CHAPTER 2. ALTERNATIVES, INCLUDING THE PROPOSED ACTION

Introduction

This chapter describes and compares the alternatives considered for the long-term authorization for Wyoming Game and Fish Commission to use NFS lands for their winter elk management activities. It includes a description and map of each alternative considered. This section also presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a clear basis for comparison among options.

Alternatives Considered in Detail

The Forest Service developed the Proposed Action and two alternatives in response to issues raised by the interdisciplinary team and the public.

The seven feedgrounds considered in this document are located in the Jackson and Pinedale Ranger Districts, Bridger-Teton National Forest in Teton and Sublette Counties, Wyoming. Legal descriptions for the feedgrounds are as follows:

- **Alkali Creek:** Section 23, T42N, R113W, 6th PM.
- **Dog Creek:** SE of SE 1/4 of Section 31, and SW of SW 1/4 of Section 32, T39N, R116W 6th PM; NW of NW 1/4 of Section 5 and NE 1/4 of Section 6, T38N, R116W 6th PM.
- **Fall Creek:** located in NW 1/4 of Section 6, T33N, R107W and SW of SW 1/4 of Section 31, T34N, R107W, 6th PM.
- **Fish Creek**: SW of SE of Section 1, S ½ of SW ¼ of Section 1, and E 1/2 of Section 12, T41N, R112W, 6th PM; W 1/2 of NW 1/4 of Section 7, T41N, R111W, 6th PM.
- **Muddy Creek:** NW 1/4 of Section 27, T31N, R105W, 6th PM.
- **Patrol Cabin:** W ½ of Section 28, SE ¼ of Section 29, and NW ¼ of Section 33, T42N, R112W, 6th PM
- **Upper Green River:** E ½ of NE ¼ of Section 9, and W ½ of Section 10, T39N, R109W, 6th PM.

Alternative 1

No Action - No Special Use Authorization

Under the No Special Use Authorization Alternative, use of NFS lands for WGFC winter elk management activities would not be permitted at the seven locations studied in this proposal. WGFC would re-habilitate impacts on NFS lands at the six existing feedgrounds.

The WGFC has informed the Forest Service that under this alternative, they would continue to implement their winter elk management activities with facilities and feedgrounds at other locations on federal, state, and private lands. This includes continued operation of two

feedgrounds on NFS lands at Dell Creek and Forest Park that are not included in this analysis. It also includes continued operation of thirteen State operated feedgrounds that are not on NFS lands and the feedground at the National Elk Refuge.

The future scenario projected to be most likely for the six existing feedgrounds, and therefore used for this analysis is:

- Alkali Creek and Fish Creek: Operations would move several miles to Patrol Cabin feedground on State lands within the BTNF.
- Dog Creek: Operations would continue on the private land portion of this feedground.
- Fall Creek: Operations would continue on the BLM and private land portion of this feedground.
- Muddy Creek: Operations would move away from the BTNF to an unidentified location on private, state, or other federal lands.
- Upper Green River: Operations would move away from the BTNF to an unidentified location on private, state, or other federal lands.

Alternative 2

No Change from Current Permitted Area

Under the No Change Alternative, Special Use Authorizations would be reissued for continuation of use of NFS lands for WGFC winter elk management activities at the six locations where use occurred in the recent past. The specific areas addressed in this action include: Alkali Creek, Dog Creek, Fall Creek, Fish Creek, Muddy Creek, and Upper Green River. A permit would not be issued for use of the land adjacent to the Patrol Cabin area.

Winter elk management activities include, but are not limited to feeding, capturing, vaccinating and testing elk, and removing seral positive elk from the BTNF. Feeders are contract employees hired by WGFC. During the feeding season, feeders live on State lands at Patrol Cabin and on NFS lands at the Upper Green River feedground. Feeders at Dog Creek and Muddy Creek typically drive into the feedgrounds daily to feed elk. Feeders travel to the feedgrounds by truck when roads are passable and by snowmobile when roads are snowbound.

Elk feeders typically follow a daily routine of harnessing a team of horses and attaching them to the sleigh. They then load the sleigh with hay; except at Muddy Creek where the feeder utilizes a tractor to load hay and pull the sleigh. The feeder drives the team out onto the feedground area and distributes the hay to the elk. This process is repeated until enough hay has been spread to feed the number of elk on the feedground. The 32 year average of daily hay consumption is 8.05 lbs/elk.

Various disease management efforts are implemented during the winter. Calves are vaccinated with *Brucella* strain 19 and typically 100% of the calves on the feedground are inoculated. Occasionally, elk are trapped on NFS lands at Alkali Creek, Fish Creek, Muddy Creek, and Upper Green River Feedgrounds. Elk are trapped and adult females are tested until a sufficient sample size for 85% confidence level for brucellosis exposure rate is reached. Since 2006 Muddy Creek Feedground has been used to initiate a pilot test and removal program recommended by the Wyoming Brucellosis Coordination Team. Test and removal was initiated

at Fall Creek Feedground in winter 2007/2008, but this activity does not occur on NFS land. The program involves trapping large numbers of elk and removing sero-positive elk from the population. Approximately 150 yards of Forest Service Road #869 would continue to be plowed to allow trucks and trailers into this feedground during the winter months.

