riparian transects.
  - Second Use Pasture-Summer: Livestock will be removed when the allowable vegetative use level objective is 3 inches of stubble height on Nebraska sedge where it is dominant or 5 inches of stubble height for Beaked sedge where it is dominant. The allowable vegetative use level objective for willows it is 40% of current year's growth based on the average percent of leaders browsed on approximately 20 plants on the federal riparian transects.
  - Third Use Pasture-Summer: Livestock will be removed when the stubble height on either species in the sedge community approaches 5 inches. For upland utilization, livestock will be moved when 50% utilization of current year's growth, as measured by the Key Forage Plant Method, is reached on grasses. The allowable vegetative use level objective for willows is 40% of current year's growth based on the average percent of leaders browsed on approximately 20 plants on the federal riparian transects.
  - Last Pasture-Off Pasture: Livestock will be removed when the stubble height on either species in the sedge community approaches 5 inches. For upland utilization, livestock will be moved when 50% utilization of current years growth, as measured by the Key forge Plant Method, is reached on grasses. The allowable vegetative use level objective for willows is 40% of current year's growth based on the average percent of leaders browsed on approximately 20 plants on the federal riparian transects.

The complete pasture rotation system will be based on the information listed below.

Once the AMP is implemented, the following grazing schedule will go into effect. The Huff Creek pasture was used last in 2004 and will be used first in 2005. This grazing system will be implemented with the 2005 grazing season.				
<b>YEAR 1</b>	START	MOVE TO	MOVE TO	OFF
	Huff	Coal/Dipper	Little Muddy	South
	5/16 to 6/05	6/06 to 7/05	7/06 to 8/01	8/02 to 9/1

- **Spring Use-Start Pasture-Huff Creek:** The livestock will be moved from this spring pasture no later than June 5.
- **Second Use Pasture-Summer-Coal/Dipper:** Livestock will be moved from this pasture no later than July 05 to allow for adequate hot season rest for riparian vegetation growth following grazing.
- **Third Use Pasture-Summer-Little Muddy:** Livestock will be moved from this pasture no later than August 01 to allow for adequate hot season rest and for riparian vegetation re-growth following grazing.
- **Last Pasture-Off pasture-South:** Livestock will be removed from this pasture no later than September 1.

<b>YEAR 2</b>	START	MOVE TO	MOVE TO	OFF
	Coal/Dipper	Huff	South	Little Muddy
	6/01 TO 6/30	7/01 TO 7/20	7/21 TO 8/25	8/26 TO 9/15

Due to snow conditions that normally occur, and plant phenological requirements, this rotation starts 15 days later in the season and end 15 days later in the fall.

- **Spring Use-Start Pasture-Coal/Dipper:** When the Coal/Dipper Pasture is used first in the spring, the start date will be June 1. Livestock will be moved from the spring pasture no later than June 30.
- **Second Use Pasture-Summer-Huff Creek:** Livestock will be moved from this pasture no later than July 20 to allow for adequate hot season rest and for riparian vegetation re-growth following grazing.
- **Third Use Pasture-Summer-South:** Livestock will be moved from this pasture no later than August 25 to allow for adequate hot season rest and for riparian vegetation re-growth following grazing.
- **Last Pasture-Off Pasture-Coal/Dipper:** Livestock will be removed from this pasture no later than September 15.

<b>YEAR 3</b>	START	MOVE TO	MOVE TO	OFF
	Little Muddy	South	Huff	Coal/Dipper
	5/16 to 6/15	6/16 to 7/20	7/21 to 8/05	8/06 to 9/1

- **Spring Use-Start Pasture-Little Muddy:** Livestock will be moved from the spring pasture no later than June 15.
- **Second Use Pasture-Summer-South:** Livestock will be moved from this pasture no later than July 20 to allow for adequate hot season rest and for riparian vegetation –re-growth following grazing.
- **Third Use Pasture-Summer-Huff:** Livestock will be moved from this pasture no later than August 05 to allow for adequate hot season rest and for riparian vegetation re-growth following grazing.
- **Last Pasture-Off-Coal/Dipper:** Livestock will be removed from this pasture no later than September 1.

<b>YEAR 4</b>	START	MOVE TO	MOVE TO	OFF
	South	Little Muddy	Coal/Dipper	Huff
	5/16 to 6/20	6/21 to 7/15	7/16 to 8/15	8/16 to 9/1

- **Spring Use-Start Pasture-South:** Livestock will be moved from the spring pasture no later than June 20. Cattle will be held in Mill Creek, First Creek, and Second Creek until 6/5 to 6/10 when ½ of the herd numbers will be moved in to Muddy Creek and onto Muddy Ridge; and 6/10 to 6/15 when the second ½ of the herd numbers will be moved south into Robert’s area south of Mill Creek.
- **Second Use Pasture-Summer-Little Muddy:** Livestock will be moved from this pasture no later than July 15 to allow for adequate hot season rest and for riparian vegetation re-growth following grazing.
- **Third Use Pasture-Summer-Coal/Dipper:** Livestock will be moved from this pasture no later than August 15 to allow for adequate not season rest and for riparian vegetation re-growth following grazing.
- **Last Pasture-Off pasture-Huff Creek:** The cattle will be re-moved from this pasture no later than September 1.

## Rotation and Pasture Management System for Sheep

The information in the chart below shows the numbers of livestock and AUMS that will be authorized to graze in 2005. The numbers include the 30% reductions and the 8% non-use for Raymond Canyon. These numbers will be shown on the 2005 Grazing Applications.

AUTHORIZED USE AS OF MARCH 1, 2005						
SHEEP						
SPRING USE						
NUMBER	NAME	TYPE OF USE	NUMBER	DATE ON	DATE OFF	AUMS
4904138	ROBERTS	FEDERAL	2484	05/05	06/30	931
		E/U	370			139
4904005	ARGYLE	FEDERAL	2070	05/10	07/09	830
		E/U	74			30
4900217	ROBERTS	FEDERAL	1	05/05	06/30	1
		E/U	313	05/05	06/30	117
4900221	ARGYLE	FEDERAL	166	05/10	07/06	72
4904028	3Y LIVESTOCK	FEDERAL	1086	05/10	07/06	414
		E/U	850			325
4904062	JOHNS	FEDERAL	340	05/10	07/06	130
		E/U	109			41
4904080	HIRSCHI	FEDERAL	18	06/01	06/30	4
4900219	ARGYLE	FEDERAL	396	05/05	07/09	172
	TOTAL					2554 FEDERAL AUMS 652 E/U AUMS
FALL USE						
4904138	ROBERTS	FEDERAL	2484	09/30	10/10	180
		E/U	370			27
4904005	ARGYLE	FEDERAL	1225	09/17	10/15	234
		E/U	44			12
4900221	ARGYLE	FEDERAL	97	09/17	10/15	18
4904028	3Y LIVESTOCK	FEDERAL	1084	09/20	10/31	299
		E/U	850			235
4900217	ROBERTS	FEDERAL	460	09/30	10/10	33
	ROBERTS	E/U	340	09/30	10/10	22
	TOTAL					764 FEDERAL AUMS 296 E/U AUMS
	TOTAL					3317 FEDERAL AUMS 948 E/U AUMS

- Areas or drainages grazed in the spring by sheep will not be re-used in the fall. The utilization criteria of 5 inches of stubble height on the sedge communities and 40% use levels on willows will apply to the fall use areas. This applies to major drainages/ridges like North Corral Creek or Muddy Ridge.
- Lambing in the same area every year may be causing resource damage. Different lambing areas should be found and worked into the rotation. 43 §§ 4180.2(f)(2)Fallback guidelines(xii) Continuous, season-long livestock use is allowed to occur only when it has been demonstrated to be consistent with achieving healthy, properly functioning ecosystems;
- The 3Y Livestock Company is the only large sheep operator using the north end of the allotment on a yearly basis. The 3Y is authorized on both the Inchauspe and Smithsfork Allotments. 3Y can use one allotment in the spring and the other in the fall, in their own grazing system. The Smithsfork would be used first every other year, and last the alternating years. The reverse would occur on Inchauspe. This would allow a deferred grazing system for the sheep use on the north end of the allotment. This use can be coordinated with the cattle use on the Inchauspe allotment.
- Roland Johns would rotate his herd through the uplands on the entire south pasture moving on average every 4-6

- days. This use would be coordinated with Roberts and Argyle.
- One (1) year in four, cattle would start in the south pasture: i.e.: The cattle would start in Mill Creek, First Creek, and Second Creek, (see Map on page 47) and:
    - Roberts: 05/05 To 6/15: Sheep on North Corral Creek, South Corral Creek, and areas west and south to the boundary fence with Quealy Reservoir, then allow cattle to move into this use area on June 15. Sheep would move north into uplands in cattle spring use area.
    - Argyle: 05/10 To 6/10: Sheep on Muddy Ridge, then allow cattle to move into this use area on June 10. Sheep would move north into the uplands of the Little Muddy pasture.
  - Three (3) years, when cattle start in Little Muddy, Coal/Dipper, or Huff pastures then:
    - Roberts, scatter in entire South End including Mill Creek, concentrating on the upland areas.
    - Argyle, scatter in South End, including First Creek and Second Creek, concentrating on the upland areas.

### **Future Reductions/Increases Based on Monitoring**

Future reductions will be based on annual monitoring on federal lands after livestock have left the allotment. The criteria for future reductions will be based on the use criteria of (1) 5 inches of stubble height remaining on the key riparian species of Nebraska Sedge and/or Beaked Sedge and (2) 40% utilization on willow plants has not been exceeded. The monitoring criteria (vegetative use level objectives) for stubble height and willow use will be measured in all four pastures.

- The established vegetative use level objectives are:
  - a. The stubble height objective for the standing stubble on the green line on the federal riparian areas in all pastures will be an average of 5 inches of standing stubble for Nebraska Sedge, *Carex nebraskensis*, or Beaked Sedge, *Carex rostrata*, the identified key species. This use will be measured after all livestock have left the allotment in the fall. Five inches has been identified as the minimum stubble height needed to provide streambank protection for the following spring runoff.
  - b. The use objective for willows in all pastures for willows is 40% of current years growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects as measured after all livestock have left the allotment in the fall. Browsing intensity on willows will be monitored throughout the year and evaluated annually. The nearest young plant (less than 5-foot high, single stem or simple branching, non-seed producing) will be used as the sampled plant. The willow transects are approximately parallel to the stream.

The vegetative use level objectives for the allotment were met after the 2004 grazing season. The option “actions to be implemented when vegetative use levels objectives are met” will be implemented for the 2005 grazing season.

### **Actions to be implemented when vegetative use levels objectives are met**

- Once the Vegetative Use Level Objectives have been met, no further reductions would be implemented unless objectives are not met for two consecutive years or a pattern of not meeting objectives every other year become established.
- If the established vegetative use level objectives are not met after the 2005 and 2006 grazing seasons, livestock use, as measured in AUMS, will be reduced by 10% per year starting in 2007 and will be reduced by 10% each year until vegetative objectives are met. For example: 100 AUMS in 2005 and 2006 will be reduced to 90 AUMS in 2007, 80 AUMS in 2008, etc. The reduced AUMS will be placed in suspended non-use.

### **Increases in AUMS on the allotment:**

- The minimum criteria for evaluating increases will be when riparian conditions reach PFC on 75% of the streams. Then the BLM will assess if AUMS may be increased. This may be re-authorized at a rate of 10% or less per year. Raymond Canyon may also be re-considered for increased grazing use once PFC is achieved.

## B. FLEXIBILITY

Flexibility in livestock numbers, season of use, and stocking rate is important to the success of a grazing plan. Rangeland ecosystems are characteristically variable over time and locale. Production and (to some extent) animal behavior is affected by annual weather conditions and rarely do weather and/or biologic processes produce the same forage conditions from year to year. Consequently, flexibility must be built into long-term grazing plans. Yearly stocking rates, pasture moves, and AUMS, (not to exceed the permitted AUMS or permitted season of use,) may vary from year to year. It is important, however, that management responses to changes in forage availability, animal behavior, vegetation treatments, or resource conditions be discussed and agreed upon by livestock managers, the CRM Steering Committee, and the BLM staff and/or appropriate committee.

It is recognized that it may take up to 10 days to complete the pasture move. Gates in the division fence can be opened 5 days prior to the designated move date. The gates must then be closed after the livestock have been moved. All permittees will provide riders under direction of the range boss to effectively complete the pasture move. If half the livestock are moved prior to the listed move date, then the remaining 50% could be moved in the 5 days after the specified move date, see grazing rotation on page 20.

If forage conditions in the last pasture exceed vegetative use objectives, then a possible extension of grazing could be authorized. Certain other conditions would have to be met: (1) stubble heights would have to exceed 10 inches in the last pasture and (2) use level objectives would have had exceeded in the first and second use pastures. No additional use would be authorized if other pastures had been used heavier than prescribed.

Heavy snow conditions in the north and middle pastures may require using the south pasture first out of the planned sequence. Also, if light snow conditions allow, the middle or north pastures may be used first out of the planned sequence.

One alternative is to start in the South pasture and the Coal/Dipper Creek pasture for cattle. When the cattle are moved from one of the pastures, both of these pastures would be closed at the same time. This alternative could be used when the south pasture is scheduled to be used first: this would help reduce conflicts between sheep and cattle in the south pasture. This alternative would not be used more than one year in a row.

START-YEAR 4	MOVE TO	OFF
Pastures 1/2	3	4
5/15 to 7/15	7/16 to 8/15	8/16 to 9/1

The allotment opening date for cattle is May 15. This date can be changed to a later date on an annual basis at the Annual Operating Meeting. This can address resource situations that arise on a seasonal basis. If the on date is modified to a later date, the off date can be modified to handle seasonal situations dictated by seasonal monitoring data; i.e. June 1 to September 15; or June 15 to September 30, but will not be later than September 30 for cattle and October 31 for sheep. When the Coal Creek/Dipper Pasture is used first, the start date would be June 1. The cattle numbers can be adjusted for a shortened grazing season, or the off date can be adjusted to September 15 to maintain permitted numbers. NOTE: All permittees will run together for the same season of use by either adjusting numbers or adjusting the season of use.

