

**U.S. Department of the Interior
Bureau of Land Management**

**Environmental Assessment WY-100-EA09-19
April 29, 2009**

**Environmental Assessment for Authorization #4904316 Ryegrass Area
Grazing Allotments Range Improvement Projects and Permit Renewal**

Location: Jewett Rye Grass (#02118), Brodie Draw (#02171), East Aspen Ridge (#22006), and West Aspen Ridge (#00747) grazing allotments

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INTRODUCTION

Purpose of and Need for Action

The purpose of this Proposed Action is to authorize livestock grazing in Jewett Rye Grass (#02118), Brodie Draw (#02171), and East Aspen Ridge (#22006) grazing allotments in conformance with the Pinedale Field Office Resource Management Plan (Pinedale RMP) November 2008 objectives for livestock grazing. Authorization is needed on these allotments because:

Where consistent with other multiple use goals and objectives there is Congressional intent to allow grazing on suitable lands. (*The Taylor Grazing Act of 1934, The Classification and Multiple Use Act of 1964, Federal Land Policy and Management Act of 1976, The Public Rangelands Improvement Act of 1978*)

The allotments contain lands identified as suitable for domestic livestock grazing in the Pinedale RMP, continued domestic livestock grazing is consistent with the management goals, objectives, and actions in the Pinedale RMP (pg 2-17 – 2-18, Pinedale RMP ROD).

It is Bureau of Land Management’s policy to make forage available to qualified livestock operators from lands suitable for grazing consistent with land management plans. (*43 CFR 4100*).

The Pinedale RMP, which directs the management of lands contained within this project area, has as one its goals to “maintain and/or enhance livestock grazing opportunities and rangeland health”.

While livestock management is meeting desired conditions, there is an opportunity to ensure maintenance and/or improvement of various ecosystem functions by implementing a comprehensive grazing plan that addresses rotational grazing opportunities and balances needs for growing-season rest for vegetation, wildlife habitat enhancement, and improved hydrologic function with an economically viable livestock operation.

The purpose of the proposed action is also to implement several range improvement projects required to implement the rest-rotation grazing system prescribed for Jewett Rye Grass (#02118), Brodie Draw (#02171), and East Aspen Ridge (#22006) in the McNeel Ryegrass Grazing Plan and required to improve livestock distribution in the West Aspen Ridge allotment (#00747).

Scoping and Public Involvement Process

Issues

BLM-Identified Issues:

- Forage competition between livestock and wild ungulates
- Removal of residual cover from livestock grazing to the degree that sage grouse nest and early brood rearing success is inhibited
- Economic impacts of the “no grazing” alternative

Externally Generated Issues:

There were no additional issues identified beyond those internally developed as a result of public scoping.

Decision Framework

The Field Manager is the responsible official who will decide whether or not to continue to authorize livestock grazing on the East Aspen Ridge Ind. (#22006), Brodie Draw Ind. (#02171), and Jewett Rye

Grass Ind. (#02118) allotments and implement the proposed range improvements and other actions and if so, under what terms and conditions in order to continue to meet the Pinedale RMP objectives in a timely manner.

PROPOSED ACTION AND ALTERNATIVES

Alternative 1 – The Proposed Action

The Bureau of Land Management Pinedale Field Office (PFO) proposes to authorize livestock grazing on the East Aspen Ridge Ind. (#22006), Brodie Draw Ind. (#02171), and Jewett Rye Grass Ind. (#02118) allotments (Figure 1) by implementing the McNeel-Ryegrass Grazing Plan. Those components of the plan subject to NEPA analysis are summarized below:

Livestock Numbers & Season of Use: Livestock turn-out date will be no earlier than June 1 and take-off date will be no later than September 15. Use in each grazing allotment is initially limited to the following:

- Jewett Rye Grass cannot exceed 440 Animal Unit Months (AUM's)
- Brodie Draw cannot exceed 385 AUM's
- East Aspen Ridge cannot exceed 846 AUM's

The permitted livestock number will not exceed 600 cow/calf pairs or equivalent.

Table 1 summarizes the maximum use allowed in each allotment when the livestock number reaches the objective of 600 cow/calf pairs or equivalent. Number of days in each allotment can be increased when livestock numbers are lower as long as total permitted AUM's are not exceeded. Livestock will be managed as one herd rotated through allotments and not split into multiple herd groups.

Table 1 – Maximum number of permitted days when livestock number reaches objective of 600 Cow/Calf pairs or equivalent

<i>Allotment</i>	<i>AUM's</i>	<i>Cow/Calf Pairs or Equivalent</i>	<i>Maximum Grazing Days</i>
East Aspen Ridge	846 (+ 93 Private)	600	47
Brodie Draw	385	600	19
Jewett Rye Grass	440	600	21
Totals	1764		87

Planned Grazing: Initially, growing-season use of grasses in the upland burned area in the Brodie Draw allotment is important in order to shift the competitive advantage from grasses to shrubs and promote shrub recruitment. Therefore, for at least the first two years of plan implementation (once the water infrastructure is in place, as discussed in the range improvements section) livestock will turn out first into Brodie Draw and then rotate through the other two allotments. After the first two years an annual grazing schedule will be developed between the permittee and BLM range specialist. The general guidelines of the plan need to incorporate the following components:

- A deferred rotation paradigm such that each allotment receives one growing season of rest at least every third year
- The “rest” allotment should be used as the third allotment during its' growing season rest year and as the first allotment the year after its' rest year

- Livestock spend 2-7 days in Jewett Rye Grass at the end of every grazing season in order to facilitate gathering and trailing home.

Flexibility

- Unless otherwise arranged, the grazing plan in Table 2 will be followed for the first five years after implementation and then years 3-5 will be repeated until this plan is updated
- Changes can be made on an annual basis via consultation between the permittee and BLM rangeland management specialist
- Changes should be documented using the Courtesy Grazing Application (form 4130-3a)
- Animal numbers can fluctuate annually but cannot exceed 600 cow/calf pairs or equivalent
- Turn-out and take-off dates can fluctuate annually but turn-out cannot occur earlier than June 1 and take-off cannot occur later than September 15 except in accordance with 43 CFR 4130.4.
- Livestock must be managed according to a deferred rotation grazing system such that livestock move as a group, rotating through each allotment within the system. Livestock cannot use more than one allotment at a time within the rotation for any protracted period of time.
- The number of days in each allotment can exceed those outlined in Table 1 as long as total permitted AUM's are not exceeded.