During summer, WGFD personnel typically conduct maintenance on various structures (i.e., stackyards, and elk traps) on several feedgrounds. During fall, stackyards are stocked with certified weed-free hay transported on semi-trucks from various producers throughout Lincoln and Sublette Counties in Wyoming and from producers in nearby Idaho locations.

Details concerning the past and current operation at each feedground are found in Appendix 2, Elk Feedgrounds in Wyoming. Acres, structures, and maps describing Alternative 2 for each feedground are displayed in Table 3 and Figures 4 through 10. Figure 2 displays a vicinity map of this alternative.

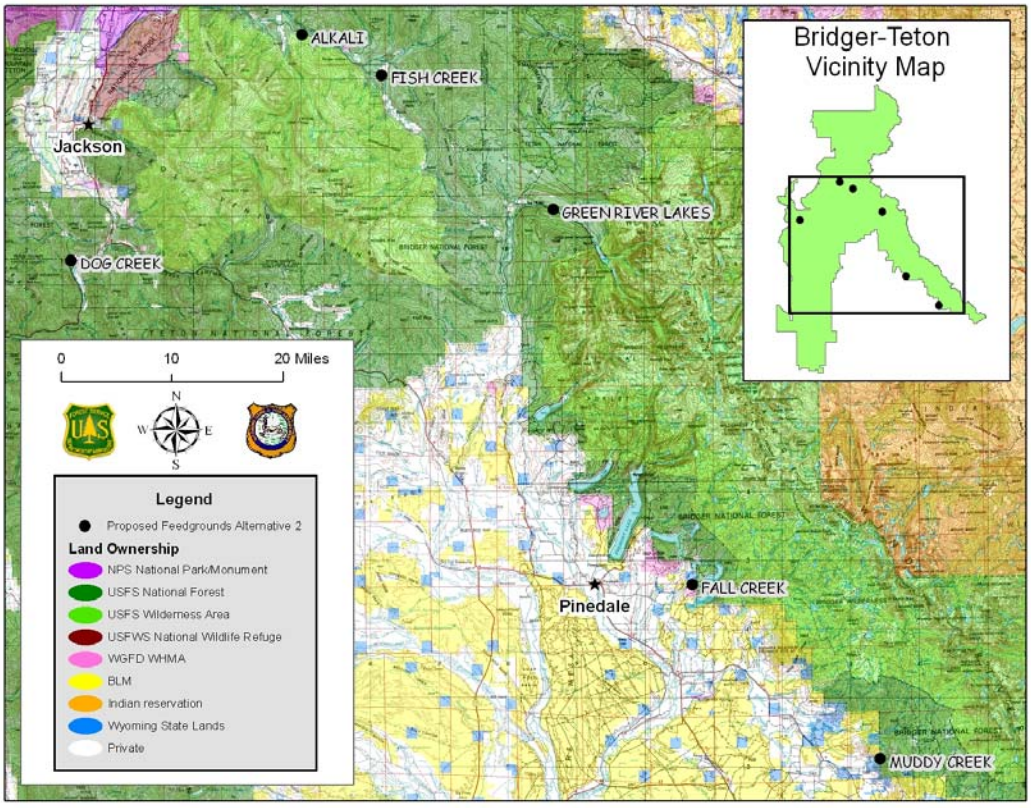

Figure 2. Proposed Feedground locations in Alternative 2

Alternative 3

The Proposed Action – The Agency's Preferred Alternative

Under the Proposed Action Alternative, Special Use Authorizations would be issued for use of NFS lands for WGFC winter elk management activities at the six existing locations and one new location. The specific areas included in this action include: Alkali Creek, Dog Creek, Fall Creek,

Fish Creek, Muddy Creek, Patrol Cabin, and Upper Green River. Figure 3 displays a vicinity map of this alternative.

Details concerning the past and current operation at each feedground are found in the Background Section of this EIS and in Appendix 2, Elk Feedgrounds in Wyoming. The Proposed Action differs from Alternative 2 in that it proposes authorizing a larger feeding area and a water facility at Fish Creek; a haystack yard with 2 hay sheds, horse corrals, water facilities, and additional feeding areas at Patrol Cabin Feedground; and a slightly larger authorized area, a water facility, and a horse corral at Muddy Creek Feedground.

Acres, structures, and maps describing Alternative 3 for each feedground are displayed in Table 3 and Figures 4 through 10. Figure 3 displays a vicinity map of this alternative.