## C. OBJECTIVES

### BLM Goals/Objectives

The current grazing regulations (43 CFR 4100) state that the Bureau's objective is to promote healthy, sustainable rangeland ecosystems; accelerate restoration and improvement of federal rangelands to proper functioning condition; promote the orderly use, improvement and development of the federal lands; establish efficient and effective administration of grazing of federal rangelands; and provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy federal rangelands.

The Bureau of Land Management's Riparian Wetlands Initiative for the 90's set the goal that by 1997, 75% of the federal riparian wetland areas will be in proper functioning condition. The proper functioning condition definition is, in essence, that riparian vegetation will be present along streams sufficient to dissipate stream energy during high flows, provide

bank stability, improve water quality, aid floodplain development, develop diverse channel characteristics, and support greater biodiversity. Riparian areas when in proper functioning condition will provide for the greatest number of beneficial uses which may include use by wildlife as habitat, forage for livestock, and where possible high quality fisheries. (See map on page 45)(See chart, Appendix C on page 39).

### **Allotment Resource Objectives**

The 1986 Kemmerer RMP identified the following allotment specific objectives/opportunities for the Smithsfork Allotment:

- Need to improve distribution by developing water for livestock, salting and herding away from bottoms.
- Need to determine proper stocking rate through monitoring.
- Potential for vegetation manipulation on loamy range sites.
- Need to implement grazing system based on phenological requirements of the vegetation.
- Need to implement watershed management plan.

The following objectives have been developed through coordination between the Technical Review Team and the Smithsfork Steering Committee as general objectives for the allotment:

Overall general objective: Maintain, improve, or enhance upland and riparian area conditions in the Smithsfork Allotment.

### **Desired Plant Community**

The Desired Plant Community (DPC) is the plant species assemblage which currently exists, or which, through natural succession and/or management actions, is reasonably sustainable on an ecological site, and which best supports land use goals. The DPC must be a plant community, consistent with the site potential and it becomes the focus of management. DPC goals and objectives will be considered achieved as long as the communities being monitored are approaching or are within reasonable range of these defined targets.

#### **Riparian Vegetation Desired Plant Community Objectives**

The Desired Plant Communities (DPC) should have desirable, deep-rooted herbaceous and (in some cases) woody vegetation (including, but not limited to sedge, rush, willow, currant, chokecherry, birch, cottonwood, aspen, dogwood, and native riparian grasses and forbs) with a short-term intent of achieving proper functioning condition on streams. The site specific objectives on the greenline monitoring transects established in the late 1990's by the Greenline TRT can be found in the Allotment Evaluation written in November, 2000. These transects are located on the Greenline Map on page 50. These have also been listed as specific objectives in the Allotment Resource Specific Objectives section on page 19.

- **Riparian Areas without Willows:**

This desired plant community (DPC) should be achieved within 15 years. In the Greenline evaluation scheduled for 2008, if monitoring shows a particular riparian area has willows, they will be evaluated under the criteria for "Riparian Areas with Willows."

- As identified by site-specific resource objectives; increase or maintain the proportion of desired, deep-rooted riparian species within plant communities along the greenline, which are capable of holding soils, retaining sediment, and buffering the erosive forces of the stream.
- No more than five-percent (5%) of the perennial streambanks, as measured on the greenline transects, should be devoid of vegetation (eroding or agrading).
- Riparian cross-section data will be used to determine site-specific objectives for community types at each monitoring site.

- **Riparian Areas with Willows (currently or in the future):**

The desired plant community (DPC) should be achieved by the year 2020:

- Twenty-five percent (25%) or more of riparian plant communities as measured on the greenline transects should be composed of willows or other desirable woody species. The remainder of the riparian plant communities along the greenline should be composed of desirable, deep-rooted riparian species capable of holding soils, retaining sediment, and buffering the erosive forces of the stream.
- No more than five percent (5%) of the perennial stream banks, as measured on the greenline transects, should be devoid of vegetation (eroding or agrading).
- Riparian cross-section data will be used to determine site-specific objectives for community types at each monitoring site. This will include a percent canopy-cover figure for willow (as needed).
- Age-classes of willow, as measured by stem-count along a belt-transect parallel to the greenline, should consist of:
  - Sixty percent (60%) young/sprouts (less than 4-feet high, single-stem to simple branching, and not seed producing); thirty to forty percent (30% - 40%) mature (greater than 4-feet high, complex branching, more than ten (10) stems, seed-producing); and zero- to ten-percent (0% - 10%) decadent/clubbed/severely-hedged.

### **Upland Vegetation Desired Plant Community Objectives**

Goals for upland vegetation are set at the landscape, rather than at a site-specific level, due to a desire to maintain a healthy mix of plant communities and successional stages across the entire allotment area. An inventory of successional stages on upland sites has not been completed, but the professional opinion of the Technical Review Team (TRT) is that a high percentage of these upland shrub communities are in a late successional stage, and are dominated by decadent and dying plants. The following upland landscape objectives were developed to improve the health of these upland plant communities.

### **Landscape Objectives for Specific Upland Plant Community Objectives**

The following objectives are not intended to enhance or allow implementation of this AMP but are meant to reflect the vegetative conditions which should provide a stable community to enhance the historic range of variability for rangeland health reasons, improved habitat for wildlife, and provide an ecologically sound pattern (similar to naturally expected conditions) on the landscape through time. They are not a measure of the success of the grazing plan per se, but rather will reflect the success of natural fire and/or vegetation manipulation through a variety of methods over time. The attainment goal for 2050 is based on the expectation that the implementation of vegetation manipulation needs to be completed over a long time frame to achieve the diversity of age classes and canopy covers without adversely affecting a large proportion of the allotment at any one time.

- **Wyoming or Mountain Big Sagebrush/Grassland:**

The long-term landscape goal is to attain a mosaic of different successional age classes by the year 2050, 30% of S/G communities in  $\leq 10\%$  sagebrush canopy cover; 40% of the S/G communities in 10-20% sagebrush canopy cover; 30% of the S/G communities in  $\geq 20\%$  sagebrush canopy cover.

- **Aspen:**

The short-term goal is for 15% of aspen sites to be regenerating by the year 2020 with 25% aspen suckers (0' to 4') and 15% saplings (4' to 8'). By 2050 (on a landscape scale), aspen communities should be composed of a mosaic of different age-classes consisting of 30% of the stands with young trees, 50% with mixed ages of young to mature trees, and 20% dominated by mature to decadent trees.

Inspections of the allotment over the last few years have indicated that existing aspen stands have regeneration of different age groups at all stands, some regeneration occurs throughout the stands and not just on the edges.

- **Mixed Mountain Shrub:**

Mountain shrub communities include single-species dominated, or a mix of the following species: antelope bitterbrush, serviceberry, mountain mahogany, snowberry, chokecherry, currant, and Ceanothus. By 2050 (on a landscape scale),

mountain shrub stands should be comprised of a mosaic of different age classes consisting of 30% of the communities in predominantly young shrubs, 50% in a mix of young-to-mature shrubs, and 20% dominated by mature to decadent.

**Allotment Resource Specific Objectives**

The attainment/non-attainment of these objectives will be analyzed after the 2008 and 2012 grazing seasons.

- Attain an average streambank vegetative shade canopy of 40%.
- Bank trample will be allowed on less than 25% of the stream banks.
- Have the Bonneville Cutthroat Trout in the potential but currently unoccupied streams. This objective was stated in the Thomas Fork Habitat Management Plan, dated September, 1979. The creeks listed were Huff Creek, Coal Creek, Little Muddy Creek, and the South Fork of Raymond Canyon.
- The vegetative use level objectives are:
  - b. The stubble height objective for the standing stubble on the green line on the federal riparian areas in all pastures will be an average of 5 inches of standing stubble for Nebraska Sedge, Carex nebraskensis, or Beaked Sedge, Carex rostrata, the identified key species. This use will be measured after all livestock have left the allotment in the fall. Five inches has been identified as the minimum stubble height needed to provide streambank protection for the following spring runoff.
  - b. The use objective for willows in all pastures for willows is 40% of current years growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects as measured after all livestock have left the allotment in the fall. Browsing intensity on willows will be monitored throughout the year and evaluated annually. The nearest young plant (less than 5-foot high, single stem or simple branching, non-seed producing) will be used as the sampled plant. The willow transects are approximately parallel to the stream.
- The BLM Riparian Initiative of 75% of all streams to exist in PFC. The Riparian Initiative goal is to restore and maintain riparian-wetland areas so the 75 percent of more of the areas are in proper functioning condition. (see Appendix C on pg 39)(see map on page 45).

RATING (by federal land miles only) PFC = Proper Functioning Condition; NF = Non-Functional					
	PFC	FUNCTIONAL AT RISK			NF
		UPWARD TREND	NO APPARENT TREND	DOWNWARD TREND	
CURRENT MILES/ PERCENTAGE	10.04 17%	8.90 15%	19.98 34%	12.25 21%	7.69 13%
OBJECTIVE MILES/ PERCENTAGE	44 75%	15 25%	0 0%	0 0%	0 0%

- Reach the Bank Stability criteria of Good (7) or better on all greenlines. The bank stability criteria is a tool that gives a numeric rating to different types of vegetation and/or rocks and anchored logs and averages the values for these different components and rates the greenline for this value, (see Appendix B on pg 38)

Name	GL CURRENT*		GL PLANNED RATING	
	numerical	stability	numerical	stability
North Corral Creek	7.5	GOOD	7.5*	GOOD
Muddy Creek	3.94	POOR	7	GOOD
Upper Little Muddy	4.86	POOR	7	GOOD
Little Muddy-out	5.04	MODERATE	7	GOOD
Lower Coal Creek	8.61	GOOD	8.61*	GOOD
Coal Creek-out	5.70	MODERATE	7	GOOD
SF Raymond	2.58	VERY POOR	7	GOOD
Upper Huff Creek	5.75	MODERATE	7	GOOD
Huff Creek-out	6.45	MODERATE	7	GOOD
Lower Stoner- <b>State</b>	7.54	GOOD	7.54*	GOOD
Mill Creek- <b>State</b>	3.36	POOR	7	GOOD
Mill Creek-federal	3.80	POOR	7	GOOD
First Creek	3.67	POOR	7	GOOD
Lower Raymond	3.43	POOR	7	GOOD
* these streams are in better condition than 7 and the BLM wants to maintain them in at least their current condition				

- The Greenline Technical Review Team (TRT) read and established specific greenline objectives in 1996, 1998, 1999, and 2000. The complete data collected to date on the greenline transects and listed objectives established by the TRT are shown in (appendix D on pg 40), (see map on pg 50). They are now scheduled to be read in 2008. This gives the fully implemented AMP one grazing cycle before being analyzed. The Greenline objectives have been established on the vegetative components. The National Riparian Team in their 1998 report listed “the inclusion of density or cover objectives for willows within a certain time frame is unrealistic, especially in areas where they have been chemically removed”.

STREAM	LOCATION	COMMUNITY TYPE	YEAR OBSERVED		OBJECTIVE YEAR
NORTH CORRAL CREEK	T25N, R119W, S. 2 NWNE	COMMUNITY TYPE	1996		2008
		SEDGE	75		85
		WILLOW	-0-		5
MUDDY CREEK	T26N, R118W, S. 20 SWNW	COMMUNITY TYPE	1996	2000	2008
		SEDGE	10	11	40
		WILLOW	0	0.1	5
UPPER LITTLE MUDDY	T27N, R119W, S. 24 NWNW	COMMUNITY TYPE	1996	1999	2008
		SEDGE	22	39	50
		WILLOW	0	0	5
LOWER LITTLE MUDDY OUTSIDE EXCLOSURE	T27N, R119W, S. 1 NENW	COMMUNITY TYPE	1996	1999	2008
		SEDGE	40	49	70
		WILLOWS	0	0	5
LOWER COAL CREEK	T28N, R119W, S. 27 SENE	COMMUNITY TYPE	1996		2008
		SEDGE	52		70
		WILLOW	0.5		10
COAL CREEK OUTSIDE EXCLOSURE	T28N, R119W, S. 13 SWNW	COMMUNITY TYPE	1996	1999	2008
		SEDGE	54	53	75
		WILLOW	0	0	10
SOUTH FORK RAYMOND CANYON	T26N, R119W, S. 4 SE	COMMUNITY TYPE	1998	2000	2008
		SEDGE	2	6	30
		WILLOW	0.5	0.7	5
UPPER HUFF CREEK	T29N, R119W, S. 15 SWNW	COMMUNITY TYPE	1998	2000	2008
		SEDGE	22	44	45
		WILLOW	0	0.2	10
HUFF CREEK OUTSIDE EXCLOSURE	T28N, R119W, S. 34 SWSE	COMMUNITY TYPE	1998	2000	2008
		SEDGE	41	42	70
		WILLOW	0	0	5
LOWER STONER STATE	T28N, R119W, S. 36 NWSE	COMMUNITY TYPE	1996	2000	2008
		SEDGE	60	73	75
		WILLOW	0	4	5
MILL CREEK STATE	T26N, R118W, S. 31 NWSW	COMMUNITY TYPE	1996	1998	2008
		SEDGE	17	10	55
		WILLOW	0	0	10
MILL CREEK FEDERAL	T26N, R119W, S. 35 NENE	COMMUNITY TYPE	1996	1998	2008
		SEDGE	25	20	55
		WILLOW	0	0	5
FIRST CREEK	T25N, R119W, S. 2 NWNE	COMMUNITY TYPE	1996	1999	2008
		SEDGE	22	29	60
		WILLOW	0	0	5
LOWER RAYMOND C.	T26N, R119W, S. 5 NWNW	COMMUNITY TYPE	1996	2000	2008
		SEDGE	0	0.4	20

WILLOW	7	17.5	15
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**D. RANGE IMPROVEMENTS**

These projects are currently planned or built to facilitate livestock management and achieve improvement in resource conditions. (See maps 48 and 49).