Range Improvements

- Brodie Draw well water system: The Brodie Draw Well is located in the West Aspen Ridge grazing allotment. The well has been drilled but not completed. This project would complete the well and attach two separate water pipelines (one running north and one running southeast into the Brodie Draw allotment), a large-capacity water storage tank in the Brodie Draw allotment, and two water tanks (intended to replace the function of Brodie Draw Reservoir #2 and Brodie Draw Reservoir #3) to be fed by the large-capacity storage tank. (Figure 2; T33N R112W Sec 7, T33N R113W Sec 1, 22, and 12, T34N R113W Sec 35)
- Boulder Lake Reservoir abandonment: This water pit occurs in an area of the East Aspen Ridge allotment characterized by sage brush and cool season bunch grasses. The section of the allotment tends to be very dry and does not produce high amounts of forage, compared to other portions of the allotment. The reservoir lies at the toe of a wet meadow area, rarely fills with water, and empties quickly. It is very shallow and muddy and the livestock operator loses several adult cows and calves every year (four cows and one calf in 2008). The operator and range specialist feel the best course of action is to retire this reservoir. (Figures 3 and 4; T33N R112W Sec 9)
- Redesign Ryegrass Reservoir #3: This water pit occurs at the head of a wet meadow riparian complex, is wide and shallow, and fed by a small spring and snow melt. The operator often loses one to two cattle in this reservoir every year. We would like to shift the reservoir location to create a smaller, deeper reservoir and retire the original dam. (Figure 5; T34N R112W Sec 33)

Alternative 2 – The No Action (or no change) Alternative

Livestock grazing would continue on the East Aspen Ridge Ind. (#22006), Brodie Draw Ind. (#02171), and Jewett Rye Grass Ind. (#02118) under the terms and conditions of the current permit. Table 2 summarizes the current permitted terms and conditions.

The proposed range improvements and abandonment would not be implemented.

Table 2

Allotment Name	Allotment #	Livestock #	Livestock Kind	Begin Date	End Date	% Public Land	Aums
BRODIE DRAW	02171	249	Cattle	15-May	30-Jun	100	385
EAST ASPEN RIDGE	22006	548	Cattle	8-May	30-Jun	87	846
JEWETT RYE GRASS	02118	307	Cattle	22-May	30-Jun	100	404
JEWETT RYE GRASS	02118	10	Horse	15-May	1-Sep	100	36

Alternative 3 - The No Grazing Alternative

Livestock grazing would no longer occur on the East Aspen Ridge Ind. (#22006), Brodie Draw Ind. (#02171), and Jewett Rye Grass Ind. (#02118).

The proposed range improvements and retirements would not be implemented.

AFFECTED ENVIRONMENT

Upland Range Condition

The project area is typical of semi-arid, high elevation sagebrush steppe ecosystems in southwestern Wyoming. The dominant vegetation species is Wyoming big sage brush with the expected associated bunchgrass-forb understory. Black sage brush/bare ground tends to dominate windswept ridge tops that have shallower soils.

Riparian Condition

There were no stream reaches identified or evaluated during the 1994-1999 PFO proper functioning condition (PFC) surveys. However, there are several areas within the project that may warrant PFC evaluation (namely Brodie Draw and possibly Ryegrass Draw) and certainly need some monitoring plan (as developed in the McNeel Ryegrass Grazing Plan) to evaluate whether improvement in wet-meadow conditions occur as a result of proposed management changes.

Livestock Grazing (Ranching Operations)

Cattle grazing has been a part of this landscape for at least 100 years. However, it was the passage of the Taylor Grazing Act in 1934 that implemented some form of managed grazing under an allotment-permittee system. The original forage allocation for the entire project area was about 2,000 animal unit months (AUM's). In the middle sixties this number was reduced by about 20% to its' current allocation of 1,670 AUM's. The traditional livestock use of these lands has been as a transition area between the home ranch where cattle are fed hay during the winter months and summer range on US Forest Service lands. As such, these allotments have been grazed annually in the spring (or during the growing season).

Wildlife

Sage grouse

The allotments contain suitable yearlong habitat for sage-grouse, including breeding sites (18 known leks within 2 miles of project area), nesting and brood rearing areas, and winter habitat. Lek count data indicates a relatively stable trend in population on leks associated with these allotments.

Big game species

The allotments lie within crucial winter range and migration routes for mule deer and some areas provide crucial winter range for moose. Pronghorn migrate through the area in the spring and fall with some summer use. Mule deer using the allotments are generally from the Sublette Mule Deer Herd., while pronghorn and moose are part of the Sublette Pronghorn Herd and the Sublette Moose Herd, respectively. Current data from the Wyoming Game and Fish Department indicates the Sublette Mule Deer herd is below objective, although the herd is relatively stable. Pronghorn in the herd are above objective but recent efforts have been made to bring the population down to more sustainable levels. Moose have been declining in the Sublette Herd but the trend has recently stabilized.

Other wildlife species

Suitable habitat exists for a variety of small mammals, migratory songbirds, raptors, and other nongame species. There is very little trend data associated with many of these species.

Threatened, Endangered, and Sensitive Species

These allotments do not contain habitat suitable for ute ladies'-tresses. These allotments do not contain habitat suitable for Canada lynx. There are no areas that contain suitable habitat for blow-out penstemon. To date there are no known white-tailed prairie dog towns within any of these allotments. This area is block-cleared for the presence of black-footed ferrets by the United States Fish and Wildlife Service and the Wyoming Game and Fish Department (WGFD). This area may contain suitable habitat for yellow-billed cuckoo, however the potential habitat is under private jurisdiction. Gray wolves probably use this area in the winter when elk are being fed on nearby feed grounds operated by WGFD. This area is not connected to the drainage containing Kendall warm springs dace.

Cultural

This portion of the Ryegrass landscape has had few acres of formal inventory (Class III), but is moderately well known to BLM-PFO District archaeologists. Sites are located along the upper bluffs and hilltops in sandy deposits and in select adjacent upland settings. Many of the hilltops and bluffs in this area are dominated by cobble-armored surfaces, and stone circles and other rock alignments are known. One site (48SU176) with stone circles and associated lithic debris is recorded within the Ryegrass landscape in an upland setting and 48SU285 lies within the project area. Ryegrass is an area known to contain abundant prehistoric campsites; this public knowledge has resulted in significant amounts of artifact collecting in this area.

ENVIRONMENTAL EFFECTS

Methodology

Rangeland Condition and Ranching Operations (Livestock Grazing)

The three major components of analysis for this report are upland range condition, riparian condition, and livestock grazing/ranch operations. The Wyoming Standards for Rangeland Health provide guidance and rationale for determining sustainability of livestock grazing as related to upland and riparian condition and provide indicators with which to measure such impacts. As such, the range of alternatives were evaluated based on their expected impacts to said indicators.