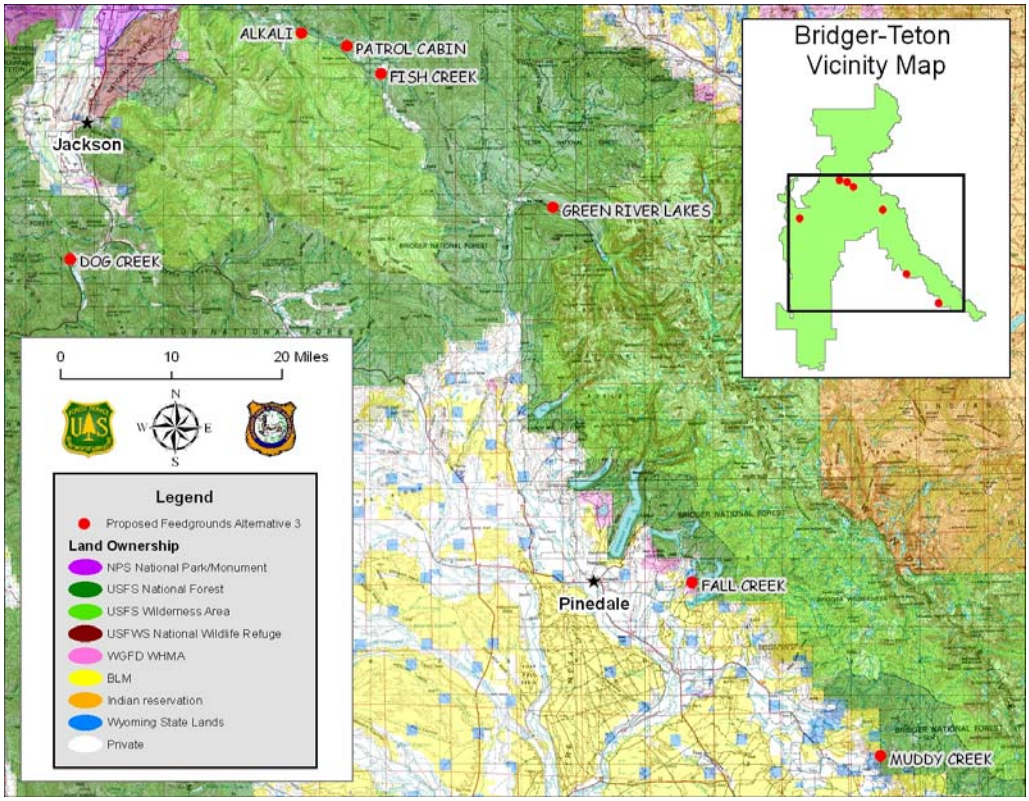

Figure 3. Proposed Feedground locations in Alternative 3

Table 3. Alternative Comparison Table

Acres			
	Alt 1: No Authorization	**Alt 2: No Change in Permitted Area**	**Alt 3: Proposed Action**
Alkali Creek	0	105	105
Dog Creek	0	80	80
Fall Creek	0	54	54
Fish Creek	0	121	168
Muddy Creek	0	19	20
Patrol Cabin	0	0	88
Upper Green	0	58	58
Total	0 acres	437 acres	573 acres
Facilities			
	Alt 1: No Authorization	**Alt 2: No Change in Permitted Area**	**Alt 3: Proposed Action**
Alkali Creek	None Authorized	1 haystack yard with 2 hay sheds, corrals, tack shed, elk trap, and water development	1 haystack yard with 2 hay sheds, corrals, tack shed, elk trap, and water development
Dog Creek	None Authorized	1 haystack yard with 2 hay sheds, corral and tack shed	1 haystack yard with 2 hay sheds, corral and tack shed
Fall Creek	None Authorized	None Authorized	None Authorized
Fish Creek	None Authorized	1 haystack yard with 2 hay sheds, metal Quonset, horse corral, tack shed, and elk trap,	1 haystack yard with 2 hay sheds, metal Quonset, horse corral, tack shed, elk trap, and water facilities
Muddy Creek	None Authorized	1 haystack yard with 2 hay sheds, a permanent elk trap, a portable elk trap, and 0.5 miles of elk proof fence	1 haystack yard with 2 hay sheds, a permanent elk trap, a portable elk trap, 0.5 miles of elk proof fence, horse corral and water facilities
Patrol Cabin	None Authorized	None Authorized	1 haystack yard with 2 hay sheds, horse corrals and water facilities
Upper Green River	None Authorized	3 haystack yards with 3 hay sheds, granary, tack shed, horse corral, elk trap, cabin and horse pasture	3 haystack yards with 3 hay sheds, granary, tack shed, horse corral, elk trap, cabin and horse pasture