The BLM has spent well over \$150,000.00 and constructed several fences to divide the allotment into separate management use areas or pastures, and to date the BLM has constructed six spring developments and have three springs and three to four pits planned for 2005.

The projects listed below as proposed are not needed to implement the four-pasture grazing system. They will augment the current grazing system and allow more flexibility and enhance the potential for greater distribution through out the allotment.

- o Raymond Canyon watershed fence –The Permittees contributed monies and labor to complete this fence; Trout Unlimited and the Wyoming Game and Fish Department also contributed funds to this fence: **BUILT- 2001**
- o Muddy Ridge and Pine Knoll cross fences – **BUILT-2001**
- o Preacher Hollow-Smithsfork Boundary fence north of bridge - calendar year 2002- **CONSTRUCTED** on property line by Smithsfork Grazing Association
- o North Stoner Fence – **BUILT** in calendar year 2002
- o Coal Creek division fence – **BUILT** in calendar year 2002
- o Smithsfork/Inchauspe boundary fence – **BUILT**-calendar year 2003
- o Forest Boundary Gap Fence –**INVESTIGATIONAL**, calendar year 2005/2006; This fence is proposed to be built on the boundary line between the Forest Service and BLM or on BLM land.
- o Investigate/build fence around Shale Hollow to control cattle in the drainage if needed.
- o Expand the fence on the south end of South Raymond Creek to close off cattle movement from North Mill Creek into the South Fork of Raymond Canyon. Fence location would be on State of Wyoming land. It is felt by the permittees, and the Wyoming Game and Fish Department this additional fence is needed to stop cattle from trailing from North Mill Creek into the South Fork of Raymond Canyon.
- o Move fence on the Smithsfork River between Preacher Hollow and the Smithsfork allotment to the road, starting from the bridge going north on the west side of the road. See EA on Smithsfork fences. This would be considered because of the difficulty in maintaining the fence in its current location.
- o Right of Way fence above the cattle guard on Highway 89 in Salt Canyon.

• SPRINGS/PITS

NAME	YEAR	TOWNSHIP	RANGE	SECTION	
COAL CREEK PASTURE #1	<b>2002</b>	T 28 N	R 119 W	NW SECTION 23	
COAL CREEK PASTURE #2		2005	T 28 N	R 119 W	NW SECTION 23
LITTLE MUDDY DRAINAGE #3	<b>2002</b>		T 27 N	R 119 W	SE SECTION 15
SOUTH STONER CREEK #4	<b>2002</b>		T 27 N	R 119 W	SE SECTION 12
LITTLE MUDDY DRAINAGE #5	<b>2002</b>		T 27 N	R 119 W	NW SECTION 13
BEAVER DAM #6		2005	T 27 N	R 119 W	NE SECTION 6
COAL CREEK #3	<b>2003</b>		T 28 N	R 119 W	SE SECTION 13
SOUTH STONER #2		2005	T 27 N	R 118 W	SW SECTION 6
THIRD CREEK BASIN #1	<b>2003</b>		T 26 N	R 119 W	NE SECTION 10
THIRD CREEK BASIN #2		2005	T 26 N	R 119 W	SE SECTION 2
SHALE HOLLOW PIT		2005	T 28 N	R 119 W	SECTIONS 18 & 19
SOUTH END PIT #1		2005	T 25 N	R 119 W	NE SECTION 25
SOUTH END PIT #2		2005	T 25 N	R 119 W	SE SECTION 24
			T 26 N	R 119 W	SW SECTION 3
IGO SPRING	ALREADY FENCED IN RAYMOND CANYON				

- **EXISTING PITS/SPRINGS ON THE ALLOTMENT:**

Section 19, SW¼, T26N, R118W: Public land  
 Section 31, NW¼, T26N, R118W; State land  
 Section 35, SE¼, T26N, R119W; WSA  
 Section 5, SW¼, T26N, R118W; Muddy Ridge, Public land  
 Section 24, SE ¼, T25N, R119W, spring development on south end

- **PROPOSED PIPELINES and OTHER PROJECTS:**

- Investigate pipeline out of Quealy Reservoir for south end, tank, pipeline, and troughs.
- Investigate pipeline along the Igo Speedway north from top of Huff Lake to above Coal Creek: pipeline, pumping source, tank, and troughs.
- Fence area on North Stoner and pipe water to saddle to the south
- Develop plan to protect White Canyon spring, possibly using outside funds and labor, located in WSA

- **VEGETATIVE MANIPULATION PROJECTS**

The objective of vegetative manipulation projects is to improve the vegetative community to provide historic range of variability for rangeland health reasons, improved habitat for wildlife, and livestock forage. The primary purpose of vegetative projects is not to provide additional livestock feed. Project areas can be used to redistribute livestock off of the riparian areas to provide additional rest for these areas. Possible burn/treatments could be coordinated with the WG&F LBRCR.

The Lower Bear River Completion Report (LBRCR) states on page 63 that “Long-term AMP’s should be in place prior to implementation of vegetation treatments to assure the necessary rest (minimum of 2 years) and follow-up management”. The LBRCR proposed several treatment sites. The treatments (projects) and their descriptions are listed on pages 63 to 65, these are shown on the proposed projects map on page 49:

- (TS1)-Upper Raymond Creek Burn, 4000 acres; **WSA\***
- (TS2)-Sublette Mountain Burn, 2000 acres; **WSA\***
- (TS3)-North Raymond Mountain Burn, 2500 acres; **WSA\***
- (TS4)-Upper Little Muddy Creek Burn, 5500 acres; Little Muddy Pasture; State and federal lands

This area encompasses roughly 5,500 acres of aspen, mixed shrub and sagebrush community types. Aspen communities are located in the upper portions of the Little Muddy drainage. Mixed shrub communities are located in mid to upper elevation areas with sagebrush dominated communities at lower elevations. Vegetation objectives focus on aspen and aspen/conifer mixed stands while treating sagebrush and mixed shrub communities. A mosaic of 50 – 60 %treated acres would be desirable in this area. Little Muddy Creek historically supported a population of BRC. Enhancing both the upland and riparian habitats in this area could greatly increase habitat for the BRC trout. This entire area lies with transitional big game range with few animals residing here in the summer. The Smithsfork CRM has currently been working on grazing management practices to improve the vegetative resource in this area. A minimum of two years rest will be needed for proper vegetative response and establishment after treatment.

- (TS5)-Upper Coal Creek Burn, 10000 acres; Coal/Dipper Pasture State and federal lands

This area encompasses roughly 10,000 acres (some on the Inchauspe Allotment) of aspen, mixed shrub, and sagebrush community types. A few conifer dominated communities can be found along the north boundary of this area. Recommended objectives are to treat 50 to 70% of the area with prescribed fire and focus on aspen and aspen/conifer mixed communities while providing a mosaic within the sage/mixed shrub communities. BRC populations are found in the Coal Creek drainage and could expand their distribution into unoccupied stream reaches

with improved habitat conditions. Summer/transitional habitat and parturition areas for big game species are provided within this area.

- (TS6)-Muddy Creek Burn, 11,500 acres; South Pasture Private, state, and federal lands

This proposed prescribed burn treatment encompasses roughly 11,500 acres of aspen, mixed shrub, and sagebrush. The majority of the area is dominated by sagebrush communities with some mountain shrubs. The west side of this area has many pockets of aspen and aspen/conifer mixed stands. Vegetation objectives for this area should concentrate efforts on sagebrush communities and increasing herbaceous production and ground cover. Treatment activities should also target all aspen communities, especially conifer encroached stands. The area supports a few deer, elk, and moose during the summer and fall. This proposed treatment area also encompasses approximately 80% of the Reed Allotment. Treatments should help alleviate future wildlife and livestock concentration areas. Livestock control and management (AMP) is greatly needed after the rest period in this area since excessive use by livestock has been previously documented.

- (TS7)-Huff Creek Burn, 6500 acres; **WSA\***
  - (TS8)-North Quealy Burn, 5500 acres. **+ 90 % WSA\***; private and federal
- \* see statement on projects in the WSA on page 27

The objectives for vegetative treatments must reflect the vegetation objectives in the plan. Treatments always need to be based on current vegetation condition and objectives for that area. They are not based on the need for cattle or wildlife feed. Although these are added benefits, they are just added benefits for addressing a vegetation issue.

Some possible tools would be to reintroduce fire (a natural process) back into the ecosystem to rejuvenate fire dependant species such as aspen and mixed mountain shrub communities. An objective would be to increase the diversity and age class of vegetation species in a certain area, see page 20 for upland landscape.

Conditions for vegetative manipulation projects:

- Minimum treatment size for burning is approximately 4000 acres, with 2000 acres planned to be “black”.
- If a herbicide is used, treatment areas can be much smaller and have a smaller percentage of shrub mortality, i.e. 40% canopy reduction with spike.
- Treatments can begin after an adequate grazing system is in place and control of livestock has been demonstrated (livestock in proper pastures at the specified times).
- Burns: Are there adequate fine fuels? (This may require one or more years rest prior to treatment.)
  - Can fire be kept in the project area?
  - Is the area accessible?
  - Is there cheatgrass/rabbit brush and is it in a low elevation area?
- Post treatment management: Minimum two growing seasons rest.
- The authorized AUMS will be reduced through non-use for the post treatment rest period.
- Treatment areas may be fenced to provide adequate rest for the post treatment period.
- Permittees will assume construction and maintenance of the post treatment protection projects.
- Cost share will be determined prior to treatment.
- Projected cost for burns is \$15.00 per acre.
- Projected cost for chemical treatment is \$20.00 per acre.
- Treatments will be scheduled to provide at least 3 years between projects.
- No more than 15% (13,500 acres) of the allotment will be treated per decade.

- **MAINTENANCE**

All projects which have maintenance assigned and/or decisioned will have the annual maintenance completed prior to livestock turnout in the spring. The Smithsfork Grazing Association will notify the Kemmerer Field Office in writing prior to turnout that all projects located in the spring use pasture have been maintained before livestock use will be authorized. The projects in the later use pastures will be maintained prior to turnout in these pastures. The projects will be inspected during the summer to verify compliance.

This language was included in the Final Decision issued for the Smithsfork Fences on March 27, 2002, and was not appealed. This language was also included in the Notice of Field Managers Proposed Decision issued for the Smithsfork Springs on April 9, 2002, which went final without protest and was not appealed. "In prior discussion with the grazing permittees and the Smithsfork Grazing Association, it has been agreed that the fences will be maintained by the Smithsfork Grazing Association from assessments made to the Association by each permittee. This is the most efficient and effective process for completing these projects and is the desired approach for accomplishing maintenance of these projects to effect improvement of the resources. However, if this process is not effective in completing the maintenance of these projects, the individual grazing permittees who are permitted to run cattle on the Smithsfork Allotment will be responsible for maintenance of these projects.... 'If an operator does not pay his assessment for maintenance of the fence, or does not maintain his assigned portion of the fence, this operator will not be authorized to turn-out any livestock until the assigned percentage of responsibility for the fence is completed.' "

- NO PERMANENT RANGE IMPROVEMENT PROJECTS WILL BE APPROVED WITHIN THE BOUNDARY OF THE WSA.
- WATER HAULING

Water hauling is already being used on the allotment. Permittees can use the existing roads and trails to haul water and put troughs on private/state land without clearances. If troughs are placed on federal land, proper clearances will be obtained prior to the water being hauled. Troughs can be placed for 30 days on a temporary basis. Permanent sites will need a complete project report, including NEPA. Water hauling would greatly enhance cattle distribution in the summer and fall. Water could be hauled to portions of the Igo Speedway, to Muddy Ridge, or to the ridge between Mill Creek and North Corral Creek.

## **E. MONITORING PLAN AND SCHEDULES**

### **Monitoring and Evaluation Results**

As required in the 2001 Final Decision, an allotment evaluation incorporating 2001, 2002, and 2003 data measured on federal lands was completed following the 2003-grazing season. Monitoring was also completed after the 2004 grazing season. Results of the evaluation and monitoring are:

- The south pasture was the spring use pasture in **2001**. No federal land transects met the 5-inch stubble height objective for Nebraska Sedge in the spring use pasture for stubble heights. Average stubble height was 3.42 inches. Willow use averaged 67% exceeding the 40% use standard on the seven transects measured in August.
- The south pasture was the spring use pasture in **2002**. One transect out of 11 transects in the spring use pasture met the 5-inch stubble height objective for Nebraska Sedge, as measured on federal land. Average stubble heights were 4.8 inches on the Nebraska Sedge on the federal riparian areas.
- The spring use was split between the South Pasture and the Coal-Dipper Creek Pasture in **2003**. No transect on federal land met the 5-inch stubble height objective for Nebraska Sedge, in either spring use pasture. Average stubble height on Nebraska Sedge was 3.33 inches. Average stubble height on Nebraska Sedge in Raymond Canyon was 4.8 inches. Use on willows measured on 3 transects averaged 53% and exceeded the 40% use level.
- The spring use was split between the South Pasture and the Coal-Dipper Creek Pasture in **2004**. In September: In the south pasture: For stubble height on Nebraska Sedge, one transect was above the 5 inch stubble height requirement; four transects were close to the objective, and one was below the objective by over an inch. Average stubble height on Nebraska Sedge was 4.43 inches. Average willow use was 32 percent on the willows found on the greenline transects on Mill Creek. Over 20 willows were found on the Green Line transect on the Federal on Mill Creek. When the Greenline were previously read in 1996 and 1998, no willows were noted on the transect.

In the Coal Dipper Creek pasture, the average stubble height on Nebraska Sedge is 5.23. The average bitten percentage on willows measured 15 percent on the transects. A large number of willows are showing up on the transect in the SW of 25; approximately 75 willows were observed in this transect.

In the Stoner-Little Muddy Pasture stubble height on Nebraska Sedge averaged 5.48 inches. Average

willow use was 57%. No willows were found during the greenline transect in 1999. The use on the transects in Huff Creek averaged 6.78 inches.

In Raymond Canyon stubble height on Nebraska Sedge averaged 11.2 inches with little to no use on the sedges. Average willow use was 3.5% with the greatest use measuring at 11.6%.