NEPA also requires that we evaluate the socioeconomic impacts of the range of alternatives. This specialist report only evaluated the economic impacts directly related to ranching operations of the affected permittees.

Wildlife and Threatened, Endangered, and Sensitive Species

Impact analyses and conclusions are based on knowledge of resources in the planning area, a review of existing literature, and the professional judgment of experts within and outside the BLM. Spatial analysis was conducted using ESRI's ArcGIS Desktop 9.1 computer software. In the absence of quantitative data, best professional judgment was used. Impacts are sometimes described using ranges of potential impacts or in qualitative terms if appropriate.

Cultural

An existing data review of BLM records, coupled with the field office archaeologist's knowledge of the permit area was conducted by the BLM-PFO Cultural Resource Specialist.

Assumptions

- Grazed bunchgrasses are more nutritious and able to maintain vigor when grazed at moderate levels and when provided either ample opportunity to grow prior to use or have ample opportunity to grow after grazing (Holechek 1981; McNaughton 1983).
- Livestock grazing has the potential to increase productivity of preferred vegetation species (Severson, 1990; Urness 1990)
- Livestock grazing has the potential to increase plant species diversity (Severson, 1990; Urness 1990)
- The BLM assumes that an adequate survey effort was conducted to ensure that black-footed ferrets were not present in the area before making the block-clearance determination.
- The only threatened, endangered, or sensitive species known to use the area is the gray wolf., therefore, the effects analysis will only discuss this species.

Effects Common to Both Grazing Alternatives (Alternative 1 and Alternative 2)

Threatened, Endangered, and Sensitive Species

Direct and Indirect Effects

There are no known depredations to livestock due to gray wolf activity within these allotments. These permit renewals "will not jeopardize the continued existence" of the gray wolf due to the insignificant impacts they may be subject to by continued grazing in this area. The only difference between the Proposed Alternative and the No Change Alternative with respect to the gray wolf is a change in season of use. If this change results in fewer cattle grazing United

States Forest Service (USFS) lands in the Wyoming Range then the potential for interactions between wolves and domestic livestock will decrease, thus decreasing the potential for wolf depredation on livestock.

Cumulative Effects

There are no anticipated cumulative effects beyond the disclosed direct and indirect effects because there are no other past, present, and reasonably foreseeable future actions within the project area.

Significance Determination

Alternatives 1 and 2 will not have a significant impact to any threatened, endangered, or sensitive species considered in this analysis.

Cultural

Direct and Indirect Effects

As per the Pinedale RMP FEIS 2008; “Implementing healthy rangeland standards and achieving proper functioning condition (PFC) and rangeland health objectives would contribute to improved range conditions and soil and vegetation stability, thereby protecting cultural resources” (Pg. 4-12 FEIS for the Pinedale Field Office 2008). As such livestock grazing, including any change in season of use is not expected to have any adverse impacts to cultural resources beyond those disclosed in the Pinedale RMP.

The proposed action includes ground disturbing activities including subsurface water pipeline construction, reservoir construction and the installation of water storage tanks. The destructive nature of these types of activities put cultural resources at risk and will need to be analyzed on a case-by-case basis prior to the issuance of a NRHP Compliance form. Prior to any ground disturbing activities, including but not limited to the current proposed action, a Class III cultural resource inventory will be required. Avoidance of cultural resources for project development is preferred in all cases. Subsurface discoveries that are the result of construction activities could potentially be mitigated through data recovery excavations.

Cumulative Effects

Assuming all required cultural surveys are conducted prior to ground disturbing activities, there are no anticipated cumulative effects on cultural resources.

Significance Determination

Alternatives 1 and 2 will not have a significant impact on cultural resources within the project area.

This determination comports with the BLM-PFO statutory obligations under the National Historic Preservation Act, FPLMA, the 2008 Pinedale Field Office RMP ROD and the BLM/WYSHPO State Protocol.

Alternative 1 - Proposed Action (implement the McNeel Ryegrass Grazing Plan)

Upland and Riparian Range Condition

Direct and Indirect Effects

If plants are provided either ample opportunity to grow prior to use or have ample opportunity to grow after grazing then this alternative should have no long-term adverse impacts to maintaining a resilient plant community. Monitoring techniques that specifically target frequency of plant defoliation, intensity of defoliation, and a plant's opportunity to grow or regrow should be employed to insure that widespread overuse is not occurring (see monitoring recommendations). Such overuse would likely lead to a deterioration of range condition.

Because the grazing plan is specifically designed to provide 1.5 growing seasons of rest for every three growing seasons it is expected that plants will have ample opportunities for growth prior to grazing in some years and/or regrowth in some years. This planned grazing should result in improved range condition as compared to the historic use of annual spring (growing season) grazing because there is so much more growing season rest built into the system.

Because of the lack of available water in Brodie Draw later than June the range improvements designed for the Brodie Draw allotment are critical before July, August, and September grazing can be implemented. Once these improvements are developed then cattle distribution in Brodie Draw should be improved, resulting in relief from grazing pressure in and around the only currently available water (along the riparian area of Brodie Draw itself). This change should also result in improved range condition in that portion of the allotment.

Factors that can be measured to identify potential adverse impacts include GRI scores, changes in vegetative cover, and changes in plant community composition.

The same concepts that apply to maintaining resilient plant communities also apply to soil stability. Overuse from grazing can lead to loss of soil stability because the ability of vegetation to recover from disturbance is diminished. If the proposed seasons of use are appropriate for the landscape then soil stability should be maintained.

Factors that can be measured to identify potential adverse impacts to soil stability include GRI scores and changes in relative amount of bare ground.

If provided appropriate rest and growth/regrowth opportunities riparian and wet meadow vegetation is capable of recovering from disturbance. The riparian and wet meadow area in Brodie Draw would benefit from shifting livestock grazing pressure away from that component of the allotment. Likewise, the wet meadow complex above the Boulder Lake reservoir would also benefit from reduced grazing pressure. These areas should also benefit from the combination of periodic rest interspersed with moderate grazing pressure.

Cumulative Effects

There are no anticipated cumulative effects beyond the disclosed direct and indirect effects because there are no other past, present, and reasonably foreseeable future actions within the project area.

Significance Determination

The Proposed Action should have no significant impacts to the rangeland or riparian resource.

Livestock Grazing

Direct and Indirect Effects

The proposed action should have no impact on currently allocated AUM's as there are no changes proposed. If planned grazing results in improved bunchgrass vigor, as is expected, then livestock performance may improve.