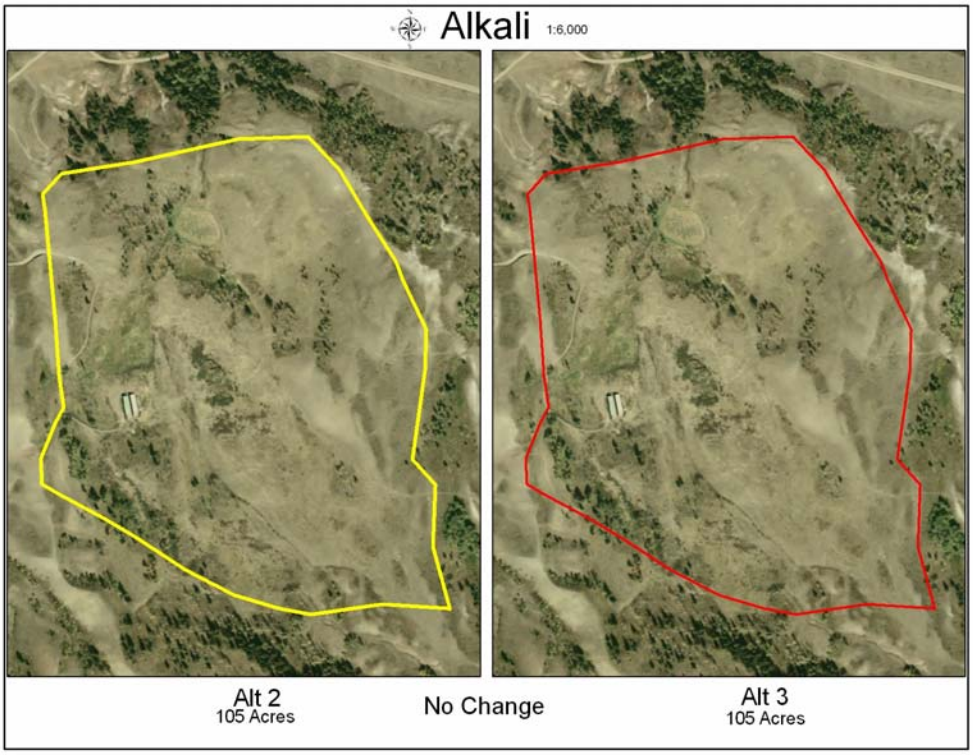

Figure 4. Alkali Creek Feedground

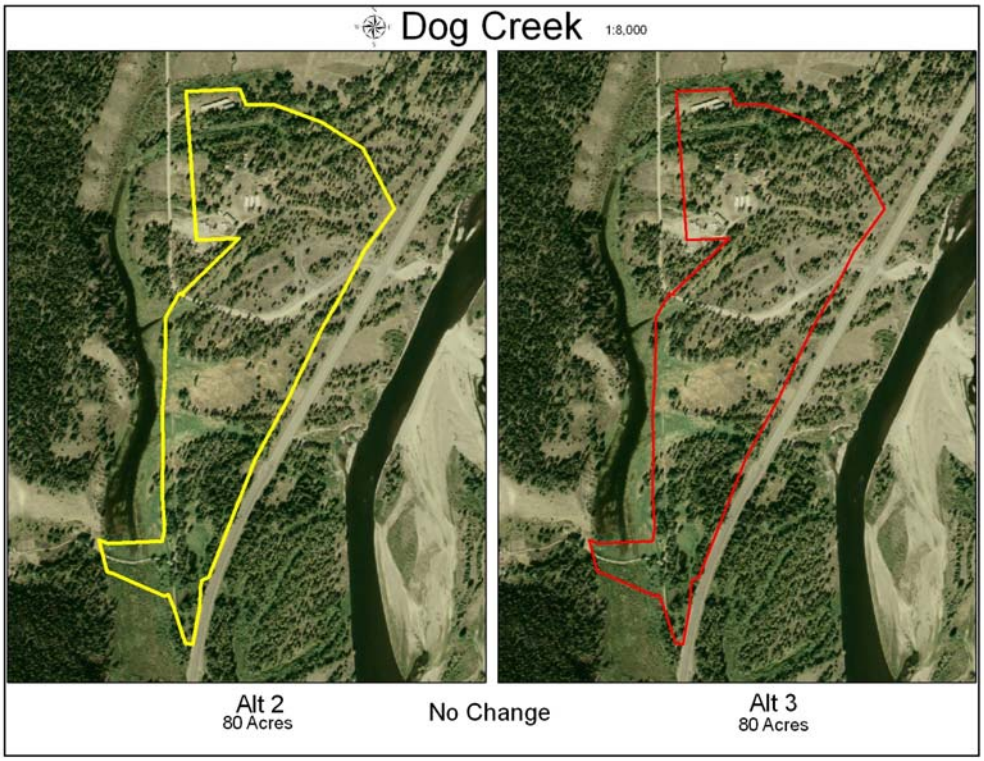

Figure 5. Dog Creek Feedground

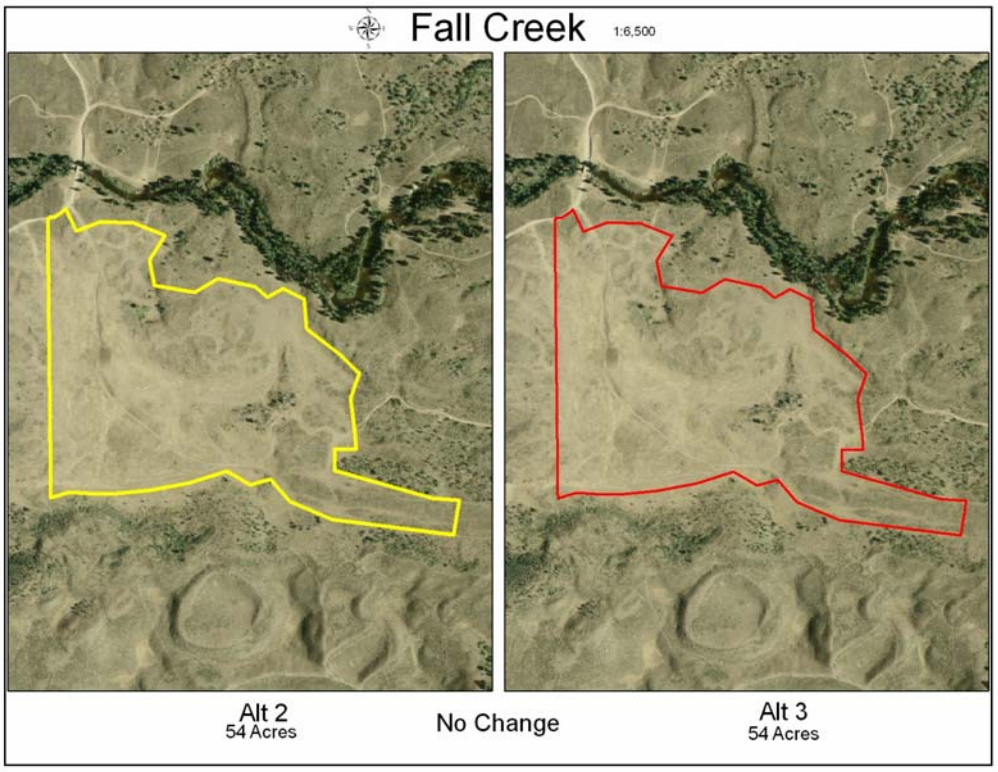

Figure 6. Fall Creek Feedground

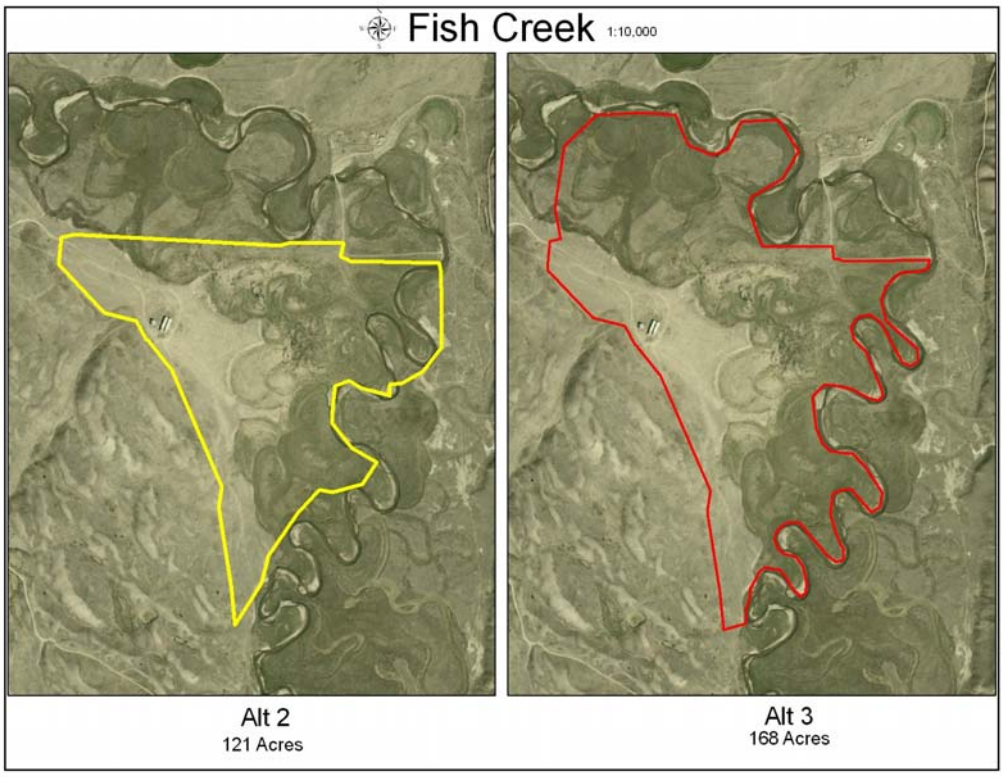

Figure 7. Fish Creek Feedground

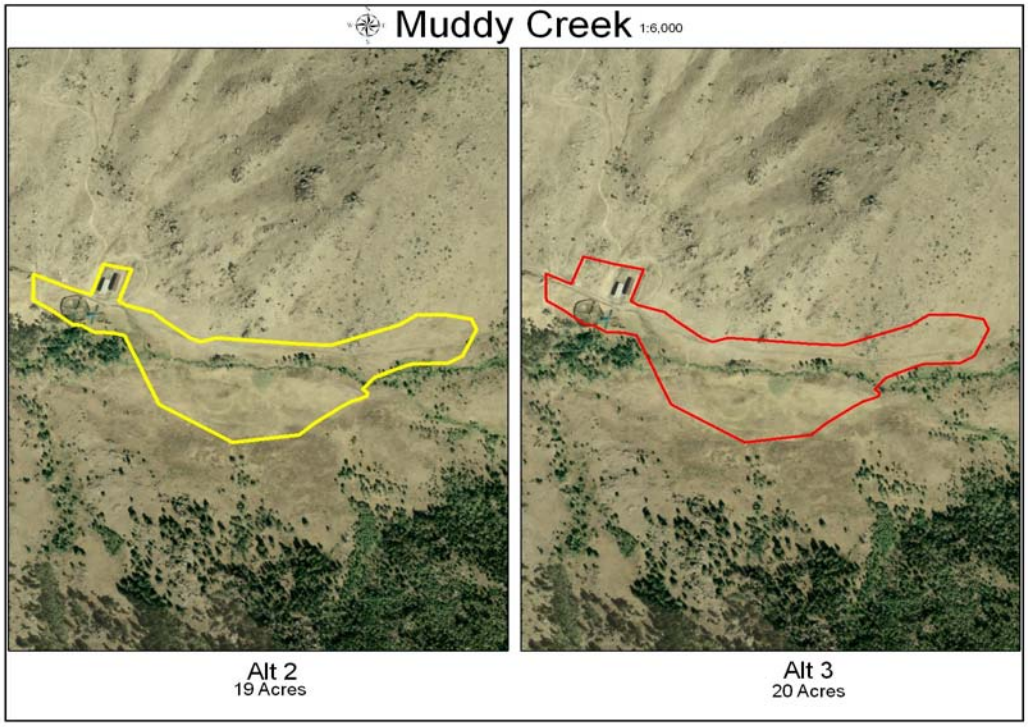

Figure 8. Muddy Creek Feedground

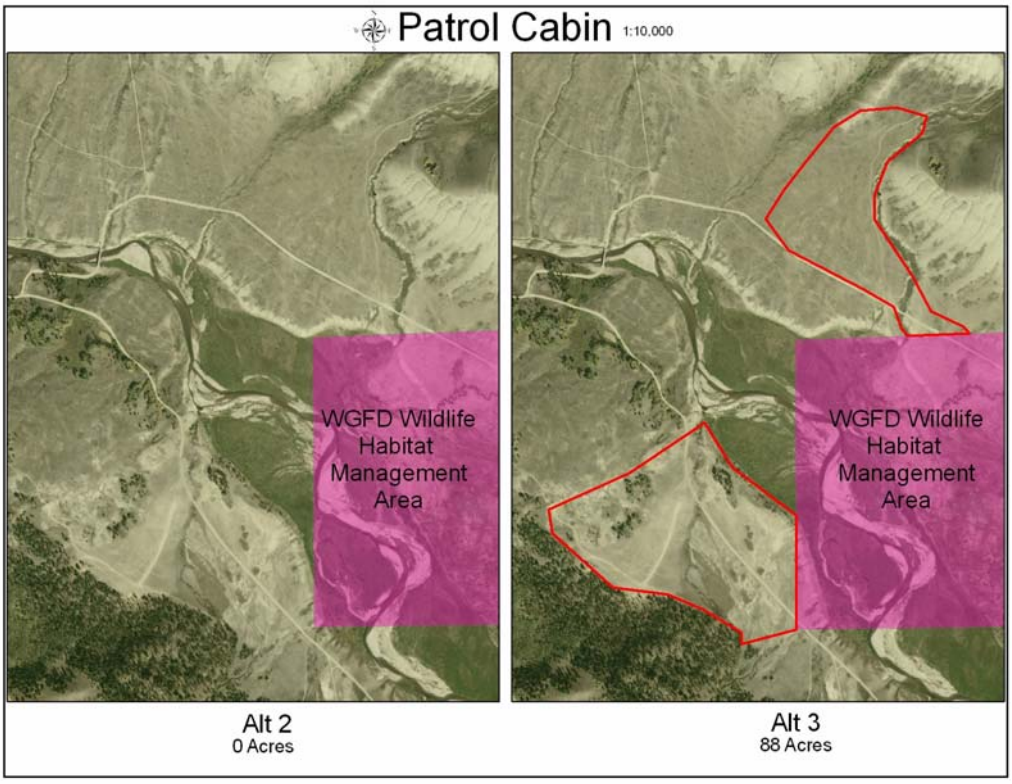

Figure 9. Patrol Cabin Feedground

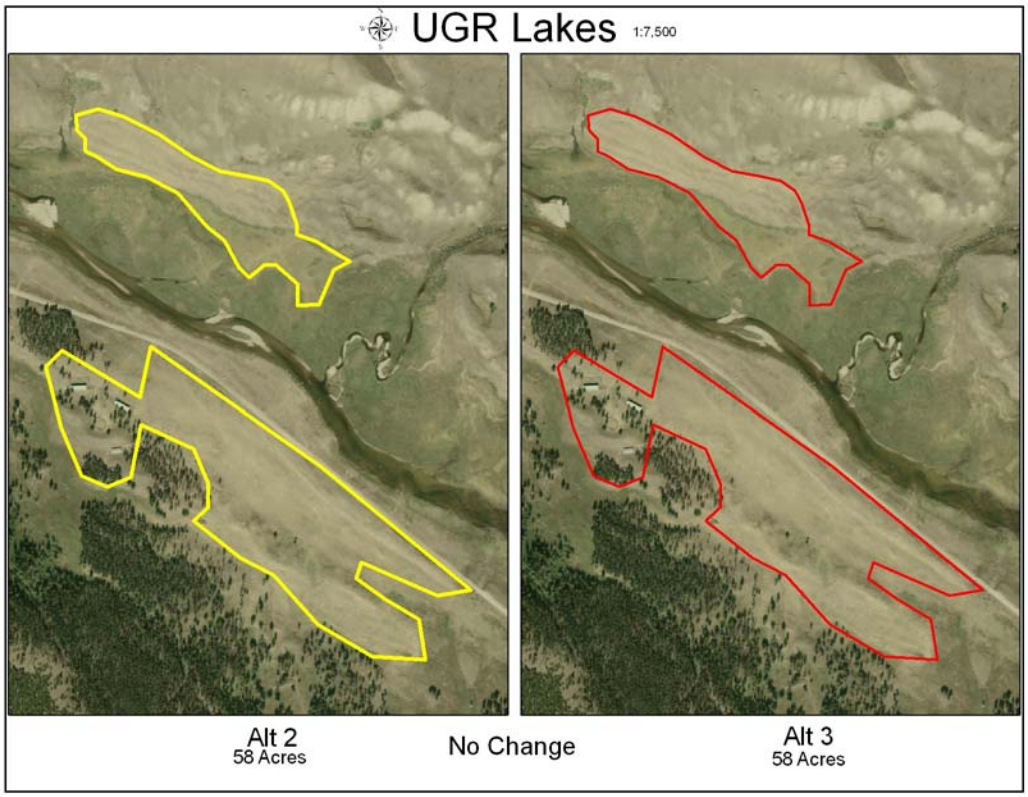

Figure 10. Upper Green River Feedground

Action Common to All Alternatives

All feedgrounds are within designated winter range; therefore public access is restricted from December 1st through 8:00 a.m., May 1st of each year as displayed on the winter travel