If beaked sedge was measured, as proposed in this AMP, the 5 inch stubble height would have been met where ever the beaked sedge was found. Beaked sedge is showing up in spots where it has not been found before.

Photos were retaken at several spots where photos have been taken in the past, 1989, 1993, 1994, 1996 and 1998. The photos show an improving trend. See photos.

The data collected from the studies described below will be used to determine if the plan objectives are being achieved.

## **Description of Short-Term Monitoring Methods**

### **1. Climatic Data**

Precipitation information can be obtained from National Oceanic and Atmospheric Administration (NOAA) stations located in the proximity of the allotment.

### **2. Actual Use Data**

It is essential that the period of use and the numbers of livestock using the allotment be known. This information is used in conjunction with vegetation trend and utilization data to evaluate management.

Actual use data for livestock will be obtained from permittees by Actual Use Reports, provided by the BLM, within forty-five (45) days after the close of the grazing period of the allotment.

The BLM will monitor livestock numbers and brands to insure that only authorized livestock graze the allotment. Ear tagging will be implemented for the 2005 grazing season to assist in the monitoring effort.

### **3. Use Criteria/Pasture Move Indicators:**

Data collected during the grazing period will be utilized to check move dates and to make adjustments of use during the current use period and to determine if livestock are to be moved **prior** to the authorized move dates:

- Spring Use-Start Pasture: The following indicators will be used to help determine when to remove cattle from the spring pasture, or when to shift distribution within this pasture: 1) Animal behavior, i.e. (cattle starting to hang in the riparian areas); 2) forage selectivity; 3) willow use criteria. The allowable use criteria is 3 inches on Nebraska sedge or 5 inches on Beaked Sedge and for willows is 40% of current year's growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects.
- Second Use Pasture-Summer: Livestock will be removed when the allowable use criteria of 3 inches on Nebraska sedge or 5 inches on Beaked Sedge is met and for willows is 40% of current year's growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects.
- Third Use Pasture-Summer: Livestock will be removed when the stubble height on either species in the sedge community approaches 5 inches. For upland utilization, livestock will be moved when 50% utilization of current year's growth, as measured by the Key Forage Plant Method, is reached on grasses. The allowable vegetative use level objective for willows is 40% of current year's growth based on the average percent of leaders browsed on approximately 20 plants on the federal riparian transects.
- Last Pasture-Off Pasture: Livestock will be removed when the stubble height on either species in the sedge community approaches 5 inches. For upland utilization, livestock will be moved when 50% utilization of current years growth, as measured by the Key forge Plant Method, is reached on grasses. The allowable vegetative use level objective for willows is 40% of current year's growth based on the average percent of leaders browsed on approximately 20 plants on the federal riparian transects.

### **4. Stubble Height Data**

Monitoring data may be collected using any of the approved methods listed in the following table. Descriptions of the methods may be found in the monitoring manuals listed at the end of this AMP in appendix B. Copies of the handbooks are available for review or copying at the Kemmerer Field Office.

ASSESSMENT METHODS

METHOD	FREQUENCY
1. Key Forage Plant-Uplands**	Annual
2. Stubble Height-riparian**	Annual
3. Willow Use, percentage by leader**	Annual
** Monitoring forms are presented as part of Appendix A, pages 35, 36, and 37.	
Specific areas for monitoring in Raymond Canyon are shown on map on pg 51.	

5. Other Use Data

The BLM and the Grazing Association will monitor livestock numbers and brands to insure that only authorized livestock graze the allotment. BLM, with assistance from the Wyoming Game and Fish Department, will monitor Raymond Canyon prior to use in the spring to assess impacts from winter wildlife use. (See map 39 for sites)

Stream Stability rating on all streams, (see Appendix B).

Bank trample. Trample means actual soil displacement and/or physical damage to the bank.

Big game population levels and use on the Smithsfork Allotment will be monitored in cooperation with the Wyoming Game and Fish Department. This data will provide an indication of intensity and trend in wildlife use. All data collected for big game herds is summarized yearly in the WGFD Region IV job completion reports.

If monitoring indicates that wildlife are contributing to not meeting vegetation objectives, the Wyoming Game and Fish Department will be contacted to address potential population conflicts.

Description of Long-Term Monitoring Methods

Vegetation Trend

Trend in the condition of plant communities will be monitored by any of the following methods. Descriptions of the methods may be found in the Wyoming Rangeland Monitoring Handbook and other BLM publications, (see appendix A). Copies of the handbooks are available for review or copying at the Kemmerer Field Office.

SCHEDULE FOR LONG TERM MONITORING

	2005	2006	2007	2008	*	2009	2010	2011	2012	*
Vegetative Use Levels	X	X	X	X	2	X	X	X	X	2
Riparian Photo Points	X	X	X	X	0	X	X	X	X	0
Proper Functioning Condition			X	X	0			X	X	1
Greenline				X	8				X	2
DPC					*				X	*

\* EVALUATION AFTER THE 2008 AND AGAIN AFTER THE 2012 GRAZING SEASON

## TREND METHODS

METHOD	FREQUENCY
Vegetative Use Levels	Every year
Riparian Photo Points	2-4 year intervals
Proper Functioning Condition	4-8 year intervals
Riparian Greenline & Stream Cross Section	4 year intervals
Line Intercept & Belt Transects	Pre & Post Burn
Desired Plant Communities	8-12 year intervals

Currently the landscape objective can only be monitored in terms of percent of the allotment with recent vegetation treatments. When an inventory of plant communities and in particular the age classes of the shrub communities within the allotment is completed, Desired Plant Community monitoring, then the progress toward meeting the landscape objectives can be measured.

### Greenline Monitoring

The greenline measurement is designed to account for a continuous line of vegetation on each side of the stream even when this line of vegetation occurs several feet above or away from the stream's edge. It is important that the greenline sampling process follow these continuous lines of vegetation rather than the seasonally fluctuating water's edge. This helps ensure that measurements are made on the best representative area for evaluating changes in vegetation over more than one sampling period. An evaluation of the vegetation composition of the greenline can provide a valuable indication of the general health of a riparian area (successional status) as well as the current strength of the streambanks in buffering the forces of water (streambank stability). (See map on pg 50).

## EVALUATION

Annual review and evaluation of each year's grazing operations is fundamental to the success of any grazing plan. If problems in livestock management occur or if lack of progress towards achieving resource objectives is apparent, corrective adjustments should be developed in a timely manner.

### 1. Annual Review

Short-term data will be analyzed, interpreted, and evaluated during the grazing season and on an annual basis. The results of these evaluations will be available to the interested public of the allotment through an annual monitoring report. Necessary changes in this plan will be developed through the CRM process and will be coordinated with the interested publics. Necessary changes in management may include: salting locations, herding practices, revised utilization limits, fencing, water developments, vegetation treatments, shorter grazing periods, or partial closures of the allotment.

### 2. Use Adjustments:

Annual reductions based on the non-attainment of the Annual Vegetation Use level Objectives, will be implemented through changes in the grazing permits and annual authorizations for the grazing year following the consecutive 2-year period when the objectives have not been met. When objectives have been met, including 75% of all streams meeting PFC and no streams rated below FAR-upward trend apparent, increases in AUMS may be considered.

### 3. Long-term Evaluation:

An allotment evaluation of short-term and long-term data will be conducted in 2008 at the end of the first four-year grazing cycle, and again after the 2012 grazing season. If the evaluation indicates the grazing plan is failing to meet or make progress towards resource objectives, appropriate adjustments will be developed. Necessary changes may include those described above as well as creation of additional pastures, reevaluation and modification of resource objectives, or adjustments in the authorized livestock grazing use (i.e., season of use), or recommending adjustments in big game management. Changes to the management plan as a result of the long-term evaluation will be implemented through agreement or decision.

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## APPENDIX A: MONITORING HANDBOOKS AND REFERENCE

### **Monitoring the vegetation Resources in Riparian Areas: Alma H. Winward, General Technical Report RMRS-GTR-47**

“Plant species that become established along edges of streams, rivers, ponds, and lakes. These species play a significant role in attaining and maintaining proper functioning of riparian and aquatic ecosystems.

Percent composition of each community type from the greenline measurements is used to make the successional status and bank stability ratings.

Greenline Bank Stability—the greenline stability rating is calculated by multiplying the percent composition of each community type along the greenline by the stability class rating assigned to that type. These index values are then summed and compared to the appropriate rating classes.

**Wyoming Rangeland Monitoring Guide, August 2001.** Wyoming Range Service Team, member Federal agencies are BLM, FS, and NRCS.

### **Rangeland Monitoring: Utilization Studies, T. R. 4400-3, 1984**

Utilization Study Methods 5.23, Key Forage Plant Method

Twig length measurement method 5.31, page 34, age's and sizes

### **Utilization Studies and Residual Measurements: Interagency Technical Reference, 1996**

Stubble Height: page 51

Key Species Method (formerly the Modified Key Forage Plant Method): page 81

Browse utilization and age/size classes: Page 131

### **Herbaceous Stubble Height as a Warning of Impending Cattle Grazing Damage to Riparian Areas: General Technical Report PNW-GTR-362, September 1995**

“Conclusions: Unacceptable impacts from livestock grazing can be avoided in riparian areas by recognizing that a shift in cattle preference can occur as the 3-inch stubble height is approached. Assume undesirable impacts will occur at any time as stubble height changes from 3 inches to  $\frac{3}{4}$  inch as a result of major shifts in livestock preference.”

**Stubble Height and utilization Measurements: Uses and Misuses: Agricultural Experiment Station, Oregon State University. Station Bulletin #682, May 1998, page 43.**

**Riparian Area management: TR 1737-16, Revised 2003. A user guide to assessing Proper Functioning condition and the Supporting Science for Lentic Areas.**

**Riparian Area management: TR 1737-15, 1998. A user guide to assessing proper Functioning conditions and the Supporting Science for Lotic Areas.**

**Interim Management Policy And Guidelines For Lands Under Wilderness Review: Update Document H-8550-1, 11/10/87**

H. Rangeland Management, page 44

2. Grazing

- a. Changes in Grazing. In both “grandfathered” and non-“grandfathered” grazing, changes in number and kind of livestock within the WSA or in period of use may be permitted, as long as: (1) The changes do not cause declining condition or trend of the vegetation or soil, and (2) the changes do not cause unnecessary or undue degradation of the lands. + Caution is required to ensure the wilderness characteristics of the area are not impaired. Any proposed changes in levels of livestock use must be based upon monitoring data which clearly indicate additional forage is available or a reduction in livestock use is needed.
- b. Prevention of Unnecessary or Undue Degradation. The “grandfathered” clause does not freeze “grandfathered” grazing uses at the same level as existed on October 21, 1976. Section 603(c) of FLPMA provides the mandate to prevent unnecessary or undue degradation of the lands as it applies to “grandfathered” uses. Thus, the “grandfathered” provision will not prevent implementation of reductions in authorized use.

**University of Idaho Stubble Height Study Report:** University of Idaho Stubble Height Review Team, July 2004.

**Instruction Memorandum No. WY-2005-018:** Expires:09/30/2006  
Livestock Management Following Vegetative Treatment

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RANGE UTILIZATION  
KEY FORAGE PLANT METHOD

District		Date	Examiner
Planning Unit	Allotment		Pasture
Vegetation type		Class of Livestock	
Season of Use		Grazing management System	
Transect Location			

Class		Key Species					
Interval	Interval Midpoint (x)	Species		Species		Species	
		Frequency (f)	(f) x (x)	Frequency (f)	(f) x (x)	Frequency (f)	(f) x (x)
Slight 0-20	10						
Light 21-40	30						
Moderate 41-60	50						
Heavy 61-80	70						
Severe 81-100	90						
Total							
Average = $\frac{\sum fx}{\sum f}$ * Utilization							

Remarks (Use back of sheet if necessary)

\* Where f = the frequency of numbers or observations within each class interval (( f column), x = the class interval midpoint (x column), and  $\sum$  = the summation symbol

No Use	0	The rangeland shows no evidence of use by grazing animals
Slight (1 – 20%)	10	The rangeland has the appearance of very little grazing. The herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.
Light (21 – 40%)	30	The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 of the growth of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants have been removed.
Moderate (41 – 60%)	50	The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key herbaceous species remains intact. No more than 10% of the number of low value herbaceous forage plants is utilized. Browse plants appear rather uniformly utilized and 41 to 60% of the available leader growth of key browse plants have been removed.
Heavy (61 – 80%)	70	The rangeland has the appearance of complete search. Key herbaceous species are almost completely Utilized with less the 10 percent of the current seedstalks remaining. Shoots of rhizomatous grasses Are missing. More than 10 percent of the number of low value herbaceous browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80% of the available leader growth of the key browse plants have been removed.
Severe (81 – 100%)	90	The rangeland has a moon appearance and there are indicators of repeated coverage. There is no Evidence of reproduction of current seedstalks of key herbaceous species. Key herbaceous forage Species are completely utilized. The remaining stubble of preferred grasses are grazed to the soil Surface. There is no evidence of terminal buds and d81 to 100% of available leader growth on the key Browse plants has been removed. Some, and often much, of the 2 <sup>nd</sup> and 3 <sup>rd</sup> year's growth of the Browse plants has been utilized. Hedging is readily apparent, and the browse plants are more Frequently broke.