The Proposed Action may benefit ranching operations as cattle will only have two trailing trips per summer instead of the four currently required to move cattle from BLM to USFS lands and then back to BLM lands before trailing home. This should result in improved livestock performance and decreased labor costs.

Cumulative Effects

There are no anticipated cumulative effects beyond the disclosed direct and indirect effects because there are no other past, present, and reasonably foreseeable future actions within the project area.

Significance Determination

The Proposed Action should have no significant impacts on ranching operations of affected permittees.

Wildlife

Direct and Indirect Effects

Sage grouse: Implementation of the proposed action could have long term benefits to sage grouse by re-distributing livestock to promote an increase in seedling sagebrush (i.e., Brodie draw) and by incorporating water development projects that could enhance brood rearing sites. The rotational grazing plan will provide periodic rest to each allotment during the critical vegetative growing period. This could likely allow for a more diverse and prolific forb component in the allotments than is currently being achieved. Possible impacts to nesting sage grouse could be a reduction in residual grass cover in some localized areas due to the re-distribution of cattle through water developments along with a longer grazing period than is currently being practiced. However, it is not anticipated that these impacts will be detrimental to the overall population of grouse using these allotments. Strict adherence to the indicators outlined in the objectives of the grazing plan would ensure maintenance of sage grouse habitat for the life of this permit.

The planned water trough intended to replace Brodie Draw Reservoir #2 (Figure 2) is very close to one sage grouse lek. Cattle use is usually concentrated around water sources and because grouse tend to nest adjacent to lek sites this location could have detrimental impacts to sage grouse nesting habitat.

It is believed that spring livestock grazing (before early June) may have a negative impact on sage grouse nest and brood rearing success. Under current livestock management livestock turn-out is permitted on May 8th. Delaying turn-out until June 1, as proposed, could benefit sage grouse nest success.

Big Game Species: Potential impacts from livestock grazing in crucial winter range and transitional habitat can include competition for forage and water, and habitat displacement. However, the proposed grazing rotation could potentially benefit big game species because

grazed areas have been shown to be preferred over ungrazed areas by wild ungulates, presumably due to increased forage palatability (Frisina and Morin 1991; Frisina 1992; Pettee 2007).

If the redistribution of cattle in the Brodie Draw allotment can increase grass vigor and decrease grass competition with forb and shrub species then winter range and spring transition range conditions will improve for big game species.

Other wildlife species: It is typically assumed that management practices that provide for healthy rangelands should directly or indirectly benefit most wildlife species. The proposed action is designed to provide for healthy rangelands in the associated allotments and should therefore maintain or improve habitat conditions for wildlife who make a living in these habitats.

Proposed Mitigation Measures

Do not replace the Brodie Draw Reservoir #2 with a water trough (Figure 2) due to sage grouse concerns.

Residual Effects

If mitigation measures are implemented there should be no residual effects to sage grouse of the proposed action.

Cumulative Effects

There are no anticipated cumulative effects beyond the disclosed direct and indirect effects because there are no other past, present, and reasonably foreseeable future actions within the project area.

Significance Determination

The Proposed Action should have no significant impacts to the wildlife resource.

Alternative 2 - No Action (no change) Alternative

Upland and Riparian Range Condition

Direct and Indirect Effects

With respect to effects on upland range condition, the major difference between the Proposed Action and No Change alternative is the lack of growing season rest. If stocking rates are light then continuous spring grazing is probably not detrimental to long term upland range condition. However, if stocking densities are moderate to heavy then continuous spring grazing could eventually result in deteriorating condition of bunch grasses and eventually lead to a decrease of the bunch grass component within the sagebrush ecosystem.

The two wet meadow areas that would benefit from modifications in range improvements would not receive those benefits under the No Change alternative.

Cumulative Effects

There are no anticipated cumulative effects beyond the disclosed direct and indirect effects because there are no other past, present, and reasonably foreseeable future actions within the project area.

Significance Determination

The no action alternative should have no significant impacts to the rangeland or riparian resource.

Livestock Grazing

Direct and Indirect Effects

Effects of the “No Change” alternative are similar to those of the proposed action but the possible benefits to livestock performance of the proposed action would not be realized.

Cumulative Effects

There are no anticipated cumulative effects beyond the disclosed direct and indirect effects because there are no other past, present, and reasonably foreseeable future actions within the project area.

Significance Determination

The no action alternative should have no significant impacts on ranching operations of affected permittees.

Wildlife

Direct and Indirect Effects

Sage grouse: Under current conditions, sage grouse successfully breed, nest, rear broods, and winter in these allotments. Grazing according to the current terms and conditions would result in maintaining the status quo for sage grouse populations in the project area.

Big Game Species: Grazing according to the current terms and conditions would result in maintaining the status quo for big game populations in the project area.

Other wildlife species: Grazing according to the current terms and conditions would result in maintaining the status quo for other wildlife species in the project area.

Cumulative Effects

There are no anticipated cumulative effects beyond the disclosed direct and indirect effects because there are no other past, present, and reasonably foreseeable future actions within the project area.

Significance Determination

Alternative 2 should have no significant impacts to the wildlife resource.

Alternative 3 - No Grazing Alternative

Upland and Riparian Range Condition

Direct and Indirect Effects

Were all livestock grazing to be removed there would likely be a short term benefit to both riparian and upland vegetation condition. Riparian areas would have more opportunity to recover from potential adverse impacts of livestock and production of upland grass species would increase in the absence of grazing pressure. However, as discussed above, these vegetation species have evolved under grazing pressure and require light to moderate use in order to maintain vigor and remove decedent plant parts that can, over time, inhibit nutrient cycling through the ecological system. The long term impacts of livestock removal would be

detrimental to overall ecological function and eventually lead to deteriorating wildlife habitat conditions. Furthermore, the removal of livestock could eventually lead to declining conditions that would result in those areas that currently meet Rangeland Health Standards not meeting those same standards in the future.

Cumulative Effects

There are no anticipated cumulative effects beyond the disclosed direct and indirect effects because there are no other past, present, and reasonably foreseeable future actions within the project area.

Significance Determination

This alternative may have a significant impact on the upland resource if a lack of grazing leads to long term detrimental effects to upland vegetation.

Livestock Grazing

Direct and Indirect Effects

This alternative would have severe impacts to associated ranching operations that are dependent on public land forage for a large portion of their annual production cycle. It is likely that, were the permittee to lose their grazing privilege they would go out of business. If that were to occur then the private land associated with those ranches would probably be subdivided and sold and would cease to provide any wildlife habitat values.

Cumulative Effects

There are no anticipated cumulative effects beyond the disclosed direct and indirect effects because there are no other past, present, and reasonably foreseeable future actions within the geographical scope of analysis.