maps. Motorized recreation use restrictions would be maintained on designated routes adjacent to and within permit areas in all alternatives, including the No Action Alternative where no use is authorized.

Actions Common to Alternatives 2 and 3

1. In Alternatives 2 and 3, WGFC employees and contractors may be permitted to have vehicular access behind locked gates on closed roads during the early and late season of the winter travel period when the roads are free of snow.
2. In Alternatives 2 and 3, WGFC may be permitted to plow snow on roads to access feedgrounds used for testing and removal activities.

Mitigation and Monitoring Common to Alternatives 2 and 3

The following measures are part of the action alternatives. The analysis displayed in Chapter 3 assumes that these practices are implemented for both Alternatives 2 and 3.

1) WGFC would use certified weed free hay to minimize the potential introduction of noxious weeds. The operation would comply with county ordinance where applicable.

2) WGFC would be responsible for monitoring and treating of noxious and invasive weeds within the permit area. In areas adjacent to the permitted area, the Forest Service would treat cheat grass invasions with herbicide and reseed areas with native grass adjacent to feedgrounds where cheat grass is prevalent. Monitoring would occur annually.

3) Forest Service monitoring of soil disturbance class, percent detrimental soil disturbance, and streambank stability at each feedground would occur about every 5 years.

Mitigation in Alternative 3 Only

The following mitigation measures are found only in the Proposed Action, Alternative 3.

4) WGFC would avoid using wetland areas when ever possible when the ground is not frozen. The use of the word "avoid" is deliberate. The Forest Service recognizes that there may be times when it is necessary to use these areas when they are not frozen. The primary goal is that the soil and vegetation in these areas not be damaged and that wildlife that depend on wetlands and streams not be harmed by winter elk management activities. The Forest Service and WGFD share this goal. The Forest Service would expect the WGFC to exercise their best judgment when working around these sensitive habitats.