ALLOTMENT:		DATE:		EXAMINER:		
LOCATION:						
1/4		SECT.		TOWNSHIP:		RANGE:
KEY SPECIES:						
GREENLINE		MEADOW		WILLOW USE		
					NOT BITTEN	BITTEN
1		1		1		
2		2		2		
3		3		3		
4		4		4		
5		5		5		
6		6		6		
7		7		7		
8		8		8		
9		9		9		
10		10		10		
11		11		11		
12		12		12		
13		13		13		
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15		15		15		
16		16		16		
17		17		17		
18		18		18		
19		19		19		
20		20		20		
21		21		21		
22		22		22		
23		23		23		
24		24		24		
25		25		25		
Total 1 – 25/	Average/	Total 1 – 25/	Average/			
						% Bit:
REMARKS						

LINEAR METHOD: MEASURE TALLEST LEAF LENGTH TO TOE ON STEP-TOE TRANSECT  
UTILIZATION STUDIES AND RESIDUAL MEASUREMENTS,  
INTERAGENCY TECHNICAL REFERENCE - 1996  
METHODS-RESIDUE MEASURING-STUBBLE HEIGHTS, PAGE 53

**APPENDIX B: BANK STABILITY RATING DATA**

Bank Stability Rating based on existing greenline data (1995-2001): Wyoming rangeland Monitoring Guide, August 2001. Wyoming Range Service Team, member agencies include the BLM, FS, and NRCS. See map in maps section for greenline transects.

Name	GL CURRENT*		GL PLANNED RATING	
	numerical	stability	numerical	stability
First Creek	3.67	POOR	7	GOOD
Mill Creek-federal	3.80	POOR	7	GOOD
Mill Creek-state	3.36	POOR	7	GOOD
North Corral Creek	7.5	GOOD	7	GOOD
Muddy Creek	3.94	POOR	7	GOOD
Coal Creek-out	5.70	MODERATE	7	GOOD
Lower Coal Creek	8.61	GOOD	7	GOOD
Little Muddy-out	5.04	MODERATE	7	GOOD
Upper Little Muddy	4.86	POOR	7	GOOD
Lower Stoner	7.54	GOOD	7	GOOD
Huff Creek-out	6.45	MODERATE	7	GOOD
Upper Huff Creek	5.75	MODERATE	7	GOOD
SF Raymond	2.58	VERY POOR	7	GOOD
Lower Raymond	3.43	POOR	7	GOOD

\* taken from existing Greenline Data: 1998-1999

Numerical Rating	Stability Rating
9 – 10	Excellent (very high)
7 – 8	Good (high)
5 – 6	Moderate
3 – 4	Poor (low)
0 - 2	Very Poor (very Low)

Some of the greenline objectives for 2008 will actually put the stability rating above 7. Some of the greenline objectives will be below 7, but the over all objective is still 7. The differences will be rectified during the 2008 allotment evaluation.

## APPENDIX C: PROPER FUNCTIONING CONDITION DATA

Watershed	Stream	RATING (by federal land miles only)				
		PFC = Proper Functioning Condition; NF = Non-Functional				
		PFC	FUNCTIONAL AT RISK			Non-Functioning
Upward Trend	Not-Apparent Trend		Downward Trend			
Smithsfork	1 <sup>st</sup> & 2 <sup>nd</sup>				0.15	0.6
	Third Creek		0.25		0.25	
	Big Muddy			2.12		1.13
	Mill Creek			2.75	2.5	1.16
	Chalk Creek			1	0.1	1.8
Bear River	Groo Canyon	0.6		0.1		
Thomas Fork	Cliff Creek	1.25		1.0		
	Coal Creek	3.0	2.5	5	4.75	
	Dipper Creek			1.4	0.35	
	Huff Creek	4.86	3.14			
	Little Muddy		3.01	4.93	0.42	
	Raymond Creek	0.33		1.16	1.75	3
	Stoner Creek			0.52	1.98	
	<b>TOTAL MILES</b>	<b>10.04</b>	<b>8.90</b>	<b>19.98</b>	<b>12.25</b>	<b>7.69</b>
	<b>PERCENTAGE</b>	<b>17%</b>	<b>15%</b>	<b>34%</b>	<b>21%</b>	<b>13%</b>

### PROPER FUNCTIONING CONDITION

Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with waterfowls, thereby reducing erosion and improving water quality; filter sediment, capture bed load, and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. The functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water, and vegetation.

### FUNCTIONAL--AT RISK

Riparian-wetland areas that are in functional condition but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

### NONFUNCTIONAL

Riparian-wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, etc, as listed above. The absence of certain physical attributes such as a floodplain where on should be are indicators of nonfunctioning conditions.

## **APPENDIX D: GREENLINE TRANSECTS and OBJECTIVES**

### **GREENLINE TRANSECTS**

Greenline transects were established at locations on each of the streams on the allotment. The Greenline transects were set up following the methods in BLM Handbook TR 1737-8 with some slight modifications such as recording more detailed data in the field and then summarizing the data into the format in the handbook. Detailed protocol is available in the Kemmerer Field Office. Locations were selected based on where the stream would fall within the potential allotment pastures under consideration at that time. The stream type (a representative sample type) and influences of exclosures were also considerations in locating the transects on the streams. Transects were established in the riparian exclosures to determine the vegetation baseline and potential of the sites. The data from these transects would be used to establish a target for objectives for the transects outside of the exclosures. Data from transects within the exclosures is not presented.

When the transects were set up the plan was to reread transects at intervals appropriate for the rate of expected change. Each transect was to be reread at least at a five year interval. Two transects were scheduled for rereading in 2001 and do not have any comparative data at this time. Both these transects were determined to be close to potential or would not change significantly in the short term so were scheduled later.

The numbers presented in the data tables represent the percentage of a community type as part of the total measured length of all community types occurring on the greenline transect. The majority of community types are composed of both dominant and subdominant plants. These dominant and subdominant plant groupings were recorded in the field in detail down to one foot lengths. The field data was summarized by community types and then converted in to percentages of the transect. For the objectives and the observed percentages in the tables, the community types were combined into groupings of the effectiveness of the plants at protecting the stream or the appropriateness of finding the plant species in a healthy riparian community. Plant communities that were a significant percentage of the transect and were appropriate to the riparian area were listed separately in the tables. Most transects were 350 to 400 feet of stream length. The plant communities were recorded on both banks so each transect consisted of 700 to 800 feet of community types.

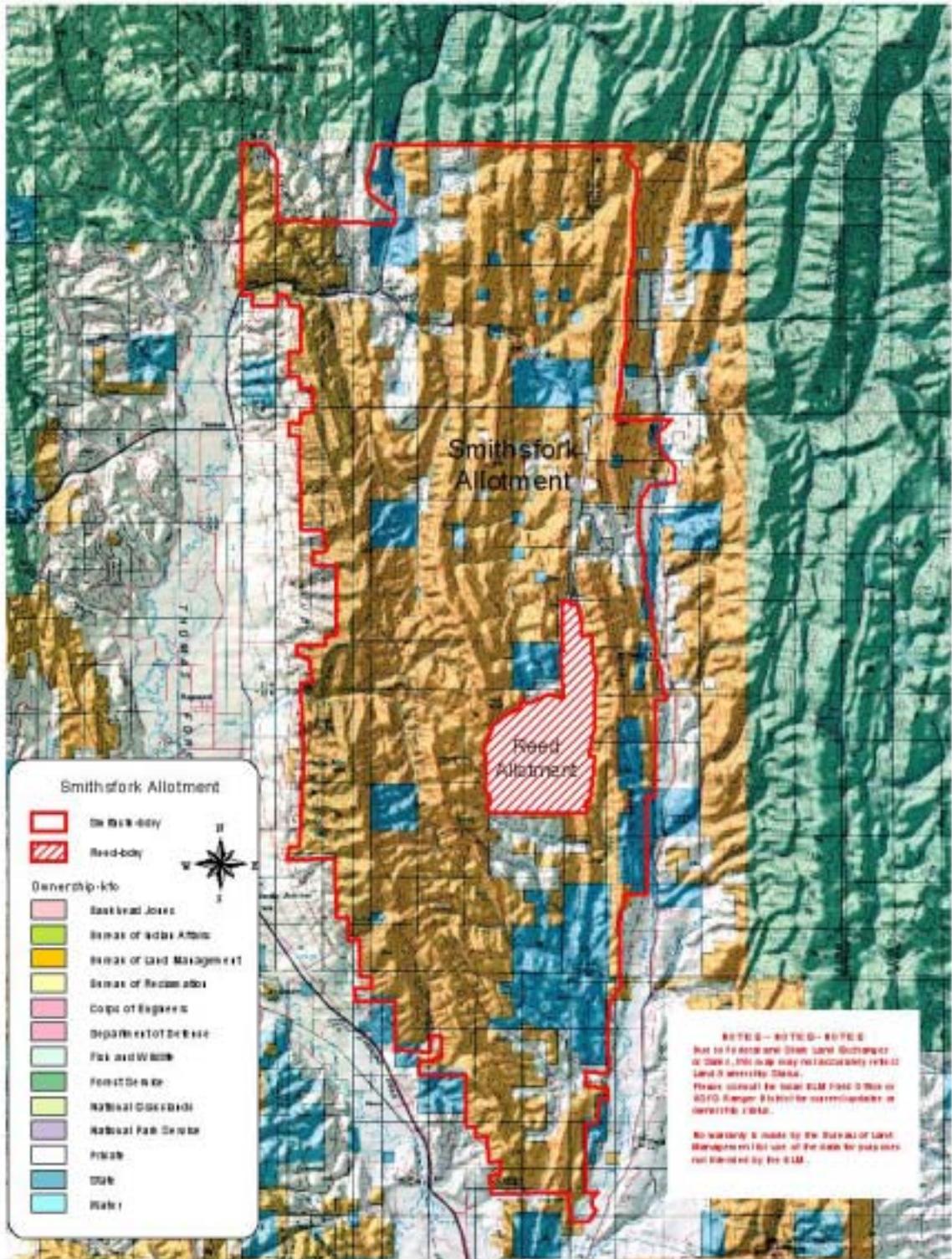
The UPLAND community type is a generic category that includes several non-riparian plant communities. All of the upland type usually occurred along stream banks that had no vegetation along the soil/water contact zone and usually occurred on the outside of meanders along cutbanks. As the floodplain develops and reduced stream energies occur, UPLAND should decrease as vegetation establishes on toe slopes of the cut banks or along the soil/water contact zone of the cut banks.

BAREGROUND is unvegetated soil usually located in the floodplain and is flat enough that riparian species should exist on this site. BAREGROUND could also include areas that were heavily trampled.

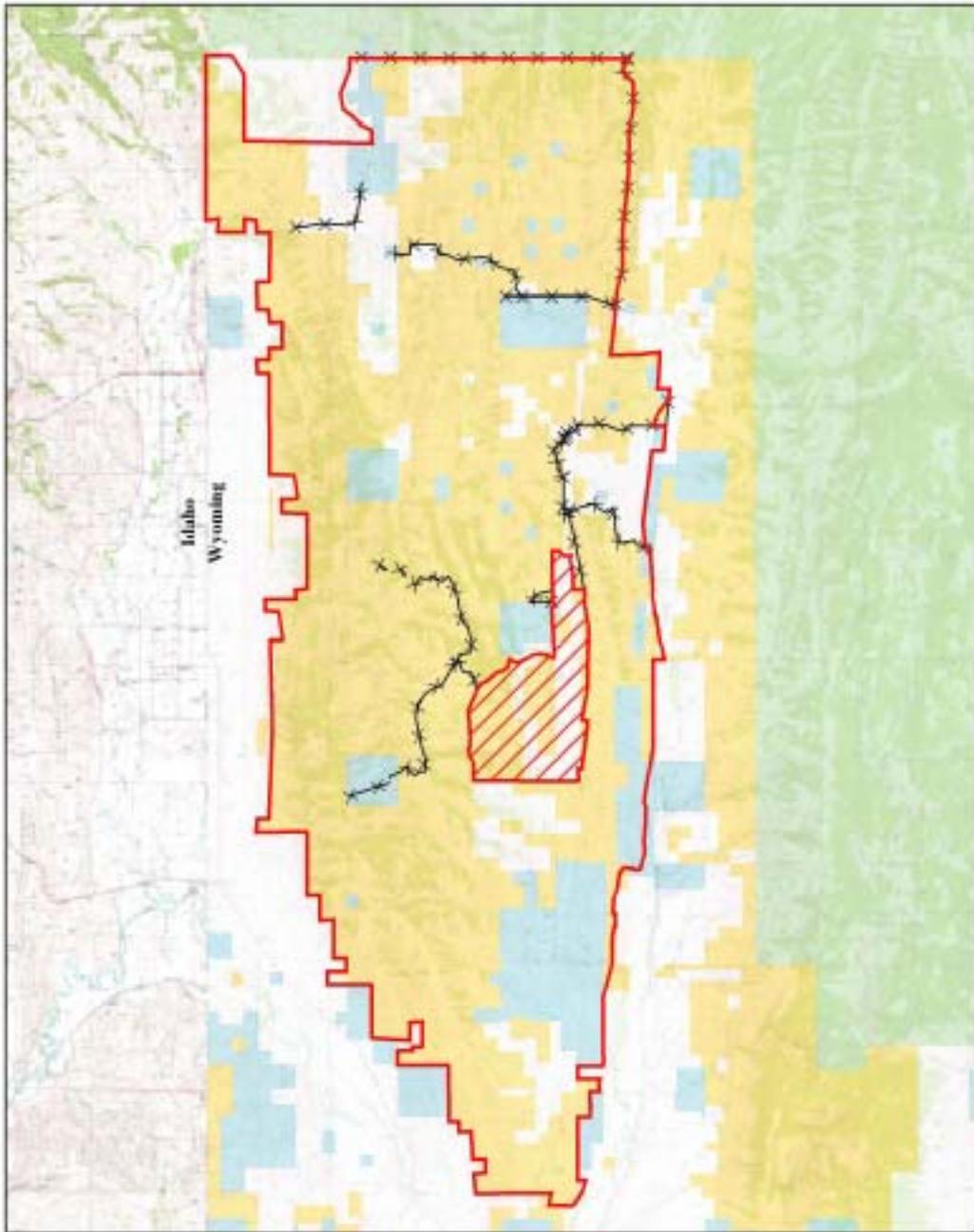
The category listed as OTHER is composed of the community types or plants that are found in riparian areas but are shallow rooted and are not effective in holding the streambanks together. Many of the plants in this category are also early seral stage plants that would be expected to decrease as the riparian area recovers.

WILLOW community type was recorded only if the willow plants were rooted on the greenline or if willow canopy was an overstory to the greenline. A belt transect was run along the greenline to detect presence or absence of willows along the stream and to establish a density of plants in various age classes. A Belt 6 feet wide and centered on the greenline was used. Willows rooted in the transect were recorded.

Objectives for these transects are projections of the percentage needed to provide minimal habitat or represent the level of improvement expected after five years. The percentages are also based on professional judgment and experience with similar streams and changes in management. The percentages for objectives in the tables are target numbers but may vary plus or minus five percent and still be considered as meeting the objectives.



GENERAL TOPO MAP FOR ALLOTMENT

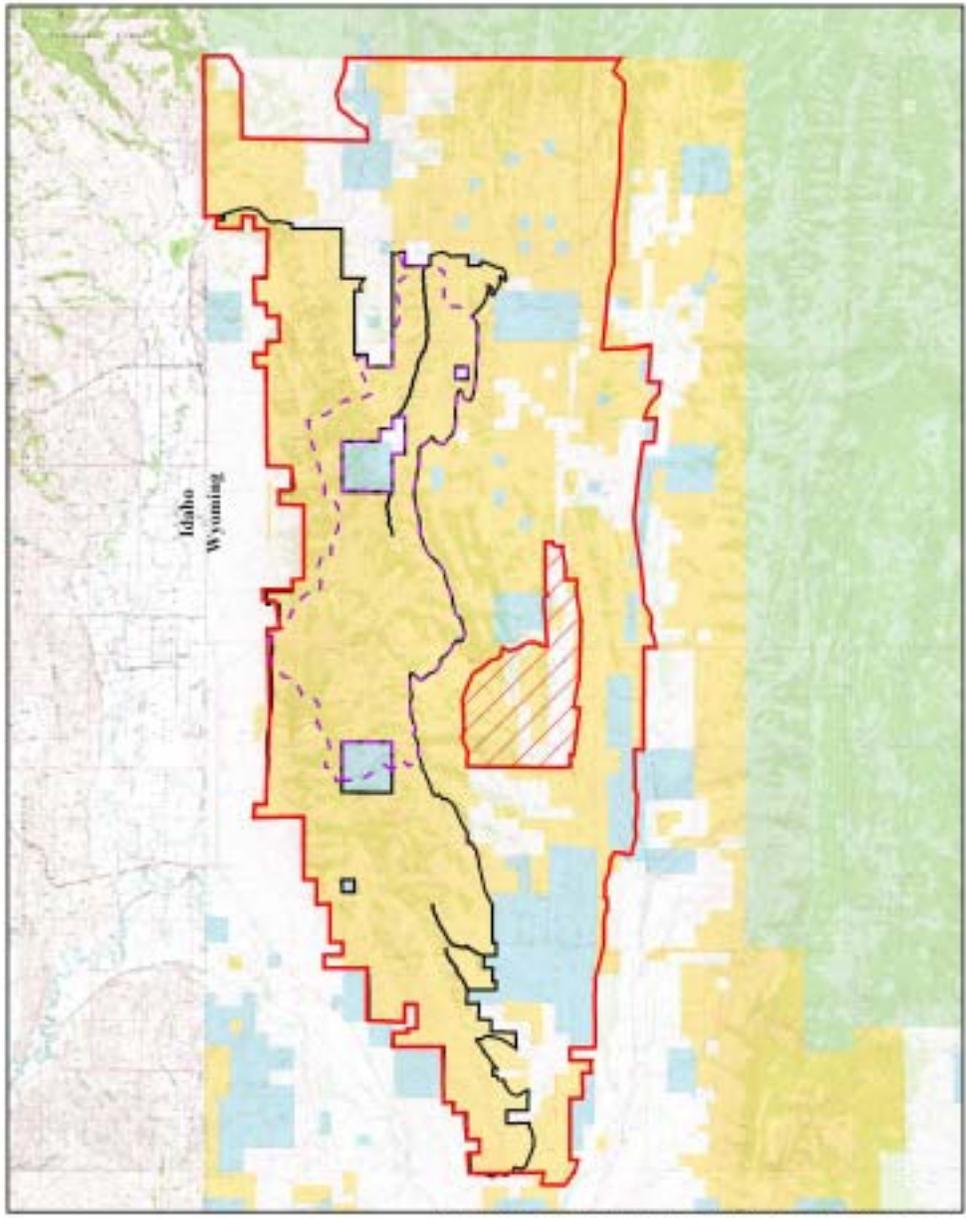


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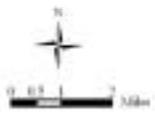


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GENERAL MAP FOR ALLOTMENT

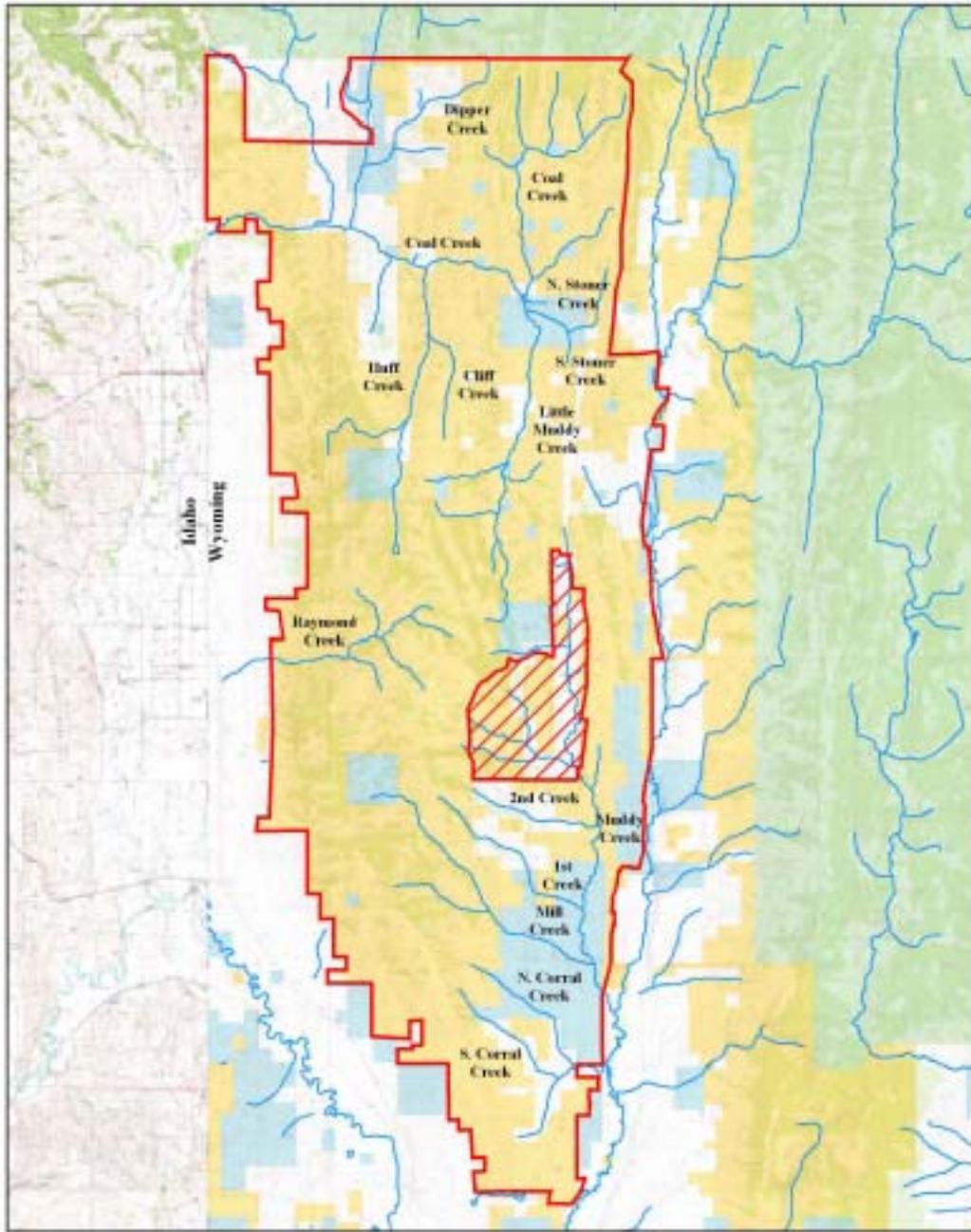


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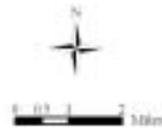
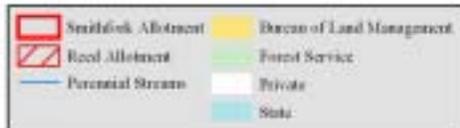


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WILDERNESS STUDY AREA BOUNDARY: ACEC BOUNDARY

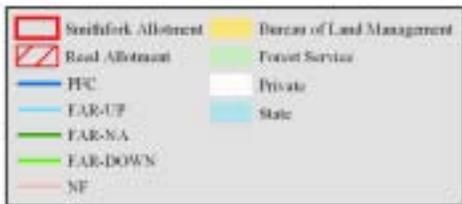
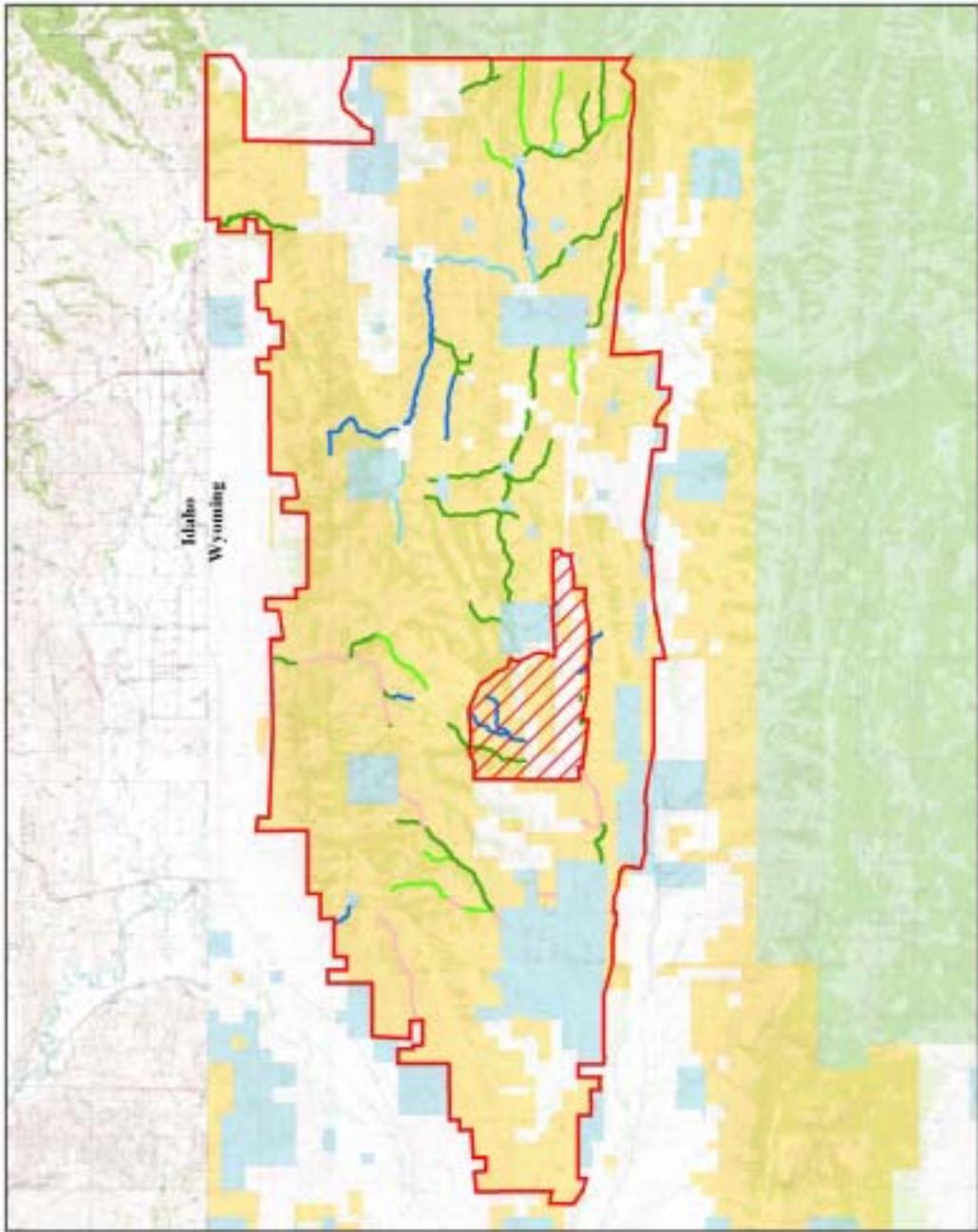


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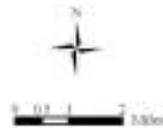


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STREAMS ON THE SMITHSFORK ALLOTMENT

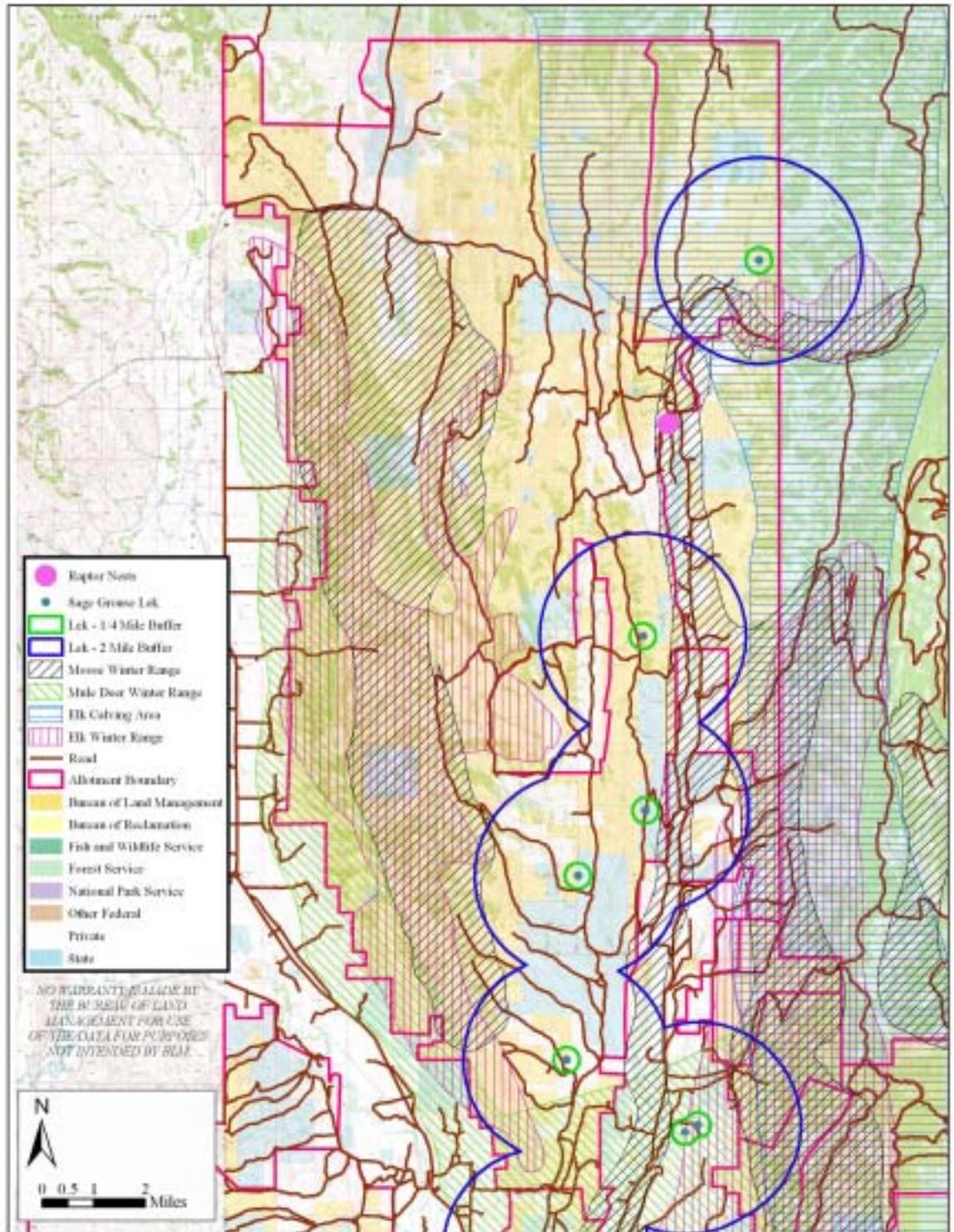


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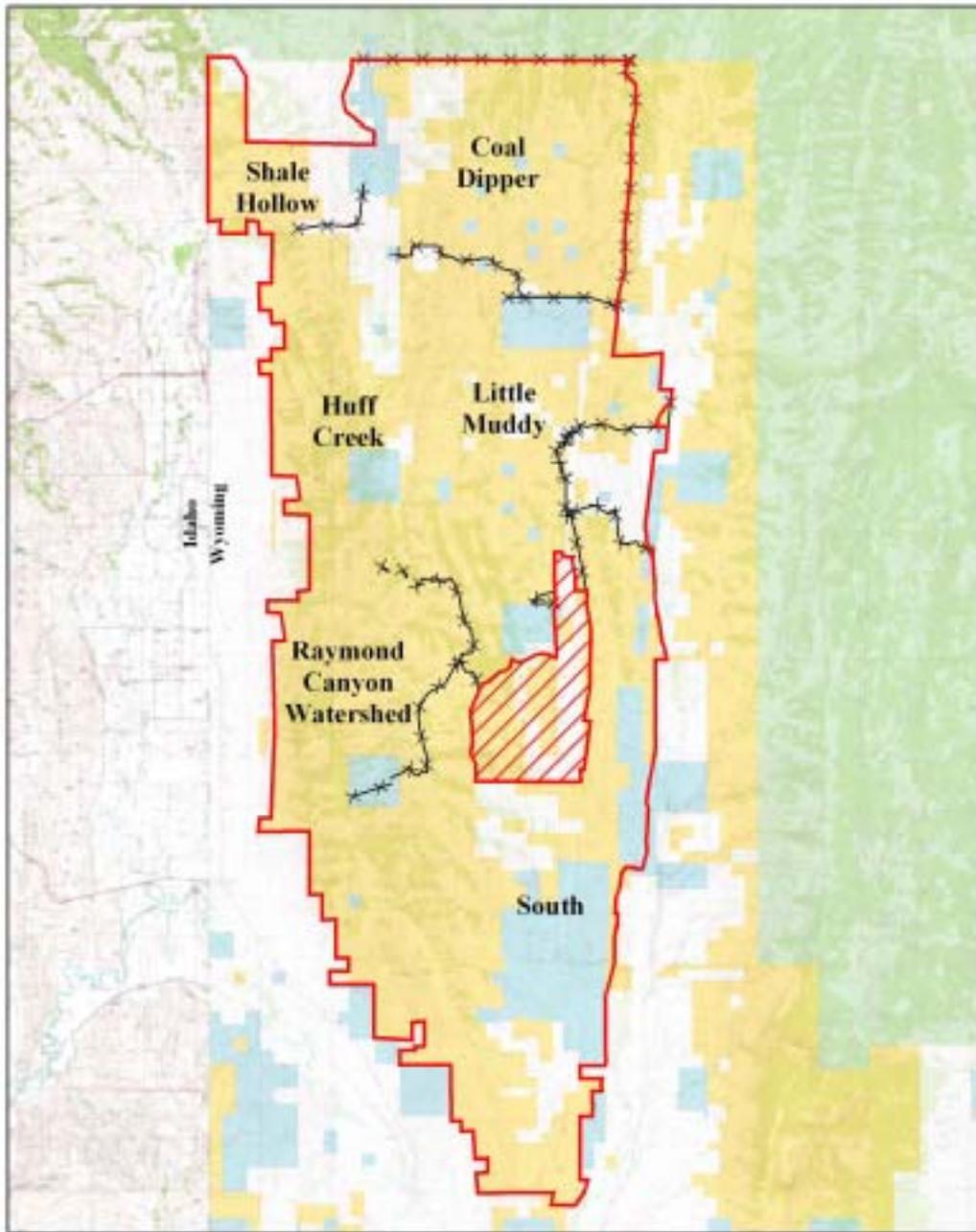


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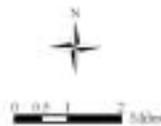
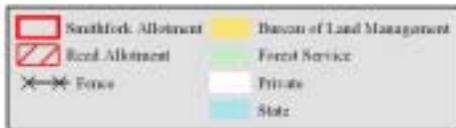
PFC RATING ON FEDERAL STREAMS



WILDLIFE, SAGE GROUSE LEKS, EAGLE NEST

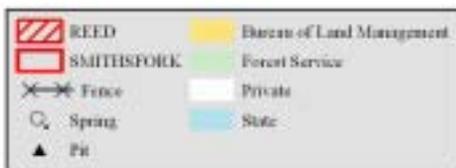
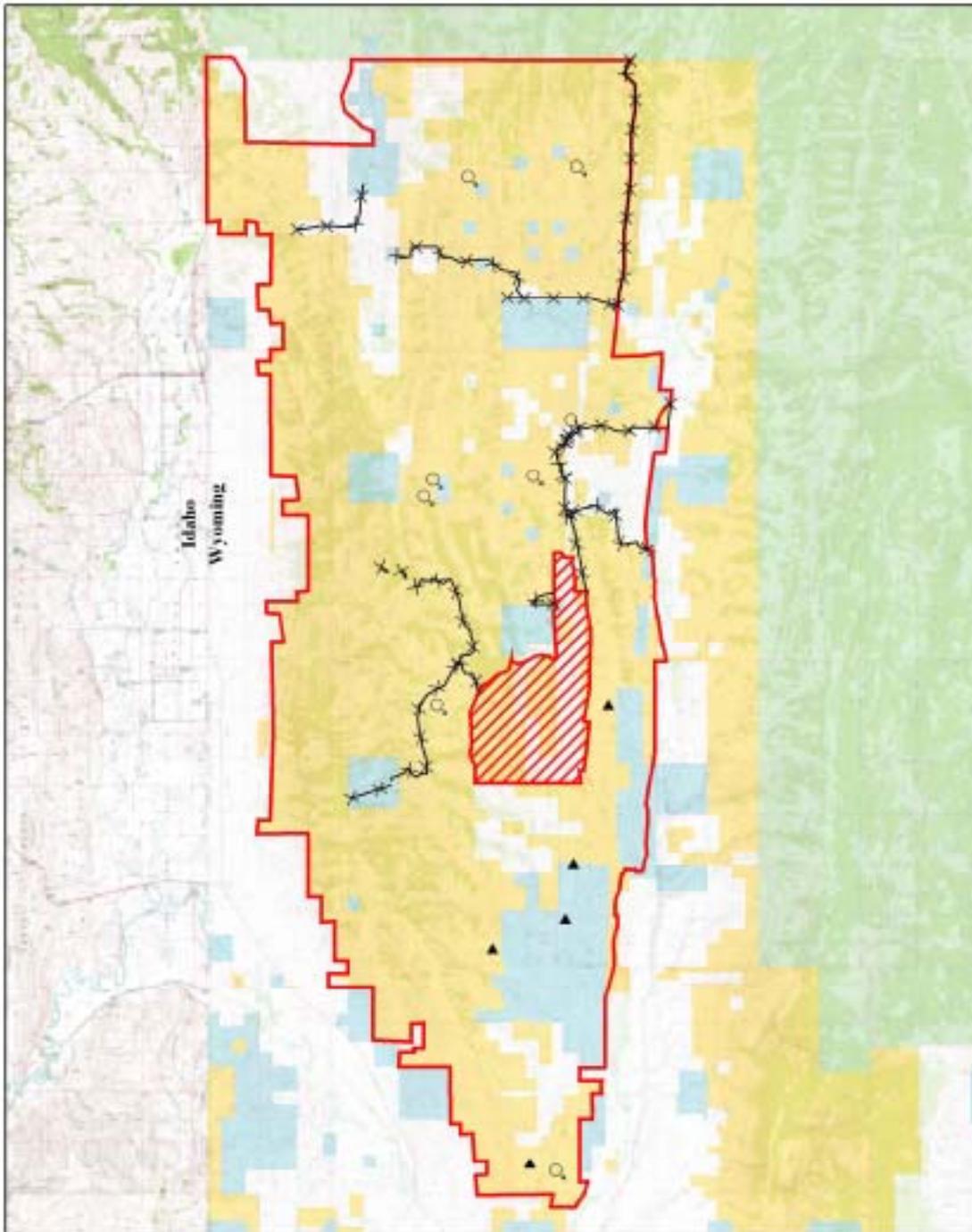


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PASTURES ON THE ALLOTMENT: FOURTH CREEK HOLDING PASTURE

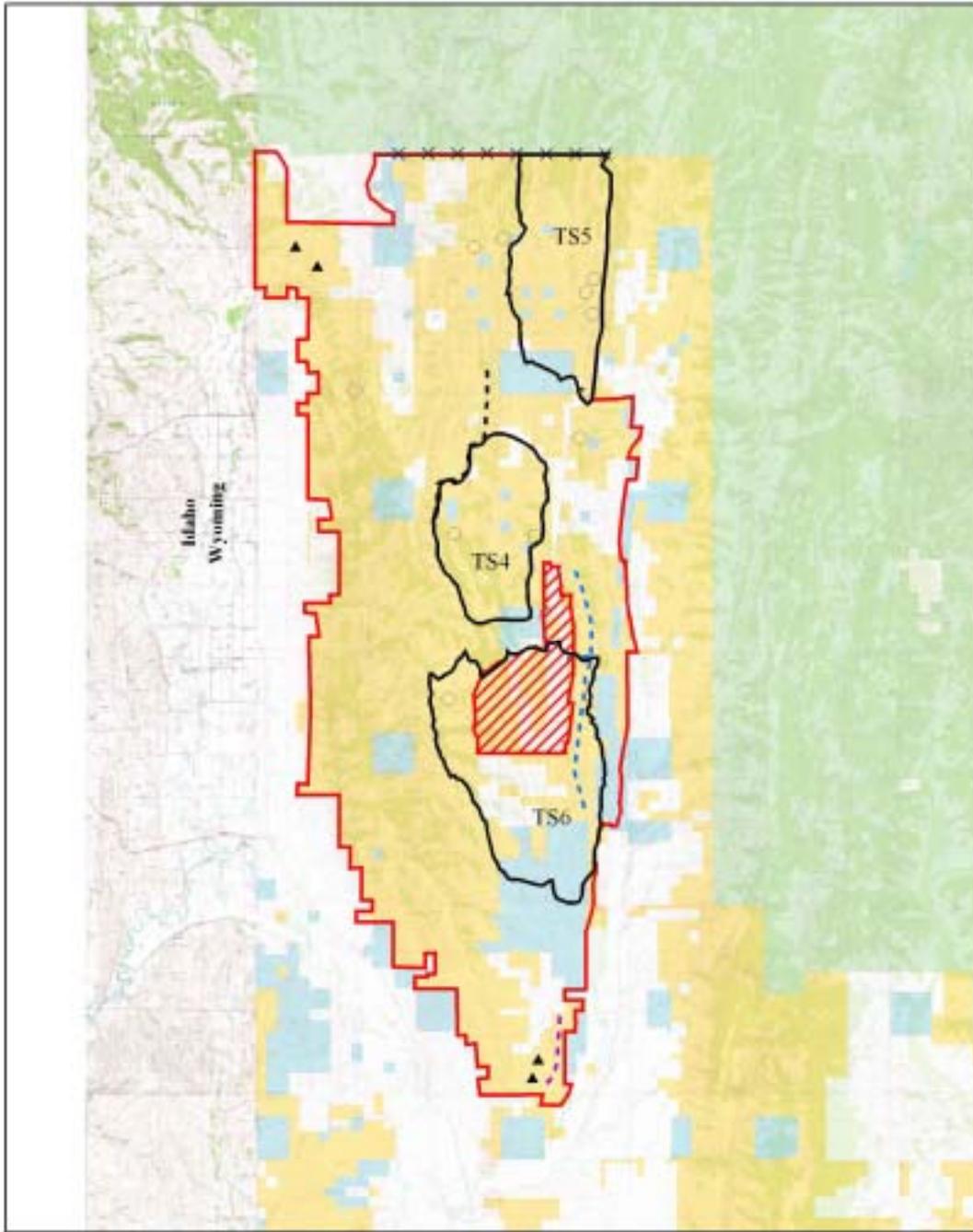


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EXISTING PROJECTS

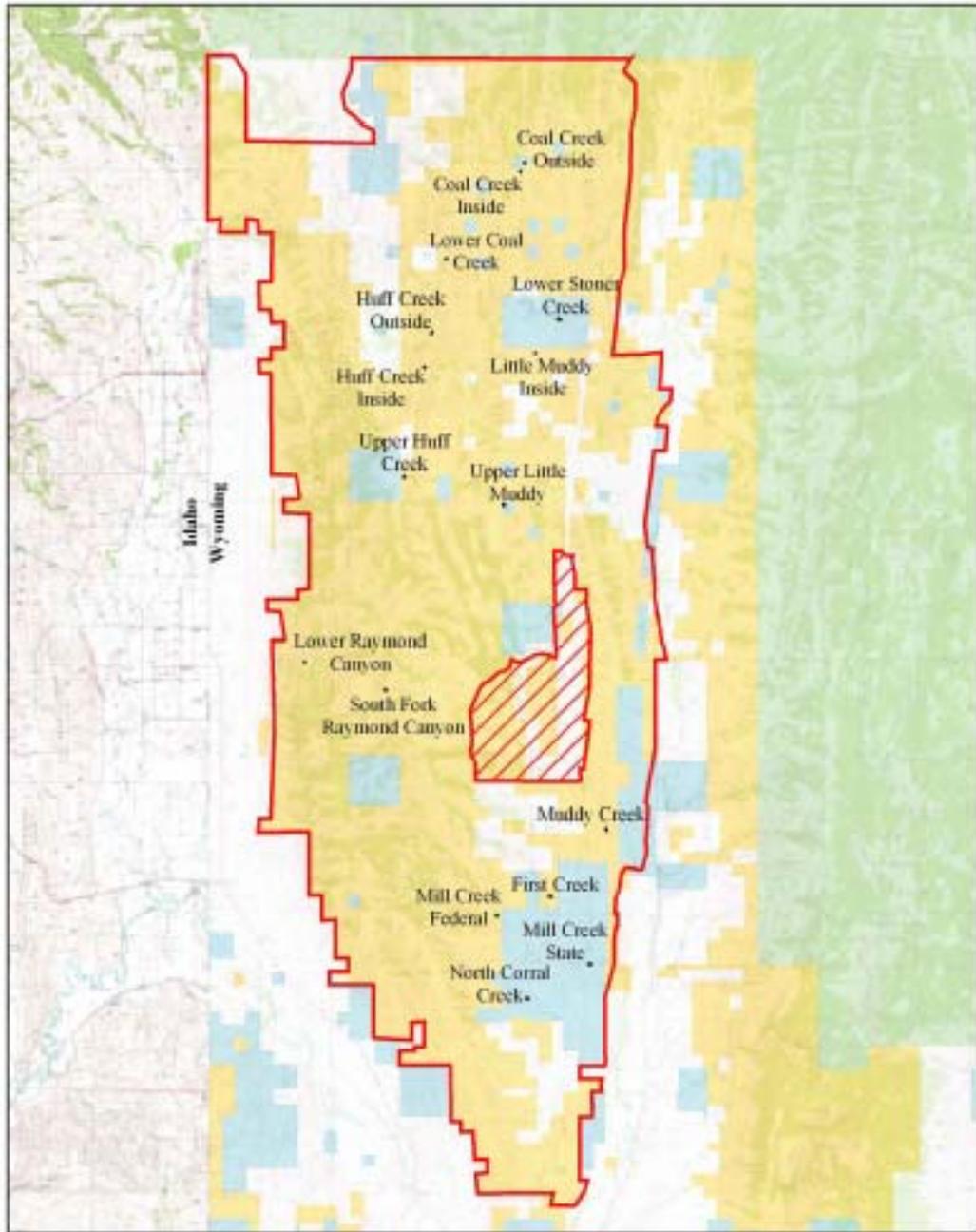


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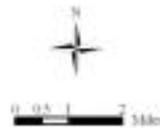
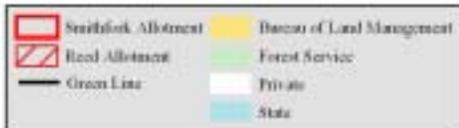


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PLANNED/PROPOSED PROJECTS



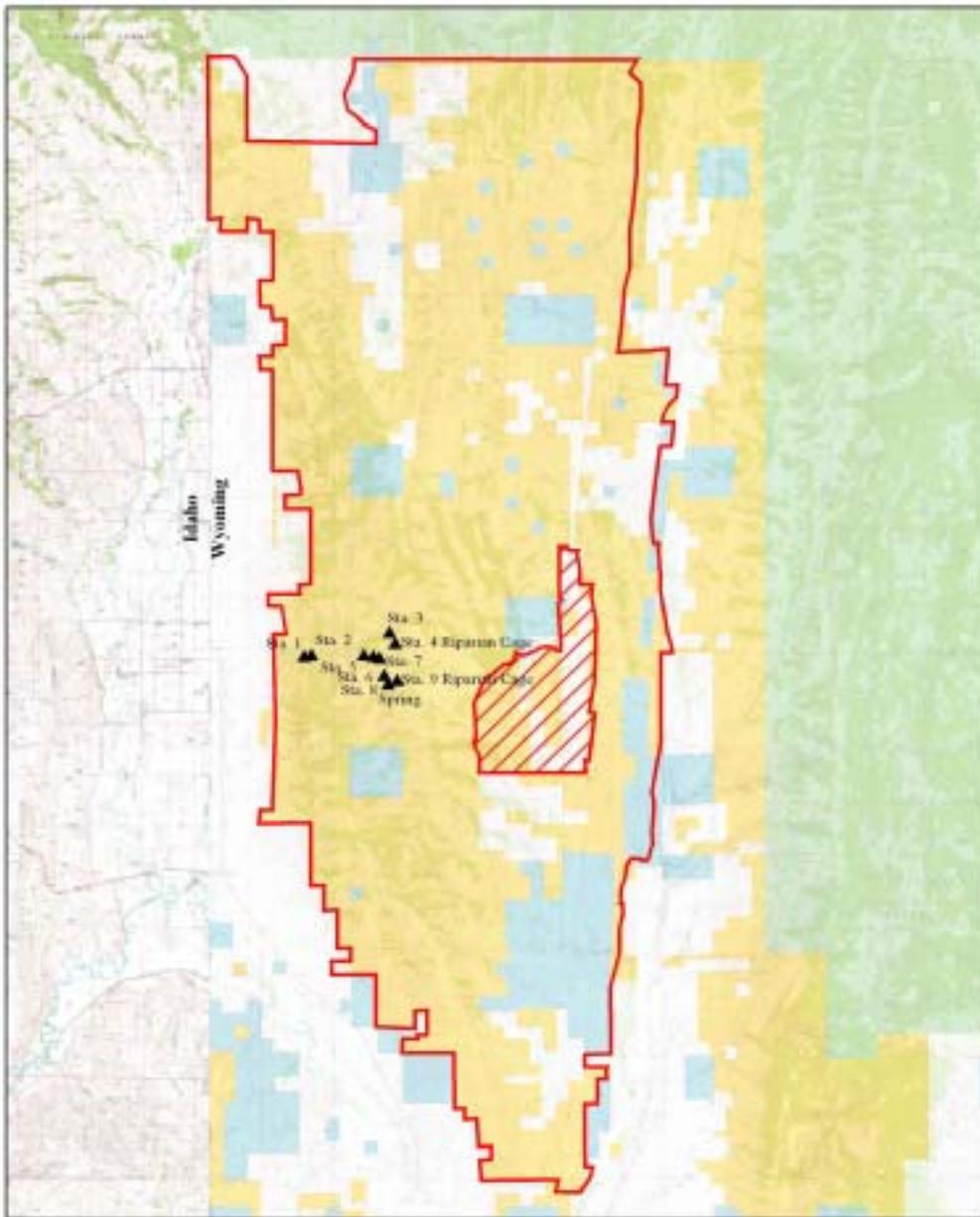
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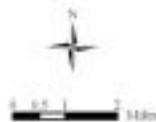
**NOTICE -- NOTICE -- NOTICE**  
 Due to Federal and State Land Exchanges or Sales, this map may not accurately reflect Land Ownership Status. Please consult the local BLM Field Office or USFS Ranger District for current updates or ownership status.

GREENLINE TRANSECTS

# MONITORING SITES, RAYMOND CANYON



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**NOTICE -- NOTICE -- NOTICE**  
 Due to Federal and State Land Exchanges or Sales, this map may not accurately reflect Land Ownership Status. Please consult the local BLM Field Office or USFS Ranger District for current updates or ownership status.

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## APPENDIX E: PHOTOS

All “after” photos were taken in September, 2004.

- **PAGE 55**      **SOUTH FORK RAYMOND CANYON**
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- **PAGE 57**      **SOUTH FORK RAYMOND CANYON**
- **PAGE 58**      **SOUTH FORK RAYMOND CANYON**
- **PAGE 59**      **HUFF CREEK, SECTION 34, T28N, R119W**
- **PAGE 60**      **LITTLE MUDDY CREEK, NE SECTION 13, T27N, R119W**
- **PAGE 61**      **NORTH COAL CREEK, NE SECTION 13, T28N, R119W**
- **PAGE 62**      **SOUTH CORRAL CREEK-STATE- SW SECTION 2, T25N, R119W**
- **PAGE 63**      **MILL CREEK, IGO SPEEDWAY, NE SECTION 35, T26N, R119W**
- **PAGE 64**      **MILL CREEK, FEDERAL, NE SECTION 35, T26N, R119W**
- **PAGE 65**      **MILL CREEK, STATE, NW SECTION 36, T26N, R119W**
- **PAGE 66**      **MILL CREEK-STATE-BELOW CULVERTS, SW SECTION 31,  
T26N,R118W**
- **PAGE 67**      **MILL CREEK-STATE-SW SECTION 31, T26N, R118W**
- **PAGE 68**      **MILL CREEK-STATE-GREENLINE, SW SECTION 31, T26N, R118W**

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## SOUTH FORK RAYMOND CANYON

BEFORE-1998



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

**SOUTH FORK RAYMOND CANYON**

BEFORE-1998



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

**SOUTH FORK RAYMOND CANYON**  
BEFORE- GREENLINE-1998



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

**SOUTH FORK RAYMOND CANYON**

BEFORE-GREENLINE-1998



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

**HUFF CREEK, SECTION 34, T28N, R119W**

BEFORE 1994



AFTER 2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

LITTLE MUDDY CREEK, NE SECTION 13, T27N, R119W

BEFORE-1993



AFTER- 2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

**NORTH COAL CREEK, NE SECTION 13, T28N, R119W**  
BEFORE-1997



AFTER 2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING, VEGETATION ON BANK ABOVE GREENLINE EXPANDING

**SOUTH CORRAL CREEK-STATE- SW SECTION 2, T25N, R119W**

BEFORE-1989



AFTER-2004



GREENLINE VEGETATION AND MEADOW VEGETATION EXPANDING, ASPEN GROOVES HAVE MORE REGROWTH, STREAM NARROWING AND DEEPENING

**MILL CREEK, BELOW IGO SPEEDWAY, NE SECTION 35, T26N, R119W**  
BEFORE-1989



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING,  
SLOPES SLUFFING, BARE SOIL DECREASING, SEDGE COMMUNITY EXPANDING

**MILL CREEK, FEDERAL, NE SECTION 35, T26N, R119W**

BEFORE-1993



AFTER-2004



STREAM NARROWING AND DEEPENING, SEDGE COMMUNITY EXPANDING, WILLOWS INCREASING, BARE GROUND DECREASING, BANKS SLUFFING, SINUOSITY INCREASING, FIRST LEVEL VEGETATION EXPANDING

**MILL CREEK, STATE, NW SECTION 36, T26N, R119W**

BEFORE-1989



AFTER-2004



STREAM NARROWING AND DEEPENING, SEDGE COMMUNITY EXPANDING, WILLOWS INCREASING, BARE GROUND DECREASING, BANKS SLUFFING, SINUOSITY INCREASING, FIRST TERRACE LEVEL VEGETATION EXPANDING

**MILL CREEK-STATE-BELOW CULVERTS, SW SECTION 31, T26N, R118W  
BEFORE-1989**



**AFTER-2004**



**STREAM NARROWING AND DEEPENING, SEDGE COMMUNITY EXPANDING,  
WILLOWS INCREASING, BARE GROUND DECREASING, BANKS SLUFFING,  
SINUOSITY INCREASING, FIRST TERRACE LEVEL VEGETATION EXPANDING**

MILL CREEK-STATE-SW SECTION 31, T26N, R118W

BEFORE-1989



AFTER-2004



STREAM NARROWING AND DEEPENING, SEDGE COMMUNITY EXPANDING, WILLOWS INCREASING, BARE GROUND DECREASING, BANKS SLUFFING, SINUOSITY INCREASING, FIRST LEVEL VEGETATION EXPANDING

**MILL CREEK-STATE-GREENLINE, SW SECTION 31, T26N, R118W**  
**BEFORE-1996**



**AFTER-2004**



**STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING  
BARE GROUND DECREASING, WILLOWS INCREASING, SEDGE COMMUNITY  
EXPANDING, FIRST TERRACE LEVEL VEGETATION EXPANDING**