Significance Determination

This alternative would have a significant impact on the affected permittee as it would likely result in the operator going out of the ranching business. It would not have a significant impact on the Sublette county or Wyoming ranching industry unless it set a precedent for other permit renewal decisions. This alternative is not consistent with Pindale RMP direction.

Wildlife

Direct and Indirect Effects

Under Alternative 3 wildlife might see an immediate benefit if competition from livestock for key resources was eliminated. However, there are also long term benefits from grazing, such as increased palatability of grazed vegetation, which wildlife would not realize.

Cumulative Effects

There are no anticipated cumulative effects on discussed wildlife species.

Significance Determination

Alternative 3 should have no significant impacts on discussed wildlife species.

Threatened, Endangered, and Sensitive Species

Direct and Indirect Effects

Were all livestock grazing to be removed there would be no depredation conflicts with gray wolves. The benefits of rotational grazing may result in long term detriment to overall ecological function and eventually lead to deteriorating wildlife habitat conditions.

Cumulative Effects

There are no anticipated cumulative effects on threatened, endangered, or sensitive species.

Significance Determination

Alternative 3 will not have a significant impact to the federally listed species mentioned in the effects determination.

Cultural

Direct and Indirect Effects

The direct effect of a no grazing alternative would be a reduction to potential impacts to cultural resources from the effects of livestock trampling, particularly in areas of high site probability combined with sediments that are susceptible to livestock trampling such as riparian or wetland areas. An indirect effect would be that cultural resource sites exposed by erosion due to livestock would no longer be discovered.

Cumulative Effects

Alternative 3 will not have a significant impact on cultural resources within the project area.

This determination comports with the BLM-PFO statutory obligations under the National Historic Preservation Act, FPLMA, the 2008 Pinedale Field Office RMP ROD and the BLM/WYSHPO State Protocol.

Significance Determination

As per the Pinedale FO 2008 FEIS, “Alternately, cattle trails and other heavily trampled and exposed areas could unearth otherwise undetected cultural resources and allow them to be identified and recorded.” (Pg. 4-12). This sole purported benefit to cultural resources by livestock would end if the no grazing alternative were to occur.

Issues Summary

Alternatives	Issues (referenced from Pg 2)			
	Livestock/Ungulate Forage Competition (if occurring)	Sage Grouse Nesting Habitat	Socioeconomic	Consistent With Pinedale RMP or 43CFR4100
Proposed Action	Neutral	Positive (due to late livestock turn-out)	Positive	Yes
No Change	Neutral	Neutral	Neutral	Yes
No Grazing	Positive	Neutral	<i>Negative</i>	<i>No</i>

Monitoring

If grazing continues in the project area the monitoring plan described in the McNeel Ryegrass Grazing Plan will be implemented. If grazing were to cease in the project area a modified monitoring plan that focused less on impacts of grazing and more on general vegetation trends would be implemented.

RMP DIRECTION AND CONSISTENCY

The allotments contain lands identified as suitable for domestic livestock grazing in the Pinedale RMP and continued domestic livestock grazing is consistent with the management goals, objectives, and actions in the Pinedale RMP (pg 2-17 – 2-18, Pinedale RMP ROD).

The Pinedale RMP, which directs the management of lands contained within this project area, has as one of its goals to “maintain and/or enhance livestock grazing opportunities and rangeland health”.

Alternative 3, the “No Grazing” alternative, is not consistent with the Pinedale RMP.

“Management actions associated with livestock grazing would have both direct and indirect impacts on cultural resources. Implementing healthy rangeland standards and achieving proper functioning condition (PFC) and rangeland health objectives would contribute to improved range conditions and soil and vegetation stability, thereby protecting cultural resources” (Pg. 4-12 FEIS for the Pinedale Field Office August 2008)

TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

- Affected grazing permittees
- Wyoming Department of Agriculture
- Wyoming Game and Fish Department
- Western Watersheds Project

LIST OF PREPARERS

Name	Position	Resource(s) Represented
Jessica C Pettee	Rangeland Management Specialist	Upland and Riparian Rangeland Health, ID Team Lead, Grazing Administration
Rusty Kaiser	Wildlife	Wildlife Biologist
Lisa Solberg	Threatened, Endangered, and Sensitive Species	Wildlife Biologist
Rob Schweitzer	Cultural	Archeologist

REFERENCES

ES-61411/W.02/WY06F0205b, ES-6-WY-F003, Formerly ES-61411/W.02/WY9881- Biological Opinion for the Wyoming Bureau of Land Management Resource Management Plans and their Effects to the Ute Ladies’-tresses orchid, April 5, 2007.

ES-61411/W.02/WY9721d- Biological Opinion for the Wyoming Bureau of Land Management Resource Management Plans and their Effects to the Black-footed Ferret, January 10, 2006.

BLM- Statewide Programmatic Biological Assessment: Blowout Penstemon (*Penstemon haydenii*)- August 2005.

- ES-61411/W.02/WY9669c-Biological Opinion for the Wyoming Bureau of Land Management Resource Management Plans and their Effects to the Canada Lynx, August 9, 2005.
- ES-61411/W.02/WY8797- Biological Opinion for the Wyoming Bureau of Land Management Resource Management Plans and their Effects to the Gray Wolf, March 21, 2005.
- Frisina, M.R., and F.G. Morin. 1991. Grazing private and public lands to improve the Fleece elk winter range. *Rangelands* 13(6): 291-293.
- Frisina, M.R. 1992. Elk habitat use within a rest-rotation grazing system. *Rangelands* 14(2): 93-96.
- Holechek, J. L. 1981. Livestock grazing impacts on public lands: A viewpoint. *J. Range Manage.* 34:251-254.
- McNaughton, S. L. 1983. Compensatory plant growth as a response to herbivory. *Oikos* 40:329-336.
- Pettee, J.C. 2007. Livestock-wildlife interactions on aspen rangelands of the intermountain west. Dissertation. PhD. Utah State University.
- Severson, K. E. 1990. Summary: Livestock grazing as a wildlife management tool. p. 3-6 *In:* K. E. Severson. *Can Livestock Be Used As a Tool to Enhance Wildlife Habitat.* Gen. Tech Rep. RM-194. U.S. Forest Service, Rocky Mountain Experiment Station, Fort Collins, CO.
- Urness, P. J. 1990. Livestock as manipulators of mule deer winter habitats in northern Utah. p. 25-35. *In:* K. E. Severson, tech. coord. *Can Livestock Be Used as a Tool To Enhance Wildlife Habitat.* Gen. Tech. Rep. RM-194. U.S. Forest Service, Rocky Mountain Experiment Station, Fort Collins, CO.

Wyoming Standards for Rangeland Health,

http://www.blm.gov/wy/st/en/programs/grazing/standards_and_guidelines/standards.html

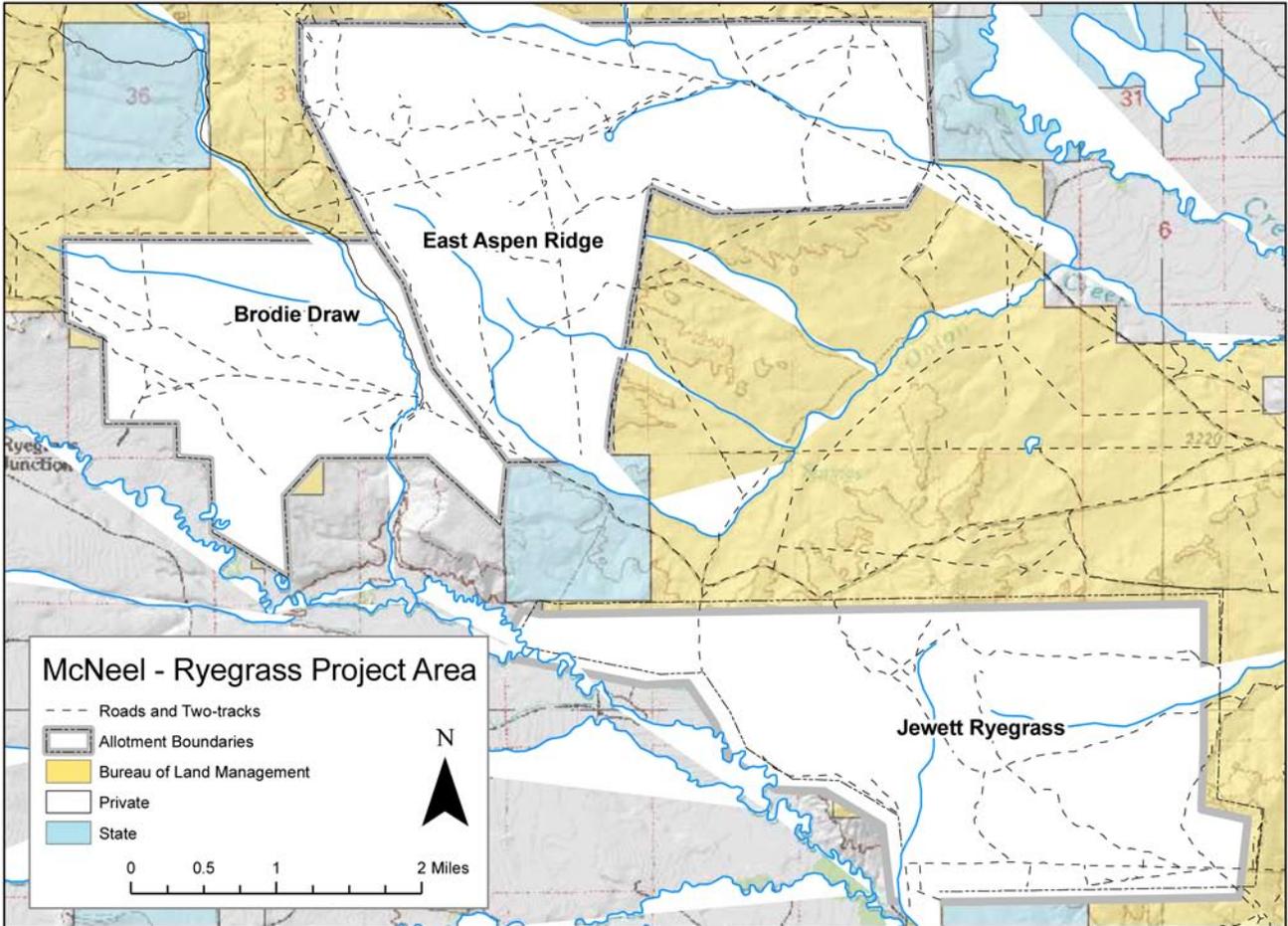


Figure 1

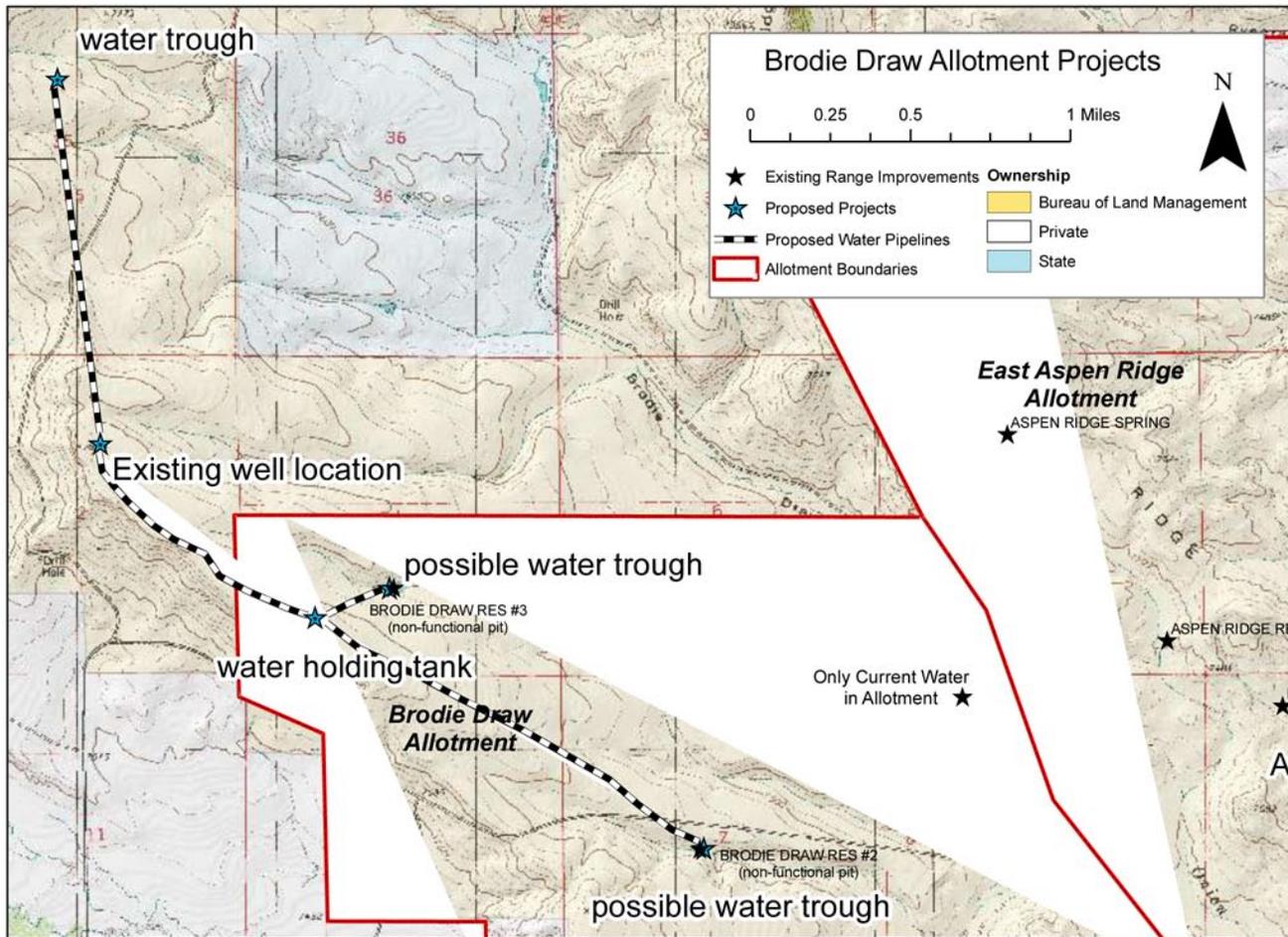


Figure 2

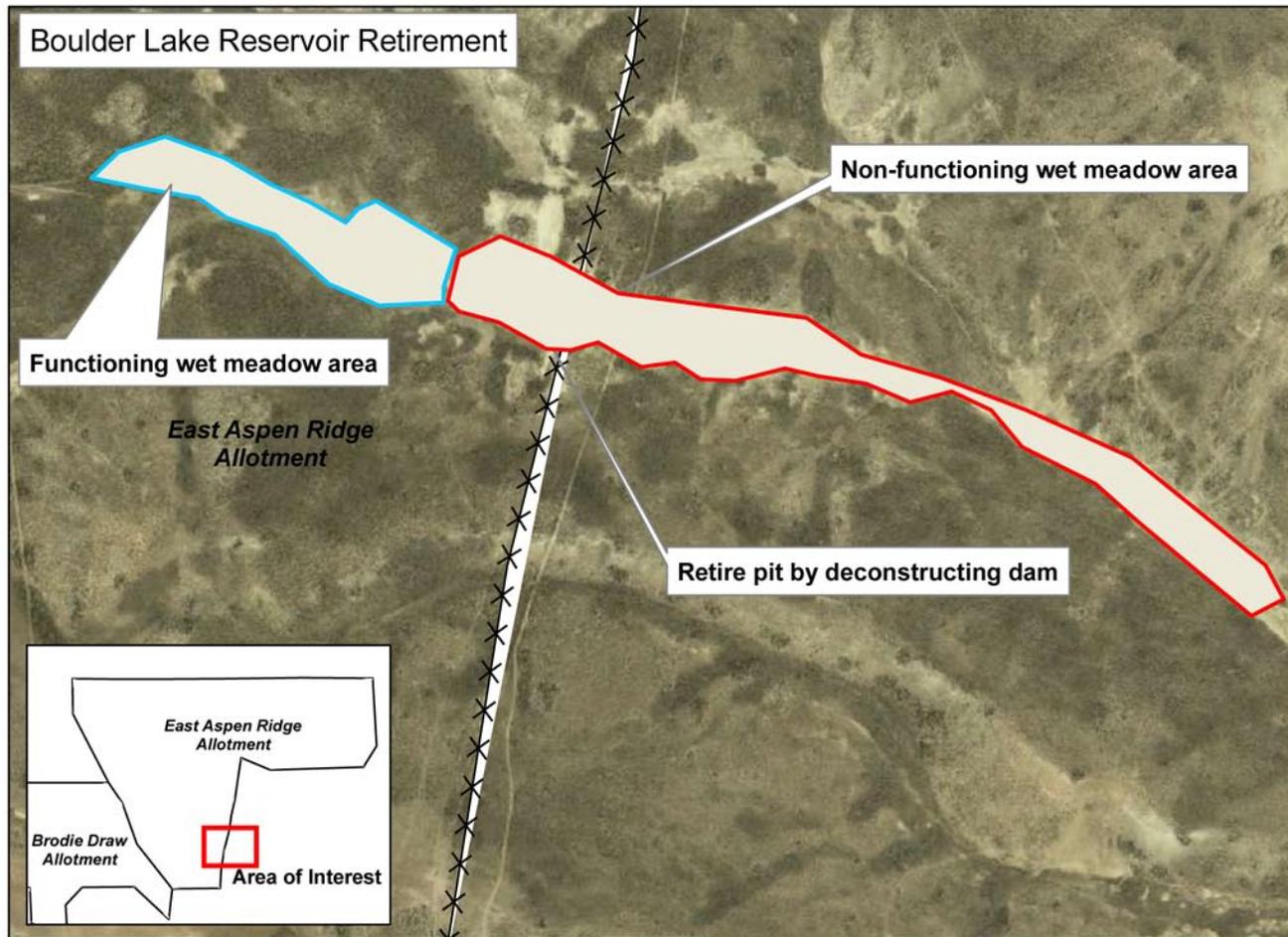


Figure 3

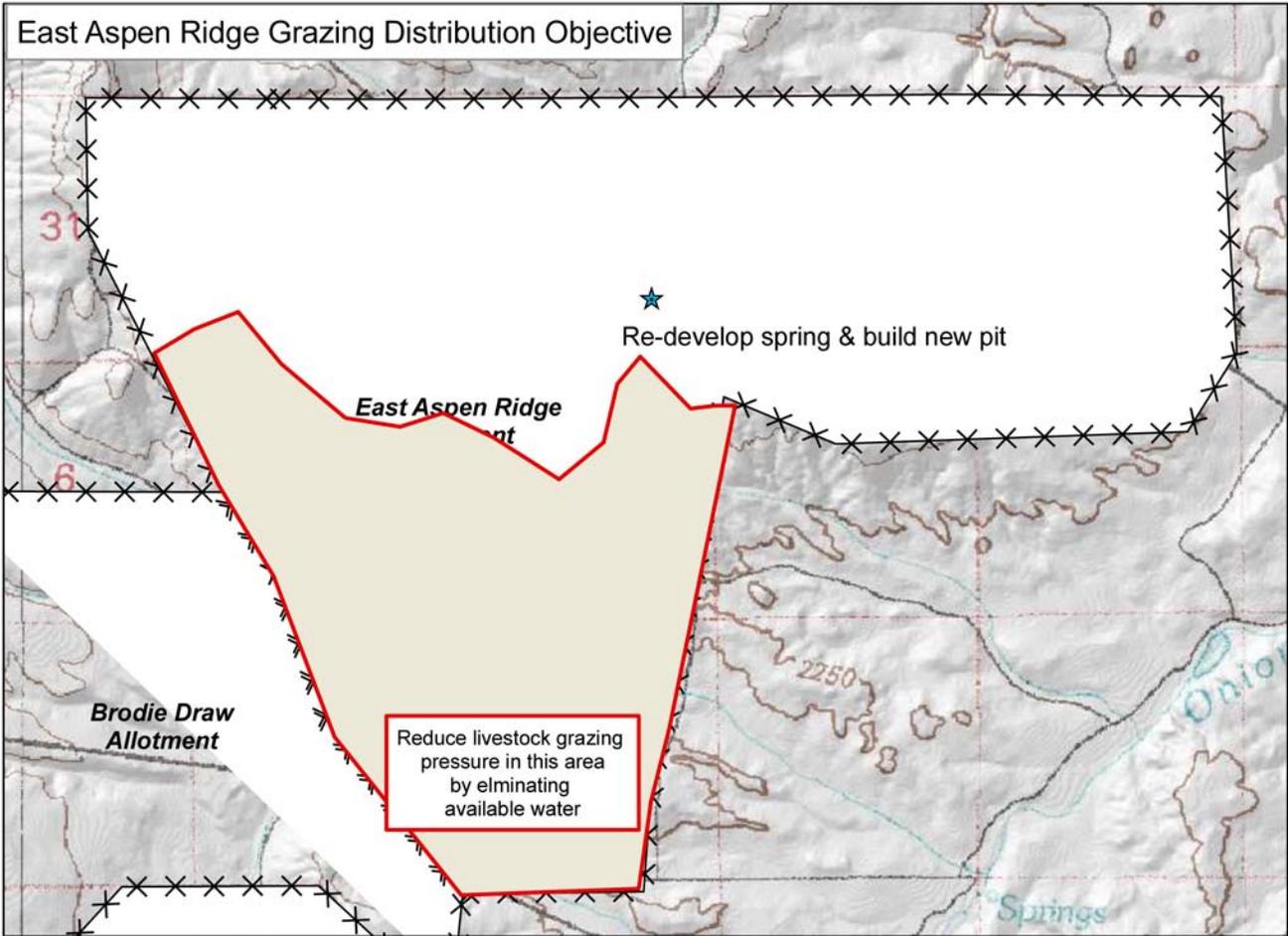


Figure 4

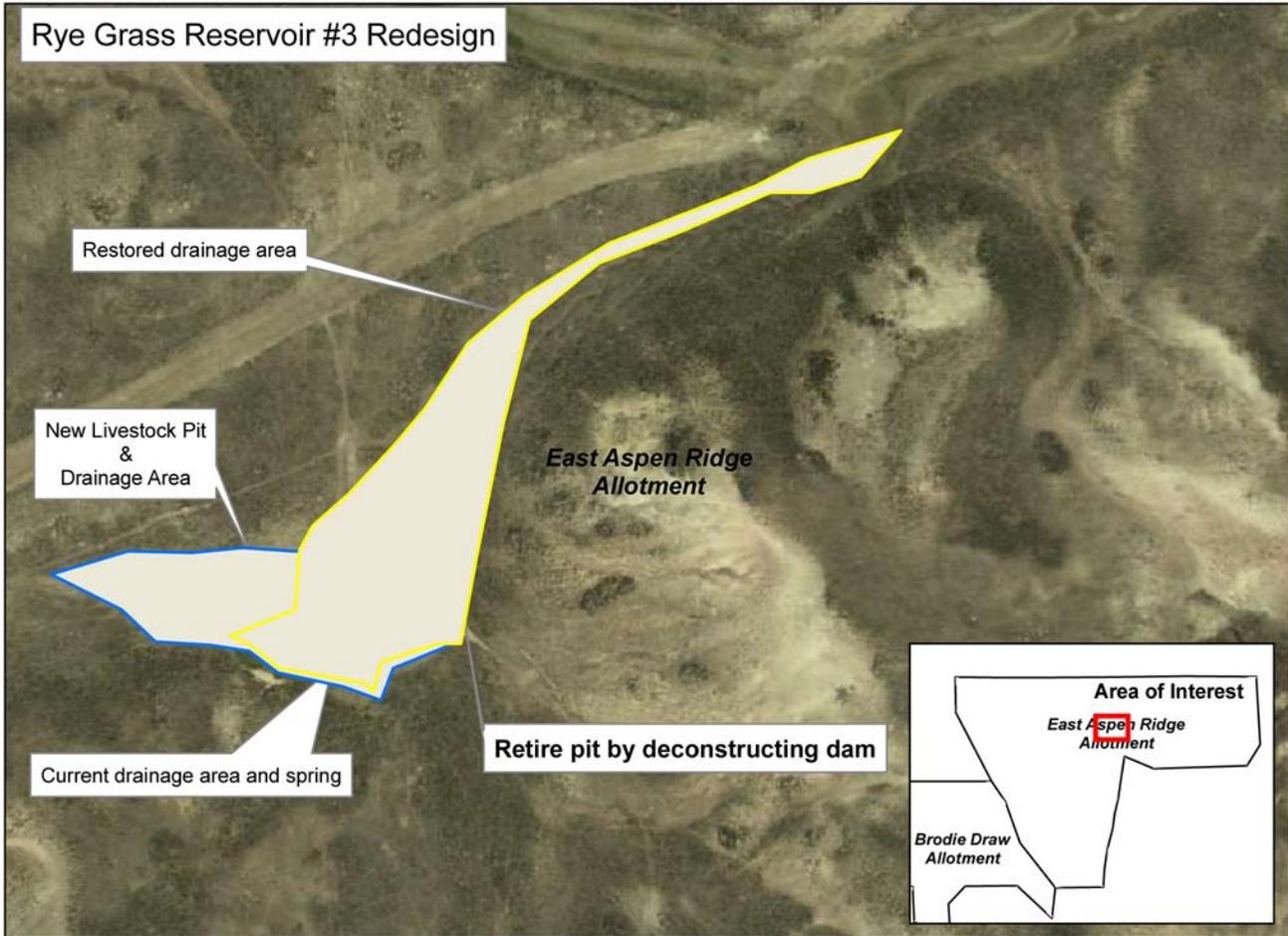


Figure 5