5) WGFC would avoid feeding in areas within 200 feet of perennial stream banks when ever possible, and especially in the early and late season of feeding when the ground is not frozen. Feeding operations would be conducted over frozen ground as much as possible to reduce the potential for soil compaction from tractors and hoofed animals. See comment regarding "avoid" in # 4 above.

6) The Forest Service and WGFC would reduce stream bank damage by identifying specific locations for stream crossings by tractors and horses with feeding equipment.

Alternatives Considered but Eliminated from Detailed Study

Federal agencies are required by NEPA to rigorously explore and objectively evaluate a reasonable range of alternatives and to briefly discuss the reasons for eliminating alternatives that were not developed in detail (40 CFR 1502.14). Alternatives can be eliminated for various reasons, including that they are outside the scope of the Forest Service's authority or responsibility, duplicative of the alternatives considered in detail, or include components that would cause unnecessary environmental harm.

Public comments received in response to the Proposed Action did not provide suggestions for alternative methods for achieving the purpose and need. Many people wanted the Forest Service to eliminate all elk feeding, improve winter range on the BTNF, and restore historical migration routes.

The Forest Service considered and dismissed from detailed consideration the alternative of stopping all elk feeding and restoring historical migration routes because WGFD will continue to feed elk on private, state, or other federal lands, even if permits are not issued for feedgrounds on

NFS lands. Because this activity would continue, the Forest Service decision cannot affect several of the impacts associated with WGFC's winter elk management activities, including prevalence of disease or disruption of elk migration and other movements. Winter feeding, test and removal, and brucellosis vaccination of elk are elk management activities conducted by WGFC who has jurisdiction over state wildlife. Under various State authorities, the State of Wyoming is also responsible for authorization of the taking of elk, whether it be for sport hunting, disease control for wildlife or agricultural purposes, or to reduce agricultural depredation and other damage to private property.

Another reason that the alternative of stopping all elk feeding and restoring historical migration routes was eliminated from detailed study was that this alternative does not meet the stated purpose and need of this proposal. The decision to be made is whether or not WGFC should be authorized to use NFS lands for its winter elk management activities at the proposed locations, and if so, what terms and conditions should be included in the authorization.

The BTNF is working to improve winter range under other long-term planning efforts. It is unlikely that sufficient winter range improvement can be accomplished on the National Forest in the short-term to fully compensate for the loss of native winter range below the National Forest or to eliminate the need for supplemental winter feeding.

Comparison of Alternatives

This section provides a summary of the effects of implementing each alternative. Information in Table 4 is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.

Table 4. Summary of Effects by Alternative.

	Alternative 1 No Action	**Alternative 2 No Change**	**Alternative 3 Proposed Action**
Project Area - Acres Occupied by Winter Elk Management Special Use Permit	0	437acres	573 acres
Analysis Area - Area Within 1 Mile of the Special Use Permit Area	0	15,907 acres	19,509 acres
Acres of Soil Surface Potentially Detrimentally Disturbed in the Project Area	0 acres after 10 to 20 years	27.13 acres	37.14 acres
Acres of Riparian Vegetation Potentially Affected in the Project Area	0 acres after 10 to 20 years	140 acres	152 acres
Acres of Willow and Riparian Herbland Potentially Affected in the Analysis Area	653 acres	1,393 acres	1,695 acres
Acres of Sagebrush Affected in the Analysis Area	3,432 acres	11,035 acres	11,515 acres

Acres of Aspen Affected in the Analysis Area	500 acres	997 acres	1,049 acres
Distance of Stream Channel Potentially Affected	0.64 miles	2.85 miles	4.26 miles
Potential Effects to Wildlife Species	Improves habitat for species dependent upon aspen, sagebrush, willow, and cottonwood	Maintains current amount degraded habitat for species dependent upon aspen, sagebrush, willow, and cottonwood	Increases amount of degraded habitat for species dependent upon aspen, sagebrush, willow, and cottonwood
Potential for Disease Transmission Elk-to Elk	Elk would be concentrated on 17 existing and 2 new State operated feedgrounds	Elk would be concentrated on 21 existing State operated feedgrounds	Elk would be concentrated on 21 existing State operated feedgrounds, with a total increase of 136 acres of feeding area
Potential for Disease Transmission Elk-to Cattle	The 2 new feedgrounds would be closer to private land than the existing feedgrounds, increasing potential for elk-to-cattle transmission	The existing feedgrounds (and other WGFC measures) would greatly reduce elk-to-cattle transmission	The existing and proposed feedgrounds (and other WGFC measures) would greatly reduce elk-to-cattle transmission
Acres of Vegetation Affected Within Wilderness	278 acres	1,570 acres	2,461 acres
Acres of Vegetation Affected Within Wilderness Study Areas	469 acres	1,019 acres	1,019